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WORD MEANING AND LEXICAL PRAGMATICS*

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In spite of their differences, Two-level Conceptual Semantics, Generative Lexicon Theory and Relevance Theory also have similarities with respect to treatment of the relation of word meanings and contexts. Therefore, the three theories can be considered as complementing each other in analysing word meanings in utterances. In the present paper I will outline a conception of lexical pragmatics which critically amalgamates the views of these theories and has more explanatory power than each theory does separately. Such a lexical pragmatic conception accepts lexical-semantic representations which can be radically underspecified and allow for other methods of meaning description than componential analysis. As words have underspecified meaning representations, they reach their full meanings in corresponding contexts (immediate or extended) through considerable pragmatic inference. The Cognitive Principle of Relevance regulates the way in which the utterance meaning is construed.

1. Introduction

Relations between word meanings and concepts seem to be a timeless problem of lexical semantics. According to holistic cognitive linguistics, word meanings are connected to our world knowledge so tightly that it does not make any sense to talk about linguistic(ally encoded) meaning (cf. Kiefer 1995). At the same time "the concept it [i.e., a word] is used to convey in a given utterance has to be contextually worked out" (Sperber–Wilson 1998, 185). In Relevance Theory initiated by Sperber and Wilson (1995) a hearer interprets an utterance after decoding it by means of inferences in accordance with the principle of communicative relevance. The role of contexts in the construction of full-fledged utterance meanings is also acknowledged by Generative Lexicon Theory (Pustejovsky 1995; 1998) as well as by Two-level Conceptual Semantics (Bierwisch 1979; 1983b; 1996). Although the latter theories take as their starting-point the assumption that in the lexicon words generally encode concepts which are not fully determined, this idea is not unknown for

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Relevance Theory. Sperber and Wilson (1998, 185) indicate that words of this type are rather common. Furthermore, in contrast to Generative Lexicon Theory, Two-level Conceptual Semantics distinguishes between linguistic and conceptual meanings. While it considers linguistic meaning to be underspecified, it derives the conceptual meaning from the interaction of linguistic meaning with our world knowledge induced by contexts. However, in spite of these differences, the three theories — because of their similarities with respect to the treatment of the relation of word meanings and contexts — can be considered as complementing each other in analysing word meanings. Moreover, using these three conceptions together seems to be a promising venture since, in the light of the new discipline of lexical pragmatics (Németh T.–Bibok 2001a), research into word meanings should pay special attention to the necessary interaction of lexicon and contexts.

The present paper aims at setting forth in detail such **a lexical pragmatic conception of word meaning** that relies upon as its starting-point the types of representation familiar to Two-level Conceptual Semantics, Generative Lexicon Theory and Relevance Theory (henceforth: TCS, GLT and RT, respectively) and amalgamates the interpretation mechanisms originating from these theories. This is the best way that their advantages can be exploited in the field of mutual effects between lexical meanings and contexts.

Lexical pragmatics, proposed in this study, takes for granted the following five assumptions.

First, it allows for the underspecified representation of lexical meanings.

Second, it conceives of contexts in a broad sense ranging from the purely linguistic contexts (e.g., government structures) to verbal and nonverbal ones containing world knowledge.

Third, unlike in Grice (1975) and in neo-Gricean pragmatics (e.g., Levinson 2000), inferential processes are considered necessary not only to establish (conversational) implicatures via the Co-operative Principle and its maxims. Constructing propositions expressed by utterances also requires the execution of some inferences, because — as post-Gricean RT propagates — the linguistically encoded information is not sufficient for that. Thus, the distinction between semantics and pragmatics is not correlated with the distinction of propositional meaning and implicatures. Rather the research into semantic and pragmatic meanings can be separated alongside with decoding and inference (cf. Carston 2002, 95).

Fourth, lexical pragmatics follows RT in this respect with a difference. Relevance-theoretic pragmatics does not postulate a pragmatic competence, but decoding and inference are two types of cognitive performance, i.e., of real-time, on-line processing (for more on this, see Carston 2002, 10–1). At the same time, interpretation mechanisms of TCS and generative devices of GLT are proposed as rules of theories about linguistic competence. However, I conceive of inferential, interpretative and generative devices in a way neutral in regard to the distinction of competence and performance. To refer to these meaning derivation tools in such a way, I will speak about constructing, or construing, word and utterance meanings which takes place in contexts and has underspecified meaning representations as its starting-point. In doing so, I am encouraged by the parallel architecture of grammar (Jackendoff 2002), according to which grammar contains several sets of formation rules (the "generative" components: phonology, syntax and semantics), each determining its own characteristic type of structure, and the structures are linked by interface components. In comparison with the syntax-centred framework, parallel architecture permits a much closer relation between competence and performance, because it lends itself quite naturally to addressing processing issues (for details see Jackendoff 2002, ch. 7).

Fifth, the expression *constructing, or construing, word and utterance meanings* is intended as a neutral phrase in another respect, namely in that of distinction of interpretation and generation. One of the motivations for creating the parallel architecture of grammar was the specificity of semantic combinatorial rules, which TCS also admitted and even definitely stressed independently of the fact that Bierwisch originally thought of his semantics as an addition to a syntax-centred framework. Furthermore, if one also takes into account that—as has just been seen—parallel architecture makes it possible to connect competence and performance, one should not feel uneasy about real-time processes, whether utterance understanding or utterance production. (RT attempts to capture both sides of communication but it seems to prefer to deal with comprehension processes.)[1]

[1] Keeping in mind the clarifications concerning distinctions of competence and performance as well as interpretation and generation, I will not terminologically rephrase the ideas of TCS, GLT and RT into the above mentioned neutral expression. I will only use the new terminology with caution in the present article when this seems to be unavoidable.

The structure of the present paper mirrors the train of thought according to which — in developing lexical pragmatics — one may exploit TCS and GLT (initiated originally not as pragmatic theories by Bierwisch and Pustejovsky), as well as RT playing a significant role in current pragmatics. That is why sections **2**–**4** investigate these theories one by one, returning again and again to questions of lexical representation and constructing word and utterance meanings in contexts. In progression from section **2** to section **4**, I will show how TCS, GLT and RT complement each other and can be assembled together in the framework of lexical pragmatics, which has more explanative power than each theory does by itself. Each section deals with the analyses and methods proposed by the theories only to the necessary degree, and it emphasizes desirable modifications and changes for the sake of more precise and comprehensive solutions.[2] The paper ends with conclusions (section **5**).

2. TCS and lexical pragmatics

During the elaboration of lexical pragmatics one has to take into account from TCS the methods of representation of lexically encoded but underspecified meanings and the operations of contextual interpretation. Word meanings in the lexicon are often not fully specified. The underspecified meaning is concretized by our world knowledge, activated in neutral, i.e., non-metaphorical contexts. Thus, one gets literal meanings of a word from which metaphorical meanings can emerge in non-neutral contexts (Bierwisch 1979, 141–3). Before I turn to the mechanisms of contextual interpretation in TCS, two remarks are in order. First, as has already been indicated in section **1**, TCS distinguishes between knowledge of language and world knowledge and, consequently, between two levels of meaning representation: that of linguistic (semantic) meaning and that of conceptual meaning. The context-free, underdetermined meaning (also called core meaning) belongs to the former, the literal and metaphorical meanings (both involving world knowledge, i.e., being context-bound) to the latter. Second, the metaphorical meaning is hardly studied in TCS. Therefore, the conceptual interpretation in TCS actually amounts to the

[2] As my several earlier papers were written in the framework of TCS, the structure of the section about it is somewhat different from that of sections **3** and **4**.

operations that result in literal meanings occurring in neutral contexts, i.e., conceptual shift, differentiation and selection.[3]

The derivation of a literal meaning of a word can be done by conceptual shift, when the underspecified lexical meaning gets fully determined senses in various conceptual fields, or by conceptual differentiation, when the core meaning is concretized in somewhat different ways but in one and the same conceptual domain. In utterances the selection and combination of literal meanings produced by conceptual shift and differentiation is regulated by the third operation of contextual interpretation mentioned above, namely by conceptual selection. Consider (1).

