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A lexical pragmatic account of polysemy¹

Abstract

Meanings of a word are traditionally considered a fixed list whose items can be enumerated. Recent trends in research into lexical meanings leave more room for encyclopaedic knowledge and contextual factors to construct full-fledged word meanings. An account of polysemy from a lexical pragmatic perspective can be based on the assumption that words have a wide range of various forms of underspecified lexical-semantic representations and, therefore, they reach their full meanings through considerable pragmatic inference relying on encyclopaedic information or on immediate and extended contexts. In addition, in doing so, one can simply answer the intricate question of traditional lexicology and lexicography which concerns the primary meaning of a polysemous word. The lexically underspecified meaning is primary and all the pragmatically constructed meanings are secondary. As presented with the help of thorough analyses of Hungarian and Russian nouns and verbs, such a lexical pragmatic treatment of polysemy makes it possible to reduce the ubiquitous meaning proliferation in contexts/constructions. However, there also seems to be some limitations to this approach. Two groups of cases can be distinguished: a) metonymies and metaphors other than ones resulted by the concretization of underspecified meaning representations and b) words with more than one core meaning.

Keywords: polysemy, lexical pragmatics, modes of underspecification, metonymies and metaphors related to underspecification

1 Introduction

Polysemy is usually characterized as the association of a single word form with two or several related meanings. In traditional lexicology and lexicography some meanings of polysemous words are connected via metonymical and metaphorical chains but others are treated as distinct only because they belong to different syntactic patterns of the same word form. Moreover, meanings of a word are considered a fixed list whose items can be enumerated. Recent trends in research into lexical meanings question such a view of polysemy while they leave more room for encyclopaedic knowledge and contextual factors to construct full-fledged word meanings (see, e.g., Falkum and Vicente 2015).

In the present paper, I argue for an account of polysemy from a lexical pragmatic perspective elaborated in my own work (Bibok 2014b, 2017) after a critical evaluation of Two-level Conceptual Semantics (Bierwisch 1983b, 1996), Generative Lexicon Theory (Pustejovsky 1995, 1998) and Relevance Theory (Sperber and Wilson 1986/1995, 2012). First, on the basis

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of my previous thorough analyses of Hungarian and Russian nouns and verbs, I propose that words have an underspecified lexical-semantic representation. As outlined in Section 2, the wide range of various forms of underspecification, also used in combination with each other in a single representation, includes the following (in order of increasing abstractness): a) prototypes, which tolerate deviations in representing categories, b) bracketed optional parts of representations, c) lexical-semantic structures interpretable in a double way, d) components abstracted from concrete instantiations and e) use of variables for components yielded by contextual information. Hence, words reach their full meanings through considerable pragmatic inference relying on encyclopaedic information or on immediate and extended contexts, i.e. on contexts inside and outside utterances. Second, although in such a way it is possible to reduce the ubiquitous meaning proliferation, there also seems to be some limitations, presented in Section 3 below, because every meaning cannot be constructed on the basis of underspecified representations. Then the paper ends with conclusions in Section 4.

2 Modes of underspecification

2.1 Prototypes, tolerating some untypical cases in representing categories

Let us take the Russian verb *rezat'* 'cut through pressing'. Due to the lack of space I cannot go into the details of its analysis, for them I rather refer the reader to Bibok (2016a). Here and now it is sufficient to present what parts the lexical-semantic representation of Russian *rezat'* 'cut through pressing' consists of. The description in (1a) shows the core of its meaning expressed periphrastically and then in (1b) it is translated into a formalized metalanguage of semantic predicates:

- (1) a. 'using Z such that Z presses Y, X causes Y to become not whole';
 b. [[[x USE z] : [z PRESS y]] CAUSE [BECOME [not WHOLE y]]].

However, imagine the following situation: John puts the edge of a knife on the bread, then a heavy stone on the knife, causing the distortion of bread, i.e. causing the bread to become not whole. This event could hardly be designated by means of the single lexeme *rezat'* 'cut through pressing' as in (2).

