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Distinguishing polysemy from homonymy of the English nouns by means of semantic analysis

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Abstract. The article proposes to take a view of a possible way of distinguishing such semantic phenomena as polysemy and homonymy by means of profound semantic analysis of some nouns. These nouns were chosen from four lexicographic sources using several criteria, among which the etymological one is the most important at this level of research. The methods are based on the classification of inner semantic categories of the lexical meaning of the noun which consists in portioning all meanings of the noun into regular polysemes, lexico-semantic variants, syncrets, heterosemes and homonyms.

Keywords: polysemy, homonymy, syncretism, heterosemy, lexico-semantic variation, lexico-semantic unit

The distinction between polysemy and various related phenomena remains a debating point among linguists. In fact, its lexicographical aspect is a matter of the utmost importance because with every single dictionary the criteria delimiting polysemy and homonymy dramatically differ. Therefore, a holistic approach must be implemented to find linguistic means of this distinction.

From the very outset our investigation was focused on finding the evidence of homonymy in dictionary definitions with subsequent verification of the obtained results in the corpus. Namely, four English dictionaries (two monolingual and two bilingual) were chosen in this respect. The research has yielded 353 nouns that possess serious discrepancies in definitions, specifically, those in which polysemy should be treated as homonymy or vice versa. Meanwhile, this article represents only one of the inherent aspects of the procedure of homonymy extraction within the category of English noun, the method and some preliminary results.

The concepts of polysemy and homonymy are basically related to the dynamic transition of meaning. Homonymy itself is usually a result of synchronic transition and is a climax of meaning variation. Most linguists define polysemy as the case where the word has two or more conceptually related meanings or variants of the same, core meaning [7, p. 552; 11, p. 101; 13, p.61]. The meanings of a polysemous word may be historically, psychologically or metaphorically related [8, p. 228]. At the same time, L. Kudryevatykh argues that in the structure of polysemous meanings there should be the semantic shift of implication (that is metonymy) or/and similation (metaphor). Thus, we have taken L. Kudryevatych's mode of classification of meanings in the semantic structure of words and adjusted it to nouns [15]. This classification presupposes such categories which should be clear-cut and have sufficient distinctive features: pure polysemy, lexico-semantic variation, semantic syncretism, heterosemy and homonymy.

Lexico-semantic variation is characterized by Jackendoff as "inexact and unspecifically defined" meaning with "blurred set" of associative features in the structure of the word [3, p. 116]. As a matter of fact, under this notion we understand the meanings which are synonyms or near-synonyms to the basic meaning, but they are not supposed to be in any hierarchy. Though, it is important to mention that lexico-semantic variation is also immanent to figurative, metaphorical meanings.

Semantic syncretism according to L. Kudryevatych is observed when several meanings are realized simultaneously through the same morphological form. To put it

differently, it is the way of representation of various scientific terms which acquired additional, specific shades of meaning in the sphere of functioning. Moreover, this semantic category comprises non-terminological examples of metonymy, so there must be the shift of implication mentioned above. Meanwhile, *heterosemy* is as a result of the so-called "semantic bleaching", when additional connotations can be recognized exclusively by certain social groups and therefore only intuitively explained by the rest of people. The pragmatic features (or components) restored in such a way are faded but renewed under certain contextual conditions or with some encyclopedic enquiries.

J. Hurford and B. Heasley claim that homonymy involves ambiguity: "A case of homonymy is one of the ambiguous word, those different senses are far apart from each other and not obviously related to each other in any way"[2, p.123].Though, we claim that ambiguity should be taken for a term comprising not only polysemy and homonymy but heterosemy as well.

According to J. Jastrzembski, etymology plays a crucial role in the process of meaning distinction because words with multiple meanings associated with a single derivation are accessed faster than those with multiple derivations [5]. In behavioral studies there are two contrasted viewpoints concerning the mode of representation of polysemy and homonymy in the mental lexicon [6; 1]. The experiments supporting the opposite view have shown that polysemous words embedded in phrasal contexts and homonymous words function the same but comprehension depends on the consistency of the context. E. Kleposniotou suggests that processing polysemous words tend to be facilitated due to no meaning competition typical of homonymous ones. However, it is possibly to infer that there may be a transitional, buffer zone in the mental lexicon which can also facilitate or stumble the process of understanding, that is heterosemy. In course of our investigation we have found out that some meanings within the category of heterosemy remain more "polysemous" and one or more of their derivatives can develop into the category of homonymy. Thus, the described above "meaning competition" can exist not only in homonymy.

