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VERBS AND CONCEPTS - AN ESSAY IN APPLIED LEXICOLOGY

1. AIMS OF A BILINGUAL LINGUISTIC ANALYSIS

The basic goal of bilingual lexicography is, to use L. Zgusta's wording: "to coordinate with the lexical units of one language those lexical units of another language which are equivalent in their lexical meaning" [Z g u s t a 1971: 294]. The basic concept in this quotation is the concept of *equivalence*. In order to find out whether and, if so, to what extent senses of lexical items in different languages overlap, lexicographers must be familiar with or else themselves carry out the investigation concerning a detailed lexicological comparison of the languages in question.

2. PROBLEMS IN THE ANALYSIS OF VERBAL CONCEPTS

It has been frequently observed that in the elicitation of lexical senses of verbs, less encyclopaedic knowledge is needed than in the case of nominal concepts. Those verbal concepts that do require some encyclopaedic background usually refer to acts, actions or activities in restricted domains of science and technology. A question that should be asked in such a context then concerns the extent to which the technical jargon and other specific types of vocabulary are to be accounted for in a non-specialized dictionary. S c h e l e r's [1977: 139] diagrammatic representation of English Vocabulary (Fig. 1) shows a number of registers in English, each with hazy boundaries, and a very small core area, common to all the styles.

In my opinion, a non-specialized dictionary should cover the stock of common core vocabulary, literary (formal) and colloquial

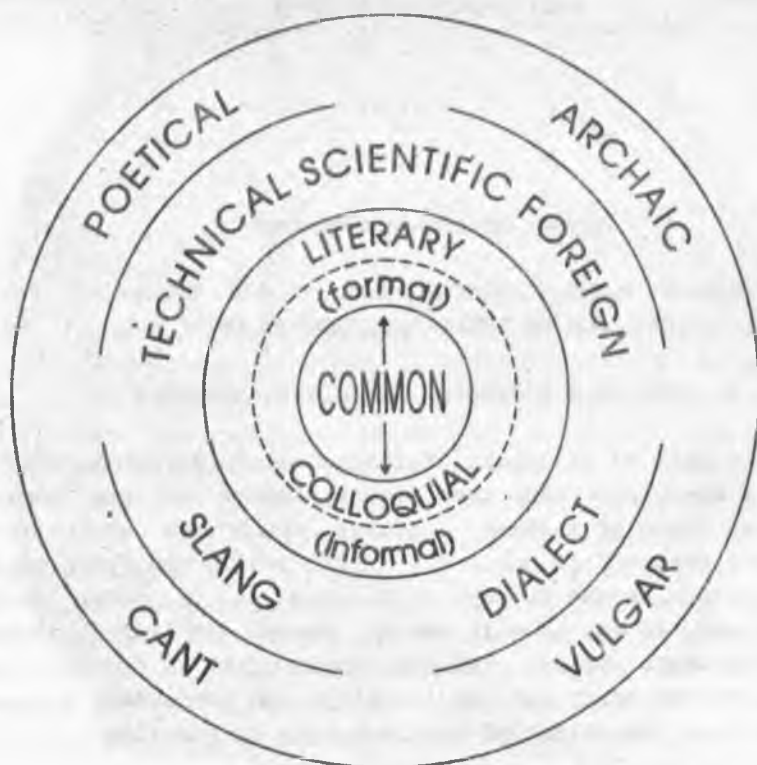


Fig. 1. Scheler's representation of English vocabulary

(informal) parts, and also this part of the technical and scientific lexicon which is absorbed by the standard variety as well as those foreign, slang, and dialect forms which are familiar and used by the majority of speakers. In any case, however, the final decision and responsibility rests with the lexicographer who should base his/her decisions on available frequency lists, lexicological analyses, etc, or else start the whole lexicographic project with a solid lexical research.

A notorious problem emerging from cross-linguistic comparisons of concepts is the lack of a one-to-one correspondence in the semantic content of lexical items in different languages. This actual unequivalence can be manifested in two forms.