- (2) Džon režet xleb nožom.
 John.NOM² cuts bread.ACC knife.INS
 'John is cutting bread with a knife.'

Instead, the above-mentioned event would be expressed with an analytic construction: *Doing this and this, he causes that...*

Even though someone uses instruments with a sharp edge in standard, or normal, ways, typical and non-typical situations of *rezat'* 'cut through pressing' can appear. For instance, cutting bread into two or several pieces with a knife seems to be more typical than cutting it in

² The glosses are not intended to capture all morphological properties but indicate the necessary ones for the present purposes. The abbreviations used in the glosses throughout this paper are the following: 3PL = third person plural, 3SG = third person singular, ABL = ablative, ACC = accusative, ELA = elative, FEM = feminine, INE = inessive, INS = instrumental, NOM = nominative, PRF = prefix, PST = past tense, SG = singular, SUB = sublativ, SUP = superessive and TEM = temporal.

such a way that it is distorted but is not divided into separate pieces. Even less typical is an event when we try to cut a board into pieces with a knife. In addition, it is not untypical for the verb *rezat* ‘cut through pressing’ to denote cutting events carried out with another kind of sharp-edged instrument, scissors, called *nožnicy* in Russian.

Consequently, we need to supplement the core meaning in (1) with the indication of the lexical stereotype in (3), containing the following encyclopaedic information, perhaps, not propositional but procedural in its nature:

(3) ‘standard ways of using Z, which X can cut Y with through pressing’,

and with the indication of the prototype in (4):

(4) ‘using sharp-edged instruments such as a knife, a slicing machine or a pair of scissors to cause the distortion of, e.g., bread, meat or paper through pressing and dividing it into pieces’.

Since necessary relational predicate components are not sufficient to identify the denotation but the prototype has to be taken into account to categorize cases, deviating from, however, fairly similar to it, as members of cutting through pressing, the verb *rezat* ‘cut through pressing’ has a partly relational meaning (*gemischt relationale Bedeutung*) in the sense of Schwarze (1982). In contrast to words with partly relational meanings, in lexical-semantic representations of words with purely relational meanings, like the Hungarian verbs of communication *hív* ‘call’ and *küld* ‘send’, prototypes only play a very different role to tell apart between typical and atypical cases inside the same, though underspecified, conceptual domains (Bibok 1998).

2.2 *Optional parts of representations*

Consider another Russian example in (5) with the verb *rezat* ‘cut through pressing’, which is prefixed in the present case.

(5) Prodavščica narezala kolbasu tonkimi kuskami
 salesgirl.NOM PRF.cut.PST.SG.FEM salami.ACC thin pieces.INS
 na voščenuju bumagu.
 on wax paper.ACC
 ‘The salesgirl sliced the salami into thin pieces onto the wax paper.’

How can adverbial directional phrases appear with this Russian (prefixed) verb expressing cutting, if it had not had it before? To get an answer, let us develop the lexical-semantic representation in (1) one step further and take into consideration the following (Bibok 2016a): parts coming into being by cutting **typically** – as world knowledge dictates – move and occupy a spatial position while *y* becomes not a whole. Instead of adding this piece of typical, encyclopaedic information to the core meaning representation in (1) as a separate prototype description (see (4) above), it may be built into (1) together with the predicate EXIST as its optional parts in parentheses. Now one gets a modified representation for the core meaning of *rezat* ‘cut through pressing’ (leaving aside the meaning of the prefix for the sake of simplicity):

- (6) [[[x USE z] : [z PRESS y]] CAUSE [[[BECOME [not WHOLE y]] (: [[BECOME [EXIST w]] (: [w MOVE_TO v]])]]],
 where 1. w = parts of y, i.e. [w PARTS_OF y],
 2. the parentheses express optionality.³

2.3 Lexical-semantic structures interpretable in a double way

Now consider (7).