(1) (a) 1975-ben Péter elment az iskolából.
1975.ine[4] Péter.nom left.indef.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.indef.3sg the school.ela
'At ten o'clock in the morning Péter left the school.'

In the context of the time adverbial in (1a), the noun *iskola* 'school' most likely refers to an institution, and in (1b) it can be typically interpreted as a building. These two different meanings of *iskola* 'school' derive from an underspecified meaning given in (2).

(2) (a) 'x has the goal to provide for teaching/learning processes',
(b) $\lambda x[x \,\text{GOAL}\, w]$, where w = TEACHING/LEARNING PROCESSES.

(2a) and (2b) are equivalent to each other, but the latter formalizes the underspecified meaning of *iskola* 'school' in the language of lambda-calculus (for details see Bierwisch 1983b; 1996). As a matter of fact, it should be clear that one has to introduce a variable of level into the description of the core meaning of *iskola* 'school' and, accordingly, to specify it to separate the noun *iskola* 'school' from *egyetem* 'university', *főiskola* 'college' etc. However, (2) is sufficient for the present purposes.

[3] I will turn to the issue of metaphors in section **4**.

[4] The abbreviations used in the glosses throughout this paper are the following: 3sg = third person singular, abl = ablative, acc = accusative, all = allative, def = definite conjugation, del = delative, ela = elative, ill = illative, ine = inessive, indef = indefinite conjugation, ins = instrumental, nom = nominative, poss = possessive inflexion (of third person singular), sub = sublative, sup = superessive, tem = temporal.

The literal meanings of *iskola* 'school' in (1a) and (1b) can be derived through conceptual shift by means of the concretizing variable x as an institution and as a building, respectively.

It is obvious that this way of the treatment of polysemy is distinct from the solution of classical lexicology and lexicography, according to which the secondary meaning is derived from a fully specified primary meaning on the basis of a metonymical relation between them. Before enumerating reasons arguing in favour of the new conception of polysemy, a remark is necessary. The meanings 'institution' and 'building' of various *school*-type nouns[5] are shown differently in the dictionaries of Hungarian. In Bárczi–Országh (1959–1962) these meanings figure as a separate meaning and its variant in the entry *iskola* 'school', two separate meanings in the entry *egyetem* 'university', they are combined into one meaning in the entry *kórház* 'hospital', and not dissociated at all in the entry *főiskola* 'college'. In Pusztai (2003) one finds a separate meaning and its variant in the entries *iskola* 'school' and *egyetem* 'university' but the 'building' meaning is not indicated in the entries *főiskola* 'college' and *kórház* 'hospital'. Even if we disregard such lexicographic inconsistencies, the explanation of polysemy of *school*-type nouns via conceptual shift is more adequate for the following reasons (cf. Bierwisch 1983b):

(a) neither the 'institution' meaning nor the 'building' meaning seems to be "more literal" than the other,

(b) the problem of the selection of a primary meaning, which could often be solved only in an arbitrary way, does not emerge,[6]

(c) the failure of alternation of 'institution' and 'building' systematically explains the specificity of the nouns *kormány* 'government' and

[5] These are the nouns which have a similar but not the same set of meanings as the noun *iskola* 'school' does. They are the following:

középiskola 'secondary school', *egyetem* 'university', *főiskola* 'college', *intézet* 'institute', *akadémia* 'academy', *múzeum* 'museum', *színház* 'theatre', *opera* 'opera house', *mozi* 'cinema', *parlament* 'parliament', *kormány* 'government', *palota* 'palace', *minisztérium* 'ministry', *bank* 'bank', *tőzsde* 'stock exchange', *bíróság* 'court of justice', *kórház* 'hospital', *élelmiszer-áruház* 'supermarket' etc.

[6] Taylor (1994) and Kiefer (2000, 129–38)—the latter in the framework of TCS—take as a starting-point the metonymical relationship between 'institution' and 'building' meanings of such a noun as *iskola* 'school'. I will return to their standpoint after discussing the forms of lexical-semantic representations in GLT (see **3.4**).

palota 'palace', i.e., the alternation in question is blocked if either conceptual unit is lexicalized in a lexical entry.

It can be seen from (c) that there is not a sharp distinction between the two types of meaning, i.e., linguistic and conceptual meanings. The reference to institution or building can either depend on the context (cf. *iskola* 'school') or be fixed on the lexical-semantic level (cf. *kormány* 'government' or *palota* 'palace').

However, in my earlier work (Bibok 1999; 2000) I proposed an important modification of Bierwisch's conceptual shift. The literal meanings, directly and indirectly derived from the underspecified meaning, have to be distinguished. The first type of literal meanings is called primary, the second one non-primary. The distinction at stake is unavoidable because—in contrast to Bierwisch's original proposal—not all the literal meanings of nouns *iskola* 'school', *könyv* 'book' etc. can be immediately derived from underspecified cores. To put it the other way around, stating that all the resulting meanings are literal does not mean that they are unstructured. In fact, they might have a complex internal structure. Let us consider the example *iskola* 'school' once more. Its primary literal meanings ('institution' and 'building') can be directly derived from the underspecified meaning. Nonetheless, its non-primary literal meanings cannot derive from such a core, 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.

Like the noun *iskola* 'school', the verb *elmegy* 'leave' in (1) can also be interpreted in two ways: as a change in affiliation in (1a) and as a change of place in (1b). The corresponding literal meanings of this verb are derived from an underspecified meaning by conceptual differentiation. The representation of the latter meaning contains the abstract compo-

nent MOVE, which indicates no change in physical or social space, as well as a condition concerning MOVE (formally speaking: a predicate variable bound by an existential quantifier). This variable is concretized in corresponding contexts as a change of physical or social place.[7]

As for conceptual differentiation in general, it has to be stressed that I also modified Bierwisch's original version of it in my earlier papers (Bibok 1998; 2000; 2002). I used conceptual differentiation in connection with verbs such as *hív* 'call', *küld* 'send', *vág* 'cut' etc. combining it with the notions of lexical stereotype and prototype. The events which can be expressed by single lexemes (and not by some periphrastic causative constructions) are restricted in terms of the lexical stereotypes belonging to conceptual representations of word meanings. Lexical stereotypes prescribe the corresponding—perhaps culture-dependent—manner (if any) and goal (if any) of the events (Gergely–Bever 1986). While lexical stereotypes of lexemes constrain their referential potential, they do not prevent these lexemes from conceptually differentiating in context. The literal meanings taking shape this way can refer not only to typical but also to non-typical situations.[8] These constituents of event representations can be illustrated with an analysis of the verb *cut*. Its lexical stereotype includes the standard ways in which one can cut something but excludes such non-stereotypical methods as the following. If John fastens a knife to

[7] Abstract meaning components similar to MOVE are assumed by Jackendoff (1990, 25–7), 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 such 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. 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 (i)–(v) taken from Bierwisch (1983a, 68):

(i) John lost his money, as he was not aware of the hole in his pocket.
(ii) John lost his money by speculating at the stock market.
(iii) John lost his friend in the overcrowded subway station.
(iv) John lost his friend in a tragic car accident.
(v) John lost his friend, as he could never suppress bad jokes about him.

As for MOVE, below (**3.3**) it will appear in a more generalized form in another respect: it can mean a change of not only physical place but also of physical position (for this, see Wierzbicka 1996, 82–3).