2.1. ANALYTIC EQUIVALENCE

The first case takes place when similar concepts exist in different languages but only one of the languages lexicalized the con-

cept, while the other has at the disposal of its users exclusively an analytic version of the conceptual sense e.g.:

- | | |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(1) English: strut</p> <p>(etymol. of <i>struthious</i>
"strusi" (<i>ostrich-like</i>))</p> | <p>Polish: <i>dumnie stąpać,</i>
<i>chodzić wyniośle</i>
(<i>jak paw</i>)
"walk in a stiff,
self-satisfied way
(as a peacock)"</p> |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|

The problem with these analytic versions and analytic definitions of lexical items in general is that they presuppose identical semantic representations for a lexicalized form and for its corresponding analytic version. The models of meanings which accept the above as one of their assumptions are quite frequent in linguistics, especially in these linguistic theories which are affiliated to formal semantics [e.g. D o w t y 1981].

On the other hand, this is exactly what monolingual dictionaries normally do! They describe senses of words using other words. That this way of explicating lexical senses is very difficult (if not impossible) to perform, has been convincingly shown by a number of linguists. Jerry F o d o r [1981], for instance, discusses a dictionary definition of the verb *paint* (the example quoted after A i t c h i s o n 1987: 12):

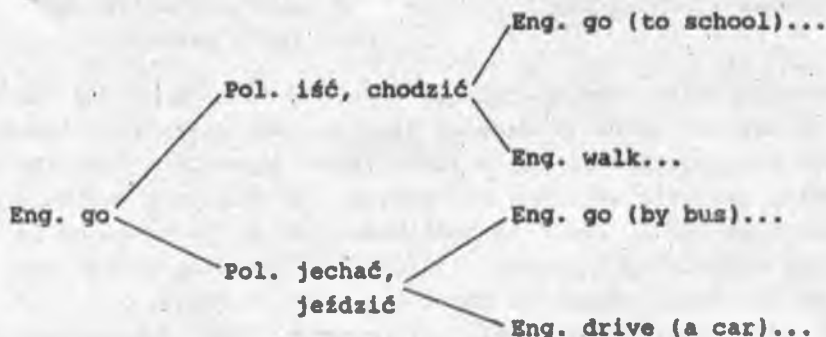
- (2) (COD) *paint* "to cover surface of object with paint"

However, Fodor says: "if you knock over the paint bucket, thereby covering the surface of the floor with paint, you have not thereby painted the floor" [F o d o r 1981: 287]. The definition, then, should be supplemented, perhaps, by the element of intentionality on the part of the -agent. Would that be sufficient? Fodor answers this question negatively: "For consider that when Michelangelo dipped his brush into Cerulian Blue, he thereby covered the surface of his brush with paint and did so with the primary intention that his brush should be covered with paint in consequence of his having so dipped it. But Michelangelo was not, for all that, painting his paintbrush" (emphasis mine). The compiler (and author) of a dictionary then, must be especially careful to incorporate in his/her analytic definitions of a monolingual dictionary as well as a bilingual one all and only relevant properties of the lexical sense described.

2.2. DISPLACEMENT OF SENSES

The other manifestation of the lack of exact equivalents is what I call [Lewandowska-Tomaszczyk 1985] a *displacement of senses*. Such a semantic displacement can be accounted for discursively and diachronically (*ibid.*), and it is also observed as a cross-linguistic phenomenon, e.g.:

(3)



The issue which needs illuminating is how verbal concepts, basing less on artifactual and more on natural, psychophysical knowledge, can still have this culture-bound displacement of senses. A following answer can be suggested: verbal concepts presuppose an entire scene or scenario with one or more participants. They involve different circumstances and they are differently evaluated by different communities. Each verbal concept expresses what T e s n i è r é so aptly called "un petit drame" [1969: 102]. Members of different communities may acquire an idiosyncratic optics while looking at what is "objectively" one and the same scene. They tend to foreground different aspects of the "same, objective reality". To uncover these these different perspectives one may resort to diachronic analysis and etymological roots of the lexical items, e.g.:

(4)

Eng. nibble Pol. skubać, kąsać, ogryzać

Eng. nibble 'eat slowly and/or gently
by taking small bites'← Low Dutch/Low German *nibbeln* 'gnaw'← PIE * *ken* 'repetitive, small gestures'

(pinching, closing the eyes, nodding)

Pol. *skubać* (of animals) ← Slavic 'pick up,
pinch'

Lithuanian 'špieszyc się' (hurry up), *skubrus*
'zwinny' (nimble, agile)

jeść małymi kęsami { *kęs* } ← 'bite' (bite, sting)
'eat with small bites' { *kąsać* }
ogryzać ← gryźć 'bite, gnaw, prick,
sting' + o-/ob- 'around, not to the
core'