- (7) a. Az anya zsírt ken a kenyérré.
 the mother.NOM fat.ACC smears the bread.SUB
 ‘The mother is smearing fat on the bread.’
- b. Az anya zsírral keni a kenyeret.
 the mother.NOM fat.INS smears the bread.ACC
 ‘The mother is smearing the bread with fat.’

The Hungarian verb *ken* (*X Y-t Z-re*) ‘smear (X, Y on Z)’ in (7a) means that ‘X causes Y to move onto Z’, what can be added with the following specifications: Y = mass, Z = surface and the causation includes smoothing movements of the hand. At the same time the verb *ken* (*X Z-t Y-nal*) ‘smear (X, Z with Y)’ in (7b) means that ‘X causes Z to change state by means of moving Y onto it’, where the change of state can be concretized as being covered partially or totally. Now, taking our methodological stance that (constructional) meanings of a verb condense into one underspecified meaning, one can come to a conclusion that the verb at stake has the following underspecified semantic representation:

- (8) ‘with smoothing movements of the hand, X causes a mass Y to move onto a surface Z,
 and
 X causes a surface Z to be covered partially or totally with a mass Y’.

Starting from the lexicon, containing the verb *ken* ‘smear’ with underspecified representation in (8), the constructional meanings of the given verb correspond to the two possible interpretations of (8) alternating with each other (Bibok 2014c). When a mass is focused, or profiled (see (7a)), the constructional meaning is equal to the part of (8) which is before the conjunction *and*, i.e., ‘with smoothing movements of the hand, X causes a mass Y to move onto a surface Z’. In the opposite case, when a surface comes into prominence (see (7b)), the constructional meaning is ‘(with smoothing movements of the hand) X causes a surface Z to be covered partially or totally with a mass Y’, i.e., the part of (8) figuring after the conjunction *and*.⁴

³ For other optional components, such as ACT and FIN, see Bibok (2010).

⁴ For an analysis of similar Russian data, see Bibok (2014a).

2.4 Components abstracted from concrete instantiations

Then let us take (9).

- (9) Péter nyitja a szobát/kalitkát/garázst.
 Péter.NOM opens the room/bird-cage/garage.ACC
 ‘Péter is opening the room/bird-cage/garage.’

The meaning of the verb *nyit* ‘open’ in (9) can be expressed periphrastically and in a semantic metalanguage as in (10) (Bibok 2011).

- (10) a. ‘X causes some region related to Z to become accessible via Y’;
 b. [x CAUSE [BECOME [[F z] ACCESSIBLE_VIA y]],
 where F = function matching Z to a region related to Z.

The component ACCESSIBLE_VIA may apply to nouns such as *school, museum, theatre, shop*, etc., for which the polysemy of *school*-type nouns is characteristic. The meanings ‘building’ and ‘institution’ alternate in their polysemous lexical structure and other secondary meanings are connected to them. What comes into play here besides the meaning ‘building’ is ‘activities carried out by people belonging to institutions’. So, we should conceive the component ACCESSIBLE_VIA in (10) as a fairly abstract component. It can be concretized as meanings referring to physical space in which we move, or activities, depending on what semantic types the syntactic objects figuring in (immediate) contexts belong to. This mechanism of underspecification is analogous to interpretations ‘moving in physical space’ and ‘change in affiliation’ of the abstract MOVE in cases such as *leave the school* (= ‘building’) and *leave school* (= ‘institution’) (cf. 2.5 below).⁵ As an illustrative example with *nyit* ‘open’, one can consider (11).

- (11) 9-kor/szeptemberben nyitják a boltot/múzeumot.
 9.TEM/September.INE open.3PL the shop/museum.ACC
 ‘The shop/museum will open at 9 o’clock/in September.’