[8] For prototype semantics dealing with the typicality of category members, see Kiefer (1995).

the surface of a table then puts bread on the edge of the knife and a heavy stone on the bread causing it to be divided into two parts, one can hardly call this event cutting. Instead one would express it with a periphrastic construction: *Doing this and this, John causes that...* So the stereotype of the lexeme *cut* does not allow the non-standard use of a typical cutting instrument. However, it does not exclude the conceptual differentiation of *cut* in contexts. Furthermore, these literal meanings can refer to typical and non-typical cutting events. In the latter case the agent who cuts something may use non-typical instruments in the following three ways, though such situations are not very likely to occur in reality:

(a) either in a way characteristic of the instrument used but uncustomary for the object which is cut (e.g., cutting bread into two with an axe (at one blow)),

(b) or in a way uncharacteristic of the instrument used but customary for the object which is cut (e.g., moving the edge of an axe on bread in a way we use a knife),[9]

(c) or in a way uncustomary for both the instrument used and the object which is cut but as a result of a causative event, i.e., a not-whole physical object is coming into being like in case of the typical cutting and in cases (a) and (b) of the non-typical cutting (e.g., cutting a bar of soap with a thread).

Before turning to the third mechanism of contextual interpretation, i.e., conceptual selection, operating on utterance (1), it is reasonable to discuss, at least briefly, the problem of legitimation of distinction between conceptual shift and differentiation. Why should we assume two different interpretation mechanisms if in both cases a variable is specified to get literal meanings? Well, in case of *iskola* 'school', the variable x in (2) is specified, and in case of *elmegy* 'leave' a predicate variable is specified. However, these variables play different roles in lexical-semantic representations of the words in question (cf. Bierwisch 1983a). While in an utterance (in terms of logic) an argument is substituted for x bound by lambda-operator in (2), the predicate variable in the representation of *elmegy* 'leave' cannot be concretized by a constituent in an argument position, and therefore it is to be bound by an existential quantifier. That

[9] A flat shingle is not an instrument and, consequently, it is not inherently assigned any goals. Nonetheless, it can occasionally be used to cut something in a way we cut with a knife. This cutting event could also be included in type (b).

is why one has to assume two mechanisms, namely conceptual shift and differentiation, according to the types of interpretation.

After introducing conceptual shift and differentiation in some detail, we can simply show the way in which the parts of the utterance meaning are co-ordinated in order to form an acceptable interpretation. Let us turn to example (1) again. In the context of the time adverbial in (1a), *iskola* 'school' most likely refers to an institution, and, accordingly, the verb *elmegy* 'leave' is interpreted as a change in affiliation. In (1b), *iskola* 'school' typically refers to a building and the verb *elmegy* 'leave' is interpreted as a change of place. Thus, depending on time-adverbial phrases, the literal meanings of *iskola* and *elmegy* in (1a–b), respectively, are co-ordinated. To put it differently, in utterance (1) the combination of literal meanings of *iskola* 'school' and *elmegy* 'leave' produced by conceptual shift and differentiation is regulated by the third above-mentioned operation of contextual interpretation, namely conceptual selection.

3. GLT and lexical pragmatics

Considering the lexicon not to be a sense enumerative component of the theory of language, Pustejovsky (1995; 1998) proposes a model in which words have a richer form of representation than they traditionally do but can also be underspecified in some respects. Furthermore, words are put together into complex linguistic units by means of composition rules which are more flexible than the earlier ones. Although Pustejovsky (1995, 232–6) does not make a distinction between linguistic and world knowledge, it is clear from his conception that GLT can contribute to lexical pragmatics in such a way as TCS does. Namely, GLT also assumes lexically encoded but underspecified meanings and meaning construction devices for larger units. However, at a closer look they are specific representation forms and particular generative operations of GLT. That is the reason why in the next subsection I will briefly introduce them and try to find their similarities with TCS and ways in which GLT and TCS complement each other.

3.1. The lexical representation and generative operations in GLT

Let us begin with the characterization of lexical entries. First, they involve the following four levels of representation: argument structure,

event structure, qualia structure and lexical inheritance structure. The qualia structure is at the core of the generative properties of the lexicon. It consists of four generative factors capturing how humans understand objects and relations in the world and inspired ultimately by Aristotelian *aitia*:

(3) (a) FORMAL: the basic category that distinguishes an object within a larger domain,
(b) CONSTITUTIVE: the relation between an object and its constituent parts,
(c) TELIC: the object's purpose and function,
(d) AGENTIVE: factors involved in the object's origin or "coming into being".

Second, GLT treats polysemic words as complex types, i.e., their meanings are drawn into complex types in order to grasp relations between them. The structure assumed for each set of meanings is a Cartesian type product. The product $\tau_1 \cdot \tau_2$, or $\tau_1.\tau_2$, of types τ_1 and τ_2, each denoting sets, is the ordered pair $\langle t_1, t_2 \rangle$, where $t_1 \in \tau_1$, $t_2 \in \tau_2$.[10] Furthermore, the semantics of complex types involves the relation R between elements of τ_1 and τ_2.

Now let us take an example.

(4) (a) Mary doesn't believe the book.
(b) Peter put the book on the shelf.

The noun *book* denotes in two ways: in (4a) it refers to an information structure, and in (4b) to a physical object. One has to construct the corresponding complex type in order to treat these different meanings as a single type. If x equals information and y a physical object, then the complex (dot) type can be construed as $x.y$. The relation between the two meanings is that of "containment", i.e., *hold* (y, x), encoded as the FORMAL quale value. Considering all these details and also the purpose and origin of a book, the noun *book* and its Hungarian equivalent *könyv* have the representation (5), where e is an event variable:

[10] However, while in general the Cartesian product is not commutative, Pustejovsky's dot operator cannot be commutative at all (Pustejovsky 1998, 298).

(5)
$$\left[\begin{array}{l} \textbf{book/könyv} \\ \text{ARGSTR} = \left[\begin{array}{l} \text{ARG1} = x\text{: information} \\ \text{ARG2} = y\text{: phys\_obj} \end{array}\right] \\ \text{QUALIA} = \left[\begin{array}{l} \text{FORMAL} = \text{hold } (y, x) \\ \text{TELIC} = \text{read } (e, w, x.y) \\ \text{AGENT} = \text{write } (e', v, x.y) \end{array}\right] \end{array}\right]$$

We should realize that the complex type $x.y$ occurs in the positions of arguments of predicates *read* and *write.* This is necessary in order to express the property of these predicates which the verbs *believe* and *put* in (4) do not have. Namely, the arguments of *read* and *write* refer to objects which are both physical object and information structure. Thus, Pustejovsky rejects the earlier representation *book/könyv* in which arguments of *read* and *write* belong to the simple type x.[11]

If in (5) the complex type $x.y$ figures with the predicates *read* and *write,* this has the consequence that *book/könyv* has to have a third meaning in which the meanings 'physical object' and 'information structure' occur together. This complex meaning also appears in the case when there is no context which unambiguously indicates either 'physical object' or 'information structure', for instance, in (6):

(6) Mary likes the book.

The verb *like* itself does not require either of the above-mentioned meanings of *book.* Instead, one can think of "bookness" with respect to (6) and not of a specific aspect of the book.

In order that a single lexical representation of *book/könyv* indicate all of the three meanings, Pustejovsky introduces the notion of lexical conceptual paradigm (for short: lcp). It contains not only variables x and y, but also the complex type $x.y$:

(7) information.phys_obj_lcp = {information.phys_obj, information, phys_obj}

Thus, one gets the following representation of *book/könyv* if (7) is built into (5) (cf. Pustejovsky 1995, 101, 116, 256, note 3):

[11] Interestingly, the representation of *book* without the complex type is not rejected in one place of Pustejovsky's book (1995, 204).