The three possible Polish equivalents give each a slightly different perspective of what can be considered the same scene and they foreground different aspects of the action: *skubać* - delicate, small bites (frequently of the animals eating grass), the element of hurry-absent in the English equivalent, *kąsać* - an associative element of pain and danger, *ogryzać* - (mainly - *kość z mięsa* OR *mięso z kości* - two perspectives possible, implies the presence of an inedible part). The implied sense of all three cases in Polish covers a certain superficiality or incompleteness of the action, an opposite to "eating the whole object up". This element is present also in the following possible use of the English *nibble*:

(5) He nibbled my ear lobe playfully.

Not only do Polish and English verbs provide different optics, parts of their sense seem even contradictory: the rate of movements is high and fast in Polish, while low and slow in the English *nibble*. This is very well represented by non-equivalent syntactic patterns in which these two appear. While all the above mentioned verbs can conform to a transitive pattern (i.e. they take an Object), it is only the English *nibble* which can be used also with a prepositional phrase: *nibble at the meal, food, etc.* Taking this aspect into consideration, a set of other possible equivalents in Polish can be given, such as *dziobać (posiłek)*, lit. 'peck a meal' or *guzdrać się przy (posiłku)* 'dawdle', the latter one opening an entirely different conceptual field than that of eating.

Having in mind possible overlaps between different conceptual fields, another difference in Polish and English verbs should be discussed. It refers to metaphorical extensions of these items which are distinct not only in the two languages but, furthermore, each single verb with its unique conceptual representation allows a variety of different figurative extensions e.g.:

- (6) Pol. *gryźć się czymś* ('gnaw', 'bite') 'to worry
with something'
rozgryźć problem ('gnaw' + 'into two')
'to solve a problem'
(both the uses imply a hard, often unpleasant,
object of the action))
akubnąć trochę ('pick up') 'to get some
wiedzy (little) knowledge'
(the implication of superficiality is evident in
the above example)

2.3. CONCEPTUAL "ONE-TO-ZERO" CORRESPONDENCE

It is sometimes the case with different cultures that for a concept developed and labelled in one community there has been no equivalent concept developed in another one. It happens when, for example, no unique material extralinguistic referent of a given word exists in one of the cultures e.g.: Pol. *włoszczyzna* 'soup vegetables: carrots, parsley root, celery root, leek, cabbage', *tym.* Italian stuff. It can also happen when, say, the institutions existing in one community are organized or act in a different way than those in another one e.g. English *public schools* - Pol. *szkoły prywatne* lub *szkoły społeczne*.

One encounters similar problems with verbs and some nominalized verbal concepts. In the conceptual field of emotions, for example, the English concept of *annoyance* has no conceptual counterpart in Polish. To capture the sense of the English *annoy* then, we must resort to emotions more familiar to us such as *anger*, *irritation*, *sadness*, and possibly *fear*, each of which has a more direct equivalent in Polish than *annoy*. Thus the Pol. *złościć*, *irytacja*, *smutek*, *strach* plus the combination of presuppositional information concerning a cause or reason for annoyance as well as the implied or inferential knowledge connected with a behaviour stereotype of an annoyed person, all this adds to the sense of the Eng. *annoy*.

The problem with the analysis of lexical meanings is to find out an adequate model of language that would account for them. Another problem, not necessarily identical with the first one, is to find out an adequate way of describing lexical senses. The latter issue is especially acute when one has in mind the application of the analysis to some tasks. One such task is the lexicographic practice.

3. MODELLING OF VERBAL SENSES

3.1. COMPONENTIAL ANALYSIS OF SENSES

The method of componential analysis of senses developed out of the concepts of the Prague School phonologists and American anthropological research [L o u n d's b u r y 1956 and G o o d e n o u g h 1956]. With the thesis of the universality of basic (primitive) semantic components, this method reached its momentum in the TG model where it included the idea of selection restrictions [K a t z and P o s t a l 1964] and transfer features [W e i n r e i c h 1966].

Two most important assumptions of this method are:

1. The thesis of meanings as contex-free bundles of features organized hierarchically by means of binary oppositions and
2. The thesis of the decomposition of elements into sets of universal semantic primes.