In accordance with what has been said right above, (11) can be interpreted in two ways: ‘the building will become accessible’ or ‘some activities will become accessible’. Moreover, the time adverbials in (11) typically influence whether accessibility of given activities is on a regular or newly forming basis.

It is worth noting that HAVE occurring in the representation of *lose* also seems to be a meaning component with a similar broad set of interpretations belonging to one and the same abstract possession. See examples in (12) taken from Bierwisch (1983a: 68):

⁵ Abstract meaning components similar to MOVE are assumed by Jackendoff (1990: 25–27), who applies GO, BE and STAY appearing in semantic representations of *go/change, be* and *keep*, respectively, to various semantic fields (space, possession, ascription of properties, scheduling of activities). Despite a different range of applicability of such abstract meaning components as MOVE or GO, one can reasonably think of one and the same conceptual interpretation domain, namely of change from a state to another state. – As for MOVE, it can appear in a more generalized form in another respect: it can mean a change of not only physical place but also of physical position (see Wierzbicka 1996: 82–83).

- (12) a. John lost his money, as he was not aware of the hole in his pocket.
 b. John lost his money by speculating at the stock market.
 c. John lost his friend in the overcrowded subway station.
 d. John lost his friend in a tragic car accident.
 e. John lost his friend, as he could never suppress bad jokes about him.

2.5 Variables for components yielded by contextual information

It suffices to demonstrate this possibility of underspecification with an example which was indicated in subsection 2.4, namely with *school*-type nouns (cf. Bibok 2004). Consider (13).

- (13) a. 1975-ben Péter elment az iskolából.
 1975.INE Péter.NOM left.3SG the school.ELA
 ‘In 1975 Péter left school.’
 b. Délelőtt tíz órakor Péter elment az iskolából.
 morning ten o'clock.TEM Péter.NOM left.3SG the school.ELA
 ‘At ten o'clock in the morning Péter left the school.’

In the context of the time adverbial in (13a), the noun *iskola* ‘school’ most likely refers to an institution, and in (13b) it can be typically interpreted as a building. These two different meanings of *iskola* ‘school’ derive from an underspecified meaning given in (14).

- (14) a. ‘X has the goal to provide for teaching/learning processes’;
 b. [x GOAL w], where *w* = teaching/learning processes.

The literal meanings of *iskola* ‘school’ in (13a) and (13b) can be derived through conceptual shift by means of the concretizing variable *x* as an institution and as a building, respectively. Although these so-called primary literal meanings (‘institution’ and ‘building’) can be directly derived from the underspecified meaning, its non-primary literal meanings cannot but they appear by way of the derivation from specific primary meanings, similarly to the forming of non-basic meanings in traditional lexicology and lexicography. Surely, the non-primary meanings ‘type of institution’ and ‘ensemble of people’ (cf. English expressions like *the school as one of the most important inventions of human civilization* and *the school going for a trip*) are attached to conceptual units ‘institution’ and/or ‘building’. Furthermore, the non-primary meaning ‘activities’ (cf. *the school annoying somebody*) has to be added to the conceptual unit ‘ensemble of people’. Despite the structured character of literal meanings, they all remain literal in the sense that they figure in neutral contexts, i.e., in contexts which do not require the deletion or re-interpretation of previously established meaning components, which is necessary in the case of metaphorical meanings proper.⁶

⁶ For variables for predicates, including implicit ones, see Bibok (1998) and Bibok (2016b).

3 Limitations to the approach presented in Section 2

Although it is possible to reduce the ubiquitous meaning proliferation via “generating” word meanings appearing in utterances on the basis of underspecified representations (see subsections 2.1–2.5), there seems to be limitations to such an approach. I attempt to distinguish the following two groups of cases: a) metonymies and metaphors other than ones resulted by the concretization of underspecified meaning representations and b) words with more than one core meaning.