(8)
$$\left[\begin{array}{l} \textbf{book/könyv} \\ \text{ARGSTR} = \left[\begin{array}{l} \text{ARG1} = x\text{: information} \\ \text{ARG2} = y\text{: phys\_obj} \end{array}\right] \\ \text{QUALIA} = \left[\begin{array}{l} \text{information.phys\_obj\_lcp} \\ \text{FORMAL} = \text{hold } (y, x) \\ \text{TELIC} = \text{read } (e, w, x.y) \\ \text{AGENT} = \text{write } (e', v, x.y) \end{array}\right] \end{array}\right]$$

However, the representation of other polysemic words may differ from that of *book/könyv* in the sense that the complex type does not occur in the characterization of any qualia. Since the word *sonata* denotes an event (the process of performance) and an information structure of a piece of music, Pustejovsky (1995, 174) proposes (9):

(9)
$$\left[\begin{array}{l} \textbf{sonata} \\ \text{ARGSTR} = \left[\begin{array}{l} \text{ARG1} = x\text{: music} \end{array}\right] \\ \text{EVENTSTR} = \left[\begin{array}{l} E_1 = e_1\text{: process} \end{array}\right] \\ \text{QUALIA} = \left[\begin{array}{l} \text{music.process\_lcp} \\ \text{FORMAL} = \text{perform } (e_1, w, x) \\ \text{TELIC} = \text{listen } (e', z, e_1) \\ \text{AGENT} = \text{compose } (e'', y, x) \end{array}\right] \end{array}\right]$$

The qualia structure of (9) only has the constituent elements of complex type *music.process* and the relation between them is expressed by means of the predicate *perform* with the category FORMAL.

It is worth looking at the representation of the word *newspaper,* which has a more complex type. This noun refers not only to an information structure and a physical object but also to an organization (institution). Therefore, the representation of *newspaper* is the following (Pustejovsky 1995, 156):

(10)
$$\left[\begin{array}{l} \textbf{newspaper} \\ \text{ARGSTR} = \left[\begin{array}{l} \text{ARG1} = x\text{: organization} \\ \text{ARG2} = y\text{: information.phys\_obj} \end{array}\right] \\ \text{QUALIA} = \left[\begin{array}{l} \text{organization.information.phys\_obj\_lcp} \\ \text{FORMAL} = y \\ \text{TELIC} = \text{read } (e, w, y) \\ \text{AGENT} = \text{publish } (e', x, y) \end{array}\right] \end{array}\right]$$

Although it is not explicit in (10), Pustejovsky remarks that *newspaper* cannot denote the entire complex type, i.e., it can have no reference to types both *organization* and *information.phys_obj* at the same time.

Now let us turn to type coercion and co-composition by means of which meanings of complex expressions, i.e., contextual meanings are construed in GLT.[12] Consider (11):

(11) (a) Mária elkezdte/folytatta/befejezte a könyvet.
Mária.nom began/continued/finished.def.3sg the book.acc
'Mária began/continued/finished the book.'

(b) Mária elkezdte/folytatta/befejezte a könyv olvasását.
Mária.nom began/continued/finished.def.3sg the book.nom reading.poss.acc
'Mária began/continued/finished reading the book.'

(c) Mária elkezdte olvasni a könyvet.
Mária.nom began.def.3sg to.read the book.acc
'Mária began to read the book.'

According to GLT, the semantic relation between the occurrences of verbs *elkezd* 'begin', *folytat* 'continue' and *befejez* 'finish' in (11a) and (11b–c) is expressed by means of type coercion. This rule provides for the direct object argument of verbs at stake to belong to the semantic type of events, independently of the form of its grammatical realization (cf. Pustejovsky 1995; 1998). Furthermore, the relevant event, necessary for the semantic well-formedness of (11a), is encoded in the lexical-semantic representation of the noun *könyv* 'book'. The representation of *book/könyv* we saw in (8) suggests that the purpose of a book (the TELIC role) is to read it. If one takes this piece of information into account, it is guaranteed that, according to type coercion, the verbs *elkezd* 'begin', *folytat* 'continue' and *befejez* 'finish' are connected with an event in (11a), where—unlike (11b–c)—the predicates *olvasás/olvas* 'reading/read' are not lexically expressed. However, the AGENTIVE role provides a further meaning: (11a) might mean not only (11b–c) but also that Mária began/continued/finished writing (or to write) the book. So, in (11a) there can be another implicit predicate because of another quale role of *book/könyv.*

Two additional remarks seem to be in order with respect to (11a). First, since the lexical-semantic representation of *book/könyv* gives two ways of construing the meaning of (11a), its disambiguation needs some

[12] In GLT there is a third mechanism, i.e., selective binding, which is not dealt with in this paper (for a discussion of it, see Pustejovsky 1995, 127–31).

contextual support. To put it differently: in order to interpret an utterance such as (11a), one needs some pieces of contextual information. Only in this case can one choose either the predicate *read* or the predicate *write* from the two lexically given possibilities, offered by the representation of *book/könyv*. Second, like the interpretations of (1), the meanings of (11a) constructed on the basis of (8) are only typical, or default, readings (Pustejovsky 1998, 304), because they can be overridden in a wider context. Below I have to return to this question several times.

To see how the other mechanism of GLT, i.e., co-composition, works, let us consider (12):

(12) (a) Az üveg/Péter a folyóban úszik.
the bottle/Péter.nom the river.ine floats/swims.indef
'The bottle/Péter is floating/swimming in the river.'

(b) Az üveg/Péter a barlangba úszik.
the bottle/Péter.nom the cave.ill floats/swims.indef
'The bottle/Péter is floating/swimming into the cave.'

Relying on Pustejovsky (1995, 125–6), one may explain the systematic polysemy exhibited by (12) in the following way. The verb *úszik* 'float/swim' has only one meaning in the lexicon, which expresses the process and manner of motion (see (12a)). The meaning 'to move in some direction in some manner' appearing in (12b) does not belong to the verb *úszik* 'float/swim' itself, but to the phrase consisting of this verb and the inflexional noun. This second, more complex meaning, associated not with a direction inherent in any motion but with a transition from an initial point to an end, cannot be derived from the constituent parts, i.e., the verb and inflected noun, by means of a simple rule of composition. One has to assume that the inflected noun also behaves like a functor (predicate) in respect to *úszik* 'float/swim'. Consequently, the meaning of the phrase *a barlangba úszik* 'is floating/swimming into the cave' is constructed by the operation which allows for several constituents to be considered functors in a simple construction and which, therefore, is called co-composition in GLT (see also Pustejovsky 1995, 122–5; Pustejovsky 1991, 62–4).

In the remaining part of this section, through comparing GLT with TCS, I show my proposals modifying GLT's conception of lexical-semantic representation and generative procedures.

3.2. Proposals concerning lexical-semantic representation

Meaning representations in the lexicon are underspecified both in TCS and in GLT. However, this character of representation has different sources. In case of the definition 'x has the goal to provide for teaching/learning processes' in (2), it derives from the presence of variable x, and in case of the verb *elmegy* 'leave' from the abstract component MOVE. At the same time, in representations (8)–(10) it originates from the content of the lexical conceptual paradigm, which contains more than one meaning. Like the alternation of primary literal meanings of *iskola* 'school', i.e., 'institution' and 'building', no single basic meaning is highlighted in the lcp. Without finishing the enumeration of arguments for the conceptions of either TCS or GLT, I indicate two features characteristic of representations in GLT but not in TCS. First, the complex type and lcp guarantee expressing the joint appearance of some meanings, i.e., the reference of a polysemic word to the complex type. However, it is not always clear on the basis of lexical-semantic representations when this is possible and when it is not (see the complex type *organization.information.phys_obj* in (10)). Second, the category FORMAL in the qualia structure encodes the relationship between the simple types which form the complex one (see also the quale AGENTIVE of *newspaper: publish (e', x: organization, y: information.phys_obj)*).

However, a problem emerges in connection with (8)–(10): How can GLT treat the other, non-metaphorical meanings of *book/könyv, sonata, newspaper.* Let us take *book/könyv* again and recall the distinction between primary and non-primary literal meanings as well. Then one can state that the primary literal meanings of *book/könyv,* i.e., 'information structure' and 'physical object', established in Bibok (1999), coincide with the meanings captured also by Pustejovsky's analysis. As for the non-primary literal meanings that can be attached to primary ones, consider (13):[13]

(13) (a) Peter is weary of the book.