The inadequacy of such an approach to meaning has been pointed out by a number of linguists with reference to the following more specific issues:

- 1) binary oppositions do not satisfactorily work in semantics,
- 2) freedom from context restrictions is questionable,
- 3) the universality of semantic primitives is arguable,
- 4) decomposition into smaller units does not account for the holistic sense of a unit.

3.2. PROTOTYPE APPROACH TO VERBAL SENSES

While Eleanor R o s c h [1975] and other cognitive psychologists have convincingly shown that the structure of nominal concepts and prepositional senses [B r u g m a n 1981] is built around their prototype member and covers a set of more and more peripheral category exemplars, such a semantic organization was not so evident in the class of verbal concepts.

P u l m a n, in this exhaustive discussion of verbal senses [1983] argued for the presence of the prototype effects in the category of verbal concepts as well. While, however, nominal concepts seem to map onto hierarchical taxonomies such as the unique beginner, life form, specific and varietal forms with each level having one main dimension as the classificatory criteria, Pulman shows that such a structure for verbs seems more problematic. Even if

unique beginners can be assumed for verbs (e.g. *do, be, cause* - cf. J a c k e n d o f f 1972), the senses of many verbs will have to exploit more than one element (of. *kill* -> *cause + become + not alive* after M c C a w l e y 1971), verbs, as a rule, display a more complex structure in this respect and they can be seen from the perspective of different dimensions according to which their hyponyms differ from the superordinate categories.

(7)	after	P u l m a n [1983: 112]	Dimension:
		stare _____	intensity
		whisper _____	manner
		brand, grate _____	instrument
		execute _____	reason
		decoy _____	purpose
		mislead vs. cheat _____	volition
		kindle _____	causation

Verbs such as *execute*, in turn, also form a category built around a prototypical exemplar and peripheries. In such a case thus, judgments as Pulman reports point to murder as a better example of killing than, say, committing suicide is. All instances of killing such as: assassinate, murder, massacre, commit suicide, execute, sacrifice etc. will be dominated by the category *kill*. Pulman's results are corroborated by C o l e m a n and K a y [1980] with their analysis of the concept of lying. Contemporary to Pulman, M. S n e l l - H o r n b y in her analysis of descriptive verbs [1983] posits the core act-nucleus and a number of modifications reflecting different cognitive dimensions.

3.3. IMAGE - SCHEMATA

A number of linguists using the theory of prototypes as a methodological instrument assume a non-propositional basis for linguistic meanings. Some others [e.g. W i e r z b i c k a 1985] do not find it conflicting to accept a theory of categorization based on the prototype - periphery distinction and at the same time, assume a level of *lingua mentalis* for semantic structures, built out of universal primitives, treated as blocks out of which all more complex structures are composed.

The majority of cognitive linguists, however, especially those with the space grammar [L a n g a c k e r 1983] provenience do not

use natural language of the propositional type to account for linguistic senses. The definition of one verbal sense in terms of another inevitably leads to an infinite regress or makes it necessary to accept a 'homonculus' explanation of natural language semantics. Neither of these options is an attractive choice. Therefore, a form of a non-propositional, cognitive image - schematic basis is postulated to account for both linguistic as well as all other, non - linguistic, faculties in the human mind. R. Thom's theory of catastrophes [Thom 1971] or Langacker's topological structures assume pre-conceptual (probably inborn, genetically pre-programmed) schematic representations in their models which underlie senses of all our linguistic repertoire.

4. COGNITIVE GRAMMAR AND LEXICOGRAPHY

I have tried to show above that there are reasons to assume that the ultimate basis of semantic structures is topological (spatial) rather than propositional. However, this is not what an average dictionary user would expect to find in a dictionary even if a conceptual analysis were to be included in it. Thus, some finding that evolve from recent theorizing in semantic theory cannot be directly applied to lexicography-image schemata are represented in terms of conventioned, not necessarily self explanatory symbolic schemas. I can see ways of utilizing them in the function of intermediaries between languages in bilingual lexicography and as universal points of conceptual anchoring in monolingual dictionary practice. This fact, however, takes off from lexicographers the burden of looking for the universal semantic primes or unique beginners in their analytic definitions. The latter, of course, should aim at non-circularity, but in common-sensical rather than strictly theoretical sense.