3.1 *Metonymies and metaphors beyond underspecified meaning representations*

In Section 2 traditional metonymies and metaphors have been treated as meanings coming about on the basis of underspecified meaning representations. Let us turn again to *school*-type nouns mentioned in connection with (11). The relation between the ‘building’ sense and ‘institution’ sense traditionally belongs to metonymy but according to the just proposed new analysis both of them are yielded from an underspecified representation in (14) via so-called conceptual shift. As for traditional metaphors, one can take into account *lose* in (12d) and *elmegy* ‘leave’ in (13b) (for the latter and the synonymous *kilép* ‘leave’, see Bárczi and Országh 1959–1962). Similarity between two kinds of moving and having is grasped in the above analyses as conceptual differentiation of abstract components inside one and the same (conceptual) domain. However, there are contexts which require the deletion or re-interpretation of previously established meaning components. Based on our world knowledge, several regular mechanisms result in metonymical and metaphorical expressions. Cf.:

(15) The ham sandwich is sitting at table 20.

(16) Have you seen the lion in zoo/toy shop/gallery?

In (15), well-known example from Nunberg (1979: 149), metonymy works by the contiguity between the ham sandwich and the customer who ordered it. In (16) metaphor is based upon the similarity between a lion as a natural kind and its various representations (Bibok 2000: 60).⁷

Nevertheless, a metaphorical sense may be lexicalized as well. Cf.:

- (17) a. A csoki elolvadt a napon.
 the candy(_bar).NOM melted.3SG the sun.SUP
 ‘The candy (bar) melted in the sun.’
- b. Péter elolvadt a boldogságtól.
 Péter.NOM melted.3SG the happiness.ABL
 ‘Péter melted from happiness.’

Let us realize that unlike (17a), where the candy bar changed to a liquid from heat, (17b) is not about whether or not Péter became liquid – despite some similarities regarding feelings connected to warmth and conceptualized as liquids. Consequently, the component LIQUID

⁷ Another rule-like mechanism of metaphorical extension is personification (Bibok 2000: 60), which is also wildly used as a common literary tool.

is to be deleted, or re-interpreted and hence a metaphorical meaning has to be fixed with the verb *elolvad* ‘melt’ (cf. Pusztai 2003).⁸

3.2 Words with more than one core meaning

The Hungarian verb of communication *hív* ‘call’, mentioned above in 2.1 as a word with purely relational meaning, can denote another action, namely that of giving a name (Bibok 1998: 445–446). For the sake of simplicity, a pair of corresponding English examples are presented in (18) below.

- (18) a. Peter called his friend to the cinema.
 b. The Russian tsar Ivan IV was called the “Terrible”.

It seems rather obvious that calling as letting somebody know about his/her moving somewhere is desired and calling as assigning a name to someone can only be different – although connected – core meanings. Thus, as on the basis of these paraphrases it have become clear, the verb *hív* ‘call’ belongs to the type of polysemous words that has more than one core meaning.

Another illustration can be provided from the class of nouns. The Hungarian *opera* ‘opera house; opera’ is not only a *school*-type noun but also a *book*-type noun (Bibok 1999). Meanings of these two types of nouns, namely ‘building’ and ‘institution’ as well as ‘physical object’ and ‘information structure’, are to be reasonably considered ones belonging to two separate cores, otherwise related to each other.

4 Conclusions

The lexical pragmatic treatment of polysemy, based on underspecified lexical-semantic representations and on considerable pragmatic inference in Section 2, makes it possible to reduce the ubiquitous meaning proliferation in contexts/constructions to a certain extent outlined in Section 3. In addition, in doing so, one can simply answer the intricate question of traditional lexicology and lexicography which concerns the primary meaning of a polysemous word. The lexically underspecified meaning is primary and all the pragmatically constructed meanings are secondary. It is worth emphasizing that the main concern of the present paper is with representations behind the processes taking place in actual utterances of exchanging our ideas and thoughts and not with these processes themselves.

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⁸ For other cases of lexicalized metaphor, see Bibok (2000: 60–62).

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