(b) One of the sources of knowledge remains the book.

[13] In what follows I discuss English equivalents of the original Hungarian examples with *book*-type nouns because these languages do not differ in polysemic structures under analysis.

In (13a) the noun *book* can be interpreted as an activity concerning the book and in (13b) as not a simple information structure but a type of that. If one claims that the predicate *be weary of* has the argument from the set of events, the meaning 'activity' can be provided through the categories TELIC and AGENTIVE in the qualia structure of *book/könyv*. How do we give an account of the meaning 'type of information structure' in the framework of GLT? Before answering this question, let us turn to *sonata* and *newspaper* again. The noun *sonata* was analysed as one that belongs to *book*-type nouns (Bibok 1999) because the meanings of *book/könyv* are also characteristic of it. However, these meanings have to be complemented with others:

(14) (a) The pianist is weary of the sonata.
(b) The culmination of the concert was the sonata.
(c) Yesterday I borrowed the sonata from the audio library.

In (14a) the noun *sonata* is interpreted as an activity but in the first place, perhaps, not as a functional or creative activity (cf. the predicates *listen* and *compose* in (9)), but rather as practising and rehearsing, in general, as playing a piece of music. In (14b) one can think of a particular part of this activity, namely of a given performance, publishable later, for example, on cassette (= physical object$_2$) (cf. (14c)).

As to the noun *newspaper,* it has an even more complicated polysemic structure:

(15) (a) In 1975 Peter left the newspaper.
(b) The newspaper took part in the demonstration.

As (15a) and (15b) show, beside the meanings characteristic of *book/könyv,* the noun *newspaper* can be used with the meanings 'institution' ('organization') and 'ensemble of people', customary for *school*-type nouns. In the representation of *newspaper* in (10), however, it is only referred to the former.

Moreover, in an example such as (16) below, the activity which Peter is weary of can be connected to the physical object, information structure, complex type *information.phys_obj* or institution:

(16) Peter is weary of the newspaper.

In order to treat all the above-mentioned meanings of *book, sonata* and *newspaper* in the framework of GLT, more complex types have to be in-

troduced into their lexical conceptual paradigm. Of course, there is no principled reason not to do so, provided that the relationship between meanings is expressed. It is true that for *newspaper* one can assume a lexical conceptual paradigm somewhat different from that in (10) (Pustejovsky 1995, 155). It includes the type *printed_matter,* posited on the same level in the type hierarchy as *organization* and conceived as a type which equals the complex type consisting of the simple types *information* and *physical_object:*

(17) newspaper_lcp = {printed_matter.organization, printed_matter, organization}

Because of the necessary distinction between primary and non-primary literal meanings, however, this solution cannot be extended to all of the above-mentioned meanings of words *book, sonata* and *newspaper.* Primary meanings relate to non-primary ones in another way than complex types and their (ultimately simple) constituents do. Non-primary meanings are produced by means of attaching some meaning components to primary meanings (Bibok 1999; 2000). In the case of *school*-type nouns, the component 'ensemble of people' has to be attached to 'institution' and 'building' or, in GLT, to the lexical conceptual paradigm *institution.building_lcp.* In the case of *book*-type nouns, the component 'activity' has to be tied to 'information structure' and 'physical object' or, in GLT, to the lexical conceptual paradigm *information.phys_obj_lcp.* In addition, another non-primary meaning is derived from a non-primary one in the same way: 'activity' is attached to 'ensemble of people' (in case of *school*-type nouns), then 'element of activity' to 'activity' (in case of some *school*- and *book*-type nouns, see, e.g., *sonata*), and then 'physical object$_2$' to 'element of activity' (in case of some *book*-type nouns, see again *sonata*). Hence, from the previous discussion we have to conclude that the polysemy at issue cannot be treated via the postulation of more complex types. Without finishing the comparison of the conceptions of meaning representation in GLT and TCS, I can state that (8)–(10) should be completed anyway in order to reach more full-fledged representations of the polysemy characteristic of *book/könyv, sonata, newspaper* and in general of *book*- and *school*-type nouns.

3.3. Proposals concerning generative devices

In this subsection I examine unavoidable modifications of type coercion and co-composition.[14] Let us first consider (18), in which, unlike in (11), the subject position is filled in with common nouns such as *író* 'author' and *fordító* 'translator' and not with proper names.

(18) (a) Az író elkezdte/folytatta/befejezte a könyvet.
the author.nom began/continued/finished.def.3sg the book.acc
'The author began/continued/finished the book.'

(b) A fordító elkezdte/folytatta/befejezte a könyvet.
the translator.nom began/continued/finished.def.3sg the book.acc
'The translator began/continued/finished the book.'

How does the change of words in subject position effect the interpretation of (18a) and (18b)? In the former the noun in the subject position confirms one of the lexical possibilities, encoded in the quale AGENTIVE of *book/könyv:* 'The author began/continued/finished writing the book.' In the latter utterance, however, the noun *fordító* 'translator' overrides the information in both the TELIC and AGENTIVE roles of *book/könyv.* Thus, we get the following interpretation: 'The translator began/continued/finished translating the book.' It is worth noting that these interpretations seem to be only default (typical) ones because a wider context may change them.

Consequently, the event necessary for the construction of utterance meaning can be provided not only by the categories TELIC or AGENTIVE, but also the words in subject position may have an effect on utterance meaning. Without any further contextual specificity, they confirm either the events guaranteed by the lexical-semantic representation of words in object position, or they override the information accessible on the basis of the lexicon. In some cases, however, it is obligatory to get over the object argument of the verbs *elkezd* 'begin', *folytat* 'continue' and *befejez* 'finish' in order to reach an appropriate utterance meaning. Although the function of the car is to drive it (Pustejovsky 1995, 113), the phrase *begin a car* does not mean 'begin to drive a car' (Fodor–Lepore 1998, 281). Let us take (19) to analyse this problem in more detail.

[14] An earlier version of these proposals appeared in Bibok – Németh T. (2001).

(19) Öt perccel ezelőtt a szerelő elkezdte a kocsit.
five minute.ins ago the mechanic.nom began.def.3sg the car.acc
'Five minutes ago the mechanic began the car.'

If knowledge about the function of the car or the factors involved in the object's origin do not result in an adequate utterance interpretation, one can rely on the noun featuring in the subject position of the verb *elkezd* 'begin'. Let us suppose that the noun *szerelő* 'mechanic' denotes a person whose profession is to repair cars and similar vehicles according to the TELIC quale[15] or to the second argument of GOAL component. This representation of *szerelő* 'mechanic' helps to get the relevant interpretation of (19): 'Five minutes ago the mechanic began repairing the car.'

On the basis of the above, I want to stress that there is a good reason to distinguish two things with respect to the rule of type coercion. Since it is possible or even necessary in some cases to take into account nouns in the subject position, the component of construction of utterance meaning which provides for the relevant event to begin/continue/finish etc. has to be separated from type coercion itself, which appears in connection with the object argument of the verb *elkezd* 'begin', *folytat* 'continue', *befejez* 'finish' etc.

It is also obvious from the above discussion that—in connection with the possibility of interpretations provided by qualia structures of nouns in non-object position—there is another problem of type coercion: How are the meanings expected on the basis of Pustejovsky's proposal excluded as incorrect? The improductivity of type coercion has different reasons, so it can be accounted for in several ways (cf. Trón 2002, 300–6). First, there may be a selection restriction which constrains availability of a quale of a particular noun (see Fodor–Lepore's remark concerning *begin a car*). Second, a selection restriction can be postulated to put a constraint on the application of a quale. For example, the verb *enjoy* selects the TELIC quale of a noun if the event in that quale denotes perception or consuming. Cf. *enjoy the film/beer* vs. **enjoy the doorknob/federal government/carpet tack* (the ill-formed phrases are Fodor–Lepore's 1998, 281). Third, it may be lexicalized in a verb what serves as an event, independently of the qualia structure of the argument: e.g., *want a book/bicycle* 'want to have a book/bicycle'.[16]

[15] Cf. representation of such a word as *typist* in Pustejovsky (1995, 128).