We have previously chosen a set of criteria distinguishing polysemy, its types and transitional types from homonymy: the etymological criterion, the criterion of relatedness of word formation ranges and the semantic criterion. There is hardly any universal criterion and the analysis has proved this hypothesis. The etymological explanations why certain meanings should be related and placed

into one dictionary entry are not always tangible and in some cases they are even scarce. We have established that, for instance the nouns ***palm₁***, Ukr."*долоня*" (MWD: "*the somewhat concave part of the human hand between the bases of the fingers and the wrist or the corresponding part of the forefoot of a lower mammal*") and ***palm₂*** Ukr."*пальма*" (MWD: *any of a family (Palmae syn. Arecaceae) of mostly tropical or subtropical monocotyledonous trees, shrubs, or vines with usu. a simple stem and a terminal crown of large pinnate or fan-shaped leaves*) have common etymology but most dictionaries, including MWD regard them as homonyms whereas analogous cases of ***pastor*** 1) Ukr. "*духовний пастир*", MWD: *a spiritual overseer* and 2) Ukr. "*орн. рожевий шпак*" (Zagnitko), "*pink starling*" are represented as polysemes, not homonyms as they should be.

The etymological criterion was used to compare LSUs within the semantic structures of the nouns under the following conditions:

1) in cases when the etymological commentary says that historical data necessary for the explanation of the meaning or meanings is not enough or if they are too controversial, see, for example ***barnacle, catling, doughboy, damper, faggot, fuzz***. At the same time the absence of these data when "origin unknown" implies searching for another criterion, for example, the semantic one; 2) if at an early stage of development the noun associatively approximated to another noun (not related anyhow) and consequently gained unusual connotations due to false etymology and these connotations got assigned. Take nouns ***faker*** i ***fakir***, ***curst*** i ***crust***, for example; 3) if the derivative meaning has different spellings (a simple noun has a compound counterpart with another entry in the dictionary): ***adjutant*** and ***adjutant-bird*** or ***adjutant-stork***, ***chanter*** and ***horse-chanter***, ***lash*** and ***eyelash*** etc; 4) if there is a huge time gap between the nominative non-derivative (basic) and derivative meanings, that is to say one cannot exclude sudden appearance of the new derivative meaning. To illustrate, figurative derivatives in ***cat***, ***beaver***, ***buff***, ***fairy*** are somewhat artificially motivated. The senses obtained this way are mostly derogative or humiliating; 5) if transitional links between the nominative non-derivative and derivative meanings have been lost and/or when the origin of one or another is not clear, for instance, ***kudos*** in the meaning of "*money, capital*".

The analysis of lexicographical data was carried out in the way as follows. First, 353 nouns were selected from Longman Dictionary of Contemporary English (LDCE) [12], Merriam Webster's Dictionary, Longman Dictionary of Contemporary English (MWD) [9], Big Modern English-Ukrainian Ukrainian-English Dictionary by A. Zaghnitko (Zaghnitko) [17] and New Big English-Russian Dictionary by Y. Apresyan (Apresyan) [14]. Next, the semantic structures of these nouns were characterized by certain qualitative and quantitative parameters. Namely, we grouped their meanings generally into LSUs, lexico-semantic units (not variants like in traditional classifications) and distinguished different semantic types within them: pure polysemes, lexico-semantic variants, syncretes, heterosemes and homonyms. We understand LSU as a structural element of the system of lexical meaning of hyper-lexeme, which can either synonymize the basic meaning, or specify it, or be in relation of ambiguity. The

quantitative parameters included the division of nouns in concordance with the polysemous zones, when the noun refers to 1-3, 4-5, 6-10, 11↗ zones respectively, depending on the number of LSUs in its semantic structure. It should be noted that the actual number of meanings and that one which is formally stated in the dictionaries are different, so we had to mention both of them to compare the boundaries of lexico-semantic variation of noun meanings. The results have shown how LSUs refer to each category of lexico-semantic transformation: pure polysemy (including metaphor), lexico-semantic variance (no metaphor or metonymy), syncretism (including metonymy), heterosemy (possible "bleached" metaphor or metonymy) and homonymy (of any nature).