5. BIT - BILINGUAL THESAURUS (ENGLISH-POLISH THESAURUS OF VERBAL CONCEPTS)

Although not all principles of cognitive linguistics can be directly applicable in a lexicographic description of verbal concepts, some findings stemming from recent cognitive analyses seem worth considering. I have in mind those procedures which help the lexicographers illuminate a conceptual structure of verbs. The idea of default properties, some of which are more central than others

replaced the system of necessary and sufficient conditions. In the examples given by Fillmore [1982] the verb *climb* contains two elements, which can be represented as the sense-element *clamber* and the other one - *ascend*. Neither of them is necessary nor sufficient (*He was climbing down the pole. A snail was climbing along the wire. A funicular was climbing up the hill*). In other examples such as, say, *crunch*, the sound component is more essential than any other property, none of them being necessary (*A biscuit, snow, etc. crunch*). Instead, then, of a number of obligatory: necessary and sufficient components in verbal senses, it is legitimate to distinguish between necessary on the one hand and essential and typical conditions on the other [cf. Jackendoff 1983, Lewandowska-Tomaszczyk 1990].

Such a cognitive analysis of verbal senses helps also to account for the relationship between the action itself and its participants. Moreover it illuminates the links between the participants themselves e.g. *Eng. cut* has three obligatory participants: Agent, Patient and Instrument, not all of which, however, have to be overtly expressed in a sentence (*John was cutting the wood.*). Furthermore, a prototypical domain for *cut* can function as the conceptualization ground for other cognitive domains, thus allowing for a number of metaphorical extensions of *cut* (*His words cut the silence*).

5.1. DICTIONARIES AND THESAURI OF VERBAL CONCEPTS

Apart from publications dealing with the semantic analysis of verbs, as well as numerous papers concentrating on different classes of verbs or even on single verbs [e.g. Atkins et al. 1988] there appear more extensive lexicographic works taking verbs as their main point of elucidation and description. One such work, published recently is a thesaurus-dictionary, named *The Wordtree* by Henry G. Burger [1984], cf. Lewandowska-Tomaszczyk [1992] for review.

The Wordtree is advertised by its publishers as "the word system for solving physical and social problems branch by branch". It is in fact an attempt at defining the lexicon of processes expressed by English transitive verbs in terms of only two sub-parts, two constituent verbs, one - indicating the cause, the other - its effect. *The Wordtree*, then, is based on the assumption that each of the verbs is definable in terms of a hierarchical analysis of this verb into two sub-componential verbs, one - more general, and the

other - a specific one. The theoretical background of *The Wordtree* is simple, not to say, simplistic: each verb is assumed to be reducible to two componential concepts e.g.:

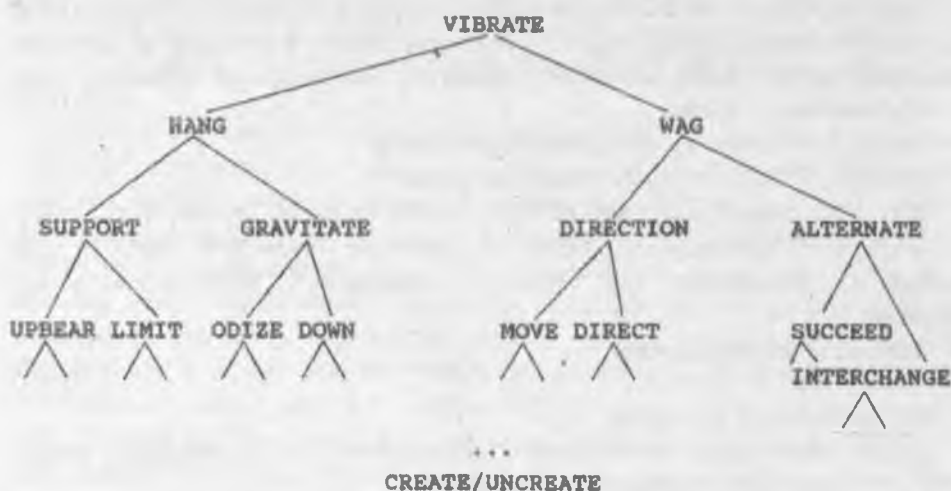


Fig. 2. Decompositional analysis of the verb VIBRATE [Burger 1984]