[16] As one of the reviewers suggested, the fact that type coercion based on qualia structures does not operate in the case of a particular phrase may be captured by

After modifying the type coercion rule, I turn to a critical evaluation of Pustejovsky's co-composition. To begin with, let us consider further pairs of examples illustrating some verbs that vary the same way as *úszik* 'float/swim' in (12) does:

(20) (a) Péter a járdán szalad/rohan.
Péter.nom the pavement.sup runs/rushes.indef
'Péter is running/rushing on the pavement.'

(b) Péter a járdára szalad/rohan.
Péter.nom the pavement.sub runs/rushes.indef
'Péter is running/rushing onto the pavement.'

(21) (a) A balerina a párja előtt forog.
the ballerina.nom the partner.poss.nom in.front.of spins.indef
'The ballerina is spinning in front of her partner.'

(b) A balerina a párjához forog.
the ballerina.nom the partner.poss.all spins.indef
'The ballerina is spinning to her partner.'

(22) (a) Péter a szőnyegen könyököl/guggol.
Péter.nom the carpet.sup leans.on.one's.elbows/crouches.indef
'Péter is leaning on his elbows/crouching on the carpet.'

(b) Péter a szőnyegre könyököl/guggol.
Péter.nom the carpet.sub leans.on.one's.elbows/crouches.indef
'Péter is leaning on his elbows/crouching onto the carpet.'

The examples demonstrate that the sort of polysemy at stake is characteristic of utterances containing verbs whose lexical meanings have a motion component denoting change of place (cf. (12) and (20)) or change of position (cf. (21)), or do not have such a component at all (cf. (22)).

Considering (12) and (20)–(22) more carefully, I want to point out that in the (b)-examples—in comparison with the (a)-examples containing local expressions—there is a change of the argument structure because the verbs take directional arguments. Although knowledge of the change of argument structure is sufficient from the point of view of the argumentation below, one also has to make the initial argument structure clear

blocking, which, I supposed in section **2**, explains the failure of alternation of 'institution' and 'building' of the nouns *kormány* 'government' and *palota* 'palace'. To be sure, the improductivity of type coercion is an issue which requires further investigation.

for the complete description. Let us examine it with the verbs in (12a), (20a), (21a) and (22a). If we agree with Pustejovsky (1995, 125) in whose opinion there is no local argument in the argument structure of *float*, the verbs *úszik* 'float/swim', *szalad* 'run', *rohan* 'rush', *forog* 'spin', *könyököl* 'lean on one's elbows' and *guggol* 'crouch' would be one-argument verbs and, consequently, the nouns with local inflexions or postpositions would function as adjuncts. The fact that the nouns in question can be omitted in some utterances seems to support this idea. However, one can think of them as arguments on the basis that localization is inherently involved in being in motion or position in some manners. Hence, the verbs *úszik* 'float/swim', *szalad* 'run', *rohan* 'rush', *forog* 'spin', *könyököl* 'lean on one's elbows' and *guggol* 'crouch' are two-argument verbs, that is, local arguments are indispensable in their argument structure. In this case the omission of the nouns with local inflexions and postpositions in some utterances can be explained as remaining implicit on the syntactic level, but on the semantic level the number of arguments does not decrease at all.

At this point the following question arises: given that the meanings of (b)-examples are construed by a co-composition of verbs and nouns with local inflexions/postpositions, what constitutes the information on the basis of which these verbs and their directional arguments can co-occur? Offering a co-compositional amalgamation of constituents of a construction, Pustejovsky does not deal with how verbs playing the role of predicates semantically select their arguments and how arguments behaving also as functors semantically select verbs. If taking directional arguments were not an idiosyncratic property of the verbs at issue, perhaps, one could formulate a lexical rule changing the argument structure, like Komlósy does (1992, 352–4) in case of the verbs which originally mean the manner of a motion. In the sense of such a solution if a verb denotes a manner of motion or a spatial position, a directional argument appears with it. This rule of changing the argument structure has no general validity in the range of lexemes with relevant meaning components. On the one hand, one also has to take into account if a directional argument is lexically fixed (cf. *heveredik* 'lie down at full length'), the use of the rule is blocked in case of the verb denoting the corresponding manner (*heverészik* 'be lying'). On the other hand, let us consider the statement that only a small group of verbs which denote the manner of a motion of inanimate things that are able to move in consequence of external effects is suitable for expressing the proceeding motion (Komlósy 2000, 257). The point of this statement is that the group of verbs under

discussion does not behave homogeneously. For example, the verb *inog* 'wobble' does not take any arguments referring to an end-point but the verb *pattog* 'bounce' does. Cf.

(23) (a) Az asztal sokáig inog a fal mellett / a padlón
the table.nom for.long wobbles.indef the wall.nom by / the floor.sup
(majd felborul).
then falls.over.indef
'The table wobbles for a long time by the wall / on the floor (then it falls over).'

(b) *Az asztal a fal mellé / a padlóra inog.
the table.nom the wall.nom to / the floor.sub wobbles.indef
'The table wobbles to the wall / onto the floor.'

(24) (a) A labda sokáig pattog a fal mellett / a padlón.
the ball.nom for.long bounces.indef the wall.nom by / the floor.sup
'The ball bounces for a long time by the wall / on the floor.'

(b) A labda (az asztaltól) a fal mellé / (az asztalról)
the ball.nom the table.abl the wall.nom to / the table.del
a padlóra pattog.
the floor.sub bounces.indef
'The ball bounces (from the table) to the wall / onto the floor.'

Even if one formulated the rule of changing the argument structure, also handling correctly exceptions in connection with verbs of manner of motion and spatial position, it would result in a solution that ultimately each verb in question would be represented in the lexicon twice according to its two different argument structures. We should realize that if we want to treat the selection from the other direction, i.e., how arguments choose verbs, we would encounter the same difficulties.

Thus, we have come to a contradiction not only with the requirement of economy of lexical representation (Bierwisch 1997), but also with one of the fundamental efforts of GLT. Recall that GLT assumes a number of generative devices that are used to contextually construct semantic expressions, rather than enumerating meanings in the lexicon. Co-composition can be regarded as a device to produce the actual, contextually evoked senses only in case the change of argument structure is given account of without duplicating lexical entries with two different selectional properties.

If, to the facts enumerated in **3.3**, we add that both GLT and TCS admit the possibility of underspecification of lexical-semantic representations, I can propose the following to avoid the problem of co-composition. Each verb in (12), (20)–(22) and (24) has to be treated as a single lexical item. It joins the meanings appearing in both (a)- and (b)-lines but contains all that is relevant for the directional argument structure in (b)-examples only as an optional part of the representation. At the same time, this modification of the generative device in question means that both utterance meanings are derived co-compositionally. As to the part of representations necessary to treat the examples in the (b)-lines, it can be depicted as (25) in view of the totality of the verbs discussed:

(25) [[MOVE x] : [FIN [LOC x] α [LOC u]]]

The formula (25) reads as follows: x moves so that the place [LOC u] to which x moves has a relation symbolized by α, such as 'in', 'on', 'under', 'behind', 'by' etc., to the end of a path, which is the result of applying the component FIN to x's place, i.e., [LOC x].

In the meaning representations of verbs such as *úszik* 'float/swim', *szalad* 'run', *rohan* 'rush', *pattog* 'bounce', *forog* 'spin', *könyököl* 'lean on one's elbows', *guggol* 'crouch', *inog* 'wobble', *heveredik* 'lie down at full length' and *heverészik* 'be lying', one can use (25) in the following way:

(a) If the meaning 'move in some direction in some manner' is lexicalized (e.g., *heveredik* 'lie down at full length'), the formula (25) is an obligatory part of the representation of the verb and not optional. Of course, the lexicalization of the other meaning under discussion (e.g., *heverészik* 'be lying') makes (25) unnecessary.