As far as heterosemy is concerned, it was revealed in the system of lexical meanings of the noun in the following cases:

1) when ambiguity occurred between potentially heterosemous LSU and another LSU or LSUs which share the same sphere of usage. If so, the remotest one among them should be homonymous; 2) when the motivation of the LSU is conventional, in other words, it can be only understood by the members of a close social group talking on the criminal, military or other jargon; 3) if the LSU is assaulting or pejorative, when its negativity is strikingly conspicuous among other LSUs; 4) if semantic components in the structure of LSE are mutually exclusive; 5) if this LSU appeared much more later than the nominative-non-derivative one; 6) if LSU belongs to a territorial or dialectal variant of English; 7) if understanding the etymological data presupposes special linguistic, ethnological and cultural, professional or literary competence.

To explicate, how our method works, let's take a noun and analyze its structure. The noun ***duck*** is semantically represented in the dictionaries having the formal number of meanings ranging from 6 to 10 and the factual number LSUs from 6 to 27. So it belongs to the the zone of the so-called "productive" or "condensed" polysemy in linguistics [16]. The basic, nominative non-productive meaning is: (MWD) 1 *any of various swimming birds (family Anatidae, the duck family) in which the neck and legs are short, the feet typically webbed, the bill often broad and flat, and the sexes usu. different from each other in plumage.* Its closely related LSUs are 1b: *the flesh of any of these birds used as food* which refers to the category of syncretism due to the metonymic shift (living being → its flesh) and LSU 2 *a female duck also* belongs to syncrets, because there is specification of meaning regarding sex of this living-being. A diminutive LSU, which is chiefly British: 3 *darling* is a metaphorical one and is an example of regular polysemy. As a term of endearment, it was attested, according to Online Etymology Dictionary (OED) [10], from 1580s. We have found three heterosemic LSUs: 1) *in sport, a player who didn't score a goal* (Ukr. *спорт. гравець, який не набрав жодного очка*). LDCE has also: *a score of zero by a batsman in a game of cricket*, which can be taken for the metonymic LSU developed from the former. OED also states that "the figurative sense of "throwing something away recklessly" is c.1600". So the heterosemic LSE *a score of zero by a batsman in a game of cricket* may have developed from it, but we cannot say it for sure because there is not enough etymological information. 2) *a squanderer (someone who*

spends money freely or foolishly) (Zaghnitko): Ukr. *розтратник*, its derivative *a bankrupt* can be a lexically variated synonym or a syncret. However, we referred it to the former category. 3). (Zagnitko): Ukr. *військ. розм. вантажівка-амфібія, an amphibious military truck used during World War II.* Meanwhile, LSU *Slang a person, especially one thought of as peculiar* is the only one to be treated as homonymous because it's the most abstract of all.

To conclude, it should be noted that the method described above facilitates the challenging process of draw-ing the border line between internal semantic categories of the English noun, such as polysemy, homonymy and transitional ones, which in its turn is rather time consuming. In fact, it is almost impossible to predict to what extent this or that meaning may be productive when talking about significant core transformations. So finding final decisions concerning delimiting homonymy and polysemy is on the way, most likely with the help of distributional data in various English corpora.

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Навроцкая И.Н.
Разграничение полисемии и омонимии английских имен существительных посредством семантического анализа
Аннотация. В статье предоставляется на рассмотрение один из возможных способов разграничения таких семантических явлений, как полисемия и омонимия посредством глубокого анализа системы лексического значения некоторых имен существительных. Эти существительные были отобраны в результате сплошной выборки из четырех лексикографических источников с использованием нескольких критериев, главным с которых на данном этапе исследования выступает этимологический. В основе методики лежит классификация внутренних семантических категорий лексического значения имени существительного, которая состоит в распределении всех значений, которые называются лексико-семантическими единицами, на регулярные полисемы, лексико-семантические варианты, синкреты, гетеросемы и омонимы.
*Ключевые слова***:** *полисемия, омонимия, синкретизм, гетеросемия, лексико-семантическая вариантность, лексико-семантическая единица*

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