Burger starts with 42 "actemes" considered as conceptual primaries (e.g. *agree, change, equal, fit, relate, up, down, in, out, etc.*), each of which can be reduced to two ultimate primitives CREATE/UNCREATE. The primaries form the building blocks of more complex second level concepts, which, in turn, generate the third level units, etc. In this way, the classification scheme as devised by Burger is meant to avoid the circularity - a threat of so many lexicographic definitions. However, his strict adherence to a binary method seems to impoverish the conceptual analysis of the meaning of an item by actual underrepresenting it. What is worse, in many cases, such a methodology appears to distort lexical senses. Some analytical steps look fairly arbitrary and, as Burger admits himself [1984: 116], his "binary selections for the higher numerations are easier to justify than for the lower". If, as an example, we take a verb such as ASSASSINATE, which is assumed to be decomposeable into SURPRISE + MURDER, we notice that what is missing here is the important social - cultural conditioning of the act, which could uncover its political motives directed towards an important personality.

For the reasons mentioned above, in a lexicographic project of a *Bilingual Thesaurus - BIT* I have been developing for some time at the

Institute of English Studies, University of Łódź, I try to avoid dangers resulting from the lexicographic application of the rigid reductionistic analysis of verbs.

Łódź *English-Polish and Polish-English Thesaurus of Verbal Concepts* (BIT) has the following format and a proposed entry structure to provide its users with a more accurate grasp of the sense of a verbal item in a contextual frame:

Part 1 - Taxonomy of Conceptual Fields

Part 2 - Alphabetical Index of Verbs

Part 3 - Index of types of Properties covered in the Dictionary

Part 4 - Alphabetical Index of Semantic Properties used in the

Conceptual Analysis of verbal concepts. Entry structures:
headword n

A - Phonetic transcription

B - Semantics

1. Conceptual analysis

a) superordinate category (elaborated as a separate headword or treated as a prime)

b) salient property

c) participants of an act

d) relations

e) circumstantials

f) speaker's evaluation

g) subordinate categories (elaborated as separate headwords)

h) synonyms (elaborated as separate headwords)

2. Polish definition

3. Polish equivalents

4. Antonyms (elaborated as separate headwords according to a number of dimensions)

C - Syntax - simplified verb patterns

D - English examples with Polish equivalents

E - Special remarks

1. Usage (style, register, etc.)

2. Remarks counteracting Polish interference, based on contrastive analysis

F - Conceptual extension of headwords n

headwords n'

headwords n''

(elaborated as separate headwords where necessary)

...

Łódź *English-Polish and Polish-English Dictionary of Verbal Concepts* (DoV in the *Bilingual Thesaurus* (BIT) Project.

The English-Polish part of this dictionary/thesaurus, which is being compiled at present (consult other contributions in this volume), is intended as:

- 1) a decoding dictionary for Polish learners of English,
- 2) an encoding dictionary for English learners of Polish,
- 3) a generative-encoding dictionary for advanced students of English.

Task 3 seems the most challenging one. It is meant for those English speakers who know the sense of what they want to express and are looking for its formal expression. Since the list of properties usable for the analysis or generation of senses can be provided in English and Polish, the dictionary user may choose a desired combination of conceptual properties to get to the closest conceptual form. To prove operational, such applications of BIT require the storage and retrieval of the data in computerized form. Therefore we have tested a number of different storage and retrieval systems to find out which of them possesses the best design for the computerized management of such structured lexical data bases as BIT. After a series of tests I finally decided to have a computer program written especially for this purpose and we are now in the process of testing it. We hope to be able to say more about it in the next volume devoted to our project.

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CZASOWNIKI I POJĘCIA - ROZWAŻANIA NA TEMAT
LEKSYKOLOGII STOSOWANEJ

Celem artykułu jest przedyskutowanie różnych sposobów opisu pojęć czasownikowych w językoznawstwie dla celu ich użycia w praktyce leksykograficznej. Skoncentrowano się szczególnie na metodzie dekompozycji komponentyjnej oraz podejściach kognitywnych wskazując na ich zalety, jak i mankamenty. Omówiony został projekt leksykograficzny tezaurusu bilingwalnego BIT prowadzony przez autorkę w Instytucie Anglistyki UŁ, jego część *Łódź English-Polish and Polish-English Dictionary of Verbal Concepts (DoV)*, jego zastosowania oraz możliwości wdrożenia komputerowego.