(b) The meaning component FIN is bracketed as an optional part of the representation in case of all verbs excluding lexicalized meanings. It becomes relevant in such contexts as the (b)-examples above.

(c) If there is not a local argument in an argument structure—as Pustejovsky (1995, 125) treats the verb *float*—, the formula [[LOC x] α [LOC u]] expressing spatial location has to be put into round brackets as an optional part of the representation. This formula is needed when the meaning component FIN is activated in the (b)-lines. However, if one insists that the localization is involved in being in motion or position in some manners and, consequently, the verbs under discussion are two-argument verbs, the expression [[LOC x] α [LOC u]] never appears in round brackets.

(d) As to the formula [MOVE x], it is quite natural that it has to be bracketed if the verb in the (a)-line does not refer to a motion but a state (*könyököl* 'lean on one's elbows' and *guggol* 'crouch'). In contrast with this, if some verbs (e.g., *úszik* 'float/swim', *szalad* 'run', *rohan* 'rush', *pattog* 'bounce', *forog* 'spin') refer to the motion in the (a)-lines, the part [MOVE x] of formula (25) must not be optional in the representations of these verbs.

Thus, we have created a modified version of co-composition giving the meaning of a phrase so that arguments change the abstract, underspecified meaning representations of verbs containing some of their parts in round brackets into concrete ones. This concretization can be done either by the omission of meaning elements in round brackets, e.g., FIN in case of the inflected noun *folyóban* 'in river' in (12a), or by taking bracketed components into consideration, e.g., FIN in case of the inflected *barlangba* 'into cave' in (12b). This latter operation technically equals the deletion of round brackets indicating the optionality in meaning representations. The modified version of co-composition can also be applied to cases where the problem concerning the change of argument structure does not occur, e.g., in (26):

(26) (a) Péter kilépett a templomból.
Péter.nom left.indef.3sg the church.ela
'Péter left the church (= the building).'

(b) Péter kilépett az egyházból.
Péter.nom left.indef.3sg the church.ela
'Péter left church (= the institution).'

The underdetermined representation of the verb *kilép* 'leave' is not captured by means of putting optional parts into round brackets, like in the representations of the verbs in (12), (20)–(22) and (24). Rather, the meaning component MOVE figures in a very abstract meaning, as in case of the verb *elmegy* 'leave' in (1). The component MOVE is only concretized and refers to a physical motion (change of place) and a "social motion" (change in affiliation), depending on the directional (source) arguments *templomból* and *egyházból* with lexically fixed meanings 'church as building' and 'church as institution', respectively.

Now let us recall the examples treated as cases of conceptual selection in section **2**. For the sake of convenience I repeat them here:

(1) (a) 1975-ben Péter elment az iskolából.
1975.ine Péter.nom left.indef.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.indef.3sg the school.ela
'At ten o'clock in the morning Péter left the school.'

It is easy to realize that the meanings of utterances in (1) can also be construed by means of the modified version of co-composition. One additional point that we have to add to what has been said so far is that because of the underspecified character of the noun *iskola* 'school', only further contexts, namely the time adverbials *1975-ben* 'in 1975' and *délelőtt tíz órakor* 'at ten o'clock in the morning', lead to the typical readings of (1a) and (1b).

3.4. On the relation between TCS and GLT in general

To conclude my critical assessment of GLT, I want to make some remarks about the connection of TCS and GLT. As for lexical-semantic representation, I want to point out once more that both conceptions admit the possibility of underspcification of lexical entries. There are differences in regard to the manifestation of this underspecified character of representations, but TCS itself uses several formats according to different lexemes, cf. variables bound by lambda-operators and existential quantifiers as well as optional components in round brackets. The latter form of representation is essentially equal to the solution of GLT when several—but not all—meanings of a word appear in a single representation. It is worth noting that this manner of representation of polysemy was proposed in TCS not only for verbs but also for nouns. Pethő (1998) introduced the mechanism of conceptual focussing, details of which—because of space limitations in the present paper—I cannot go into, but I want to mention two features of the representations of *school*-type nouns where this mechanism provides a superior explanation. First, it eliminates the problem concerning the interpretation difference of the meaning component GOAL in cases of 'institution' and 'building' (Taylor 1994). According to Pethő's solution, only the institution has the goal to provide for teaching/learning processes, but the goal of the building is to provide the location for the institution. Second, in contrast with Taylor's (1994) and Kiefer's (2000) analyses based on the metonymical relation between

meanings, Pethő does not reject the assumption of TCS about the underspecfication of lexical-semantic representations. This latter point of view coinciding also with that of GLT can be fully accepted in the light of the above discussion. However, I want to stress that if one takes into account various possibilities of underspecification in the framework of TCS, Taylor's objection against the homogeneous interpretation of the meaning component GOAL does not raise any problems at all. Like the abstractness of MOVE in representations of *elmegy* and *kilép* (both 'leave'), GOAL can be treated as a meaning component which is not specific in respect to whether it concerns an institution or a building (cf. the variable x in (2)). In addition, the above-mentioned difference of interpretations of GOAL and the relation between the meanings 'building' and 'institution' can be captured via the qualia structure of GLT, similarly to the quale FORMAL of *book/könyv,* i.e., *hold (y: physical object, x: information).*

Now let us compare the forms of lexical-semantic representations in TCS and GLT with each other once again. With a constraint, one can neglect the differences in the forms of underspecification. The constraint concerns the distinction between language knowledge and world knowledge, which may be connected with various manners of representation. Nonetheless, in the remaining part of the present paper I will ignore this distinction since another one is relevant for the delineation of lexical pragmatics. As has been indicated in **1**, the point is how the great number of meanings appearing in contexts are inferred from lexically encoded information. Hence, over and above the similarities it has to be stressed how the lexical representations applied in TCS and GLT complement each other. So, I want to sum up the discussion from this point of view. As far as GLT is concerned, there are the following ideas which TCS should bear in mind: the qualia structure, the meaning expressed by the complex type, and the relationship between types forming the complex type. As to TCS, it could direct the attention of GLT to various ways of being underspecified and the more comprehensive handling of some polysemic words.

In the field of proposing mechanisms yielding contextual meanings, there is a clear desire to establish more complex ways of composition than in its classical versions. This endeavour resulted in the elaboration of similar devices, i.e., conceptual selection in TCS and co-composition in GLT. At the same time, both theories propose such procedures, namely conceptual differentiation (TCS) and type coercion (GLT), which make the repertoire of construing utterance meaning more full-fledged. Fur-

thermore, it is important that the modifications offered in connection with type coercion and co-composition in **3.3** have led to the more significant role of contexts and, consequently, to the more underspecified character of lexical-semantic representations.

4. RT and lexical pragmatics

4.1. Decoding and inference in RT

To outline how Relevance Theory contributes to lexical pragmatics and how it co-operates with TCS and GLT in that framework, let us start with the following. According to RT, utterance interpretation consists of two phases: of decoding the linguistically encoded information resulting in the logical form and of executing relevant inferences. These two operations provide the assumptions intended in communication, i.e., the mental representations considered as representations of the possible world in question: decoding and inference yield explicatures. However, (conversational) implicatures are created only by means of inferential processes.

Before considering the elements of relevance theoretical interpretation one after the other in more detail, let us turn to two principles of Relevance. The Communicative Principle of Relevance says that every utterance (and, ultimately, every communicative act) conveys a presumption of its own optimal relevance (Sperber–Wilson 1995, 158). An utterance is optimally relevant if, on the one hand, it has enough contextual effects in order to be worth the communicative partner's processing effort, and, on the other hand, if it does not require the communicative partner's unnecessary processing efforts. The contextual effects which we get by means of the processing of utterances in contexts may have three types (*ibid.*, 108–17). Newly represented assumptions either (a) strengthen old assumptions, (b) eliminate contradictions existing between the old assumptions, or (c) result in new conclusions when they inferentially combine with old ones. Contexts are not given in advance, but the communicative partner chooses the corresponding one during construing the utterance meaning so that his/her expectations concerning relevance are fulfilled. Further, if it is necessary, immediate contexts can be extended. Extended contexts emerge in the following three ways: (a) when the interpreter takes into consideration information originating from a not immediately preceding utterance of discourse, (b) when he/she includes encyclopedic information connected to concepts figuring in the utterance or already processed

in the context, and (c) when he/she integrates information from the immediately observable environment (*ibid.*, 132–42).

Sperber and Wilson hold that communication is one of the important manifestations of human cognition and, according to this, the requirement of relevance is valid for the whole of human cognition. They formulate the Cognitive Principle of Relevance (*ibid.*, 260): human cognition is geared towards the maximization of relevance. To put it differently, the human mind not only aims at seeking and justifying relevance but also at achieving as many contextual effects as possible for as little processing effort as possible.[17]

Returning to the two phases of utterance interpretation, it has to be stressed that the resulting logical form is always incomplete. To get a full-fledged proposition, at least reference assignment and disambiguation are to be executed. Even if a complete propositional form is arrived at in this way, its enrichment is required to develop the proposition expressed by the given utterance. Consider this example from Wilson–Sperber (2002, 607):

(27) (Lisa drops by her neighbours, the Joneses, who have just sat down to supper.)
Alan Jones: "Do you want to join us for supper?"
Lisa: "No, thanks. I've eaten."

Decoding Lisa's second utterance (with the assumption that the verb *eat* is not ambiguous) and assigning references, one can get the complete proposition in (28):

(28) 'At some point in a time span whose endpoint is the time of utterance, Lisa has eaten something.'

However, (28) says less than Lisa intended to communicate with her utterance. For this (28) has to be expanded according to the Communicative Principle of Relevance:

(29) 'Lisa has eaten supper that evening.'

In the framework of RT, (29) is called explicature (Sperber–Wilson 1995, 182), coined analogously with the commonly used term *implicature* of Gricean pragmatics.

[17] For a reduction of the Communicative Principle of Relevance and other (Gricean and neo-Gricean) pragmatic principles onto the Cognitive Principle of Relevance, see Németh T. (2004).

Furthermore, on the basis of Lisa's second utterance, Alan can also infer some implicatures, again in accordance with the Communicative Principle of Relevance. An implicit premise and an implicit conclusion, derivable from this premise and (29), figure in (30) and (31), respectively:

(30) 'The fact that one has already eaten supper on a given evening is a good reason for refusing an invitation to supper that evening.'

(31) 'Lisa is refusing supper with us because she has already had supper this evening.'

Following Grice (1978), neo-Gricean pragmatics (see, e.g., Levinson 2000) maintains that implicatures are cancellable without giving rise to a contradiction. Post-Gricean RT, however, claims that it is pragmatic inference quite generally that is defeasible. In other words, since pragmatic inference plays a considerable role in the derivation of explicatures, elements of the explicit content of utterances are also cancellable. And since certain entailments may be implicatures, not all implicatures are cancellable. (For details see Carston 2002, 134–52.) Here it is important to emphasize that cancellability/defeasibility of elements of utterance meaning also appears in TCS (cf. expressions *most likely* and *typically* with regard to interpretations of (1)) and in GLT (cf. typical, or default, readings of (11a)).

Let us return to explicatures, which have two further kinds. First, if a proposition expressed by an utterance is embedded in a description of the speaker's propositional attitude, a speech act description or some other comment on the embedded proposition, it is called higher-level explicature (Wilson–Sperber 1993, 5). Second, there are situations when the speaker does not intend to communicate the proposition expressed by an utterance but another representation with which it is in a relation of resemblance. In such cases only the latter represents the speaker's explicit meaning. This is the case when the speaker communicates unencoded meanings by way of loose use (Wilson–Sperber 2002). A kind of loose use is metaphor, which I will examine now in more detail from the point of view of RT. Song (1998) mentions the following problems concerning previous pragmatic approaches to it:

(a) It is not entirely clear where the borderline between literal and metaphorical interpretations is.

(b) As a consequence of (a), the statement that the literal interpretation of the whole utterance always precedes the metaphorical one is questionable.

(c) Processing utterances does not involve choosing one set of interpretations from an exhaustive list of possible interpretations.

(d) Defectiveness of literal interpretations is not a necessary condition of a metaphorical utterance.

(e) The notion of similarity making the metaphorical interpretation possible is not well elaborated.

RT's approach to metaphor is superior to earlier pragmatic approaches because it provides a more general account of the interpretation of both metaphorical and non-metaphorical utterances without relying on the distinction between literal and metaphorical meanings (Song 1998, cf. also Wilson–Sperber 2002).

After the survey of roles which inference plays in finding the intended information, i.e., explicatures and implicatures, it is necessary to sketch out the types of information encoded in utterances. The novelty of RT in this respect is the delineation of procedural meanings from conceptual ones (Wilson–Sperber 1993). The former are characteristic of linguistic expressions whose encoded meaning imposes a constraint or instruction on the pragmatic inferential phase of utterance interpretation. Encoded procedural pieces of information constrain the propositions expressed (through personal pronouns such as *I* and *you*), higher-level explicatures (through discourse particles such as *eh*) and implicatures (through discourse connectives such as *so* and *after all*).

The conceptual meanings are characteristic of linguistic forms whose encoded meaning contributes concepts to the propositions expressed (most words belonging to independent or major parts of speech; for examples, see below) and higher-level explicatures (sentence adverbials, including illocutionary adverbials such as *seriously* and *frankly*).[18] In connection with conceptual meaning, the most important question from the present point of view is how RT represents concepts. Accepting the holistic view advocated by Fodor et al. (1980), Sperber and Wilson (1995, 86–93) consider concepts as entities that cannot be defined in terms of, or decomposed into, more primitive components. Although in this sense the concepts themselves are wholes, the information that may be stored in memory at a conceptual label falls into three distinct types: logical, encyclopedic and lexical. Logical information consists of a set of deductive

[18] According to Wilson and Sperber (1993) discourse connectives are best analysed not only in procedural terms but also as cases of explicit communication rather than as cases of Gricean conventional implicatures.

rules which apply to logical forms of which that concept is a constituent. The rules yield outputs from which the given concept has been removed. Hence they are called elimination rules. For example, the logical rule of *and*-elimination takes as input a single conjoined premise and yields as output one of its constituent conjuncts. Sperber and Wilson assume logical information not only in the case of logical concepts proper but also in the case of others regarded by logic as not logical (e.g., 'know', 'run' and 'bachelor'). Thus one can easily identify the elimination rules which express the logical properties of concepts with the meaning postulates proposed by Fodor et al. (1980).

The second type of information stored at a certain conceptual label is encyclopedic: it contains information about the extension and/or denotation of the concept, i.e., about the objects, events and/or properties which instantiate it. This type of information can be captured in terms of prototype theory or frame semantics.

Finally, at a conceptual label there is lexical information, which includes the phonological and syntactic properties of the natural-language counterpart of the concept.

Each of the above-mentioned three types of information is not necessary to characterize each concept, one or another of them may be lacking for certain concepts. For example, proper names can be seen as having no logical information, and the concept 'and' as lacking encyclopedic information. And there may be concepts which are not lexicalized and which therefore have no lexical information. Furthermore, beside lack of logical information and having logical information which amounts to a proper definition of the concept, Sperber and Wilson's (1995, 92) framework allows for cases providing some logical specification of the concept without fully defining it. The latter is true, for instance, for natural kind terms. Further, in their more recent work Sperber and Wilson (1998, 185) state that many words such as *my, long* etc. do not seem to encode a full-fledged concept. So, underspecificity can be found not only at the level of logical form but also at the level of its constituents, i.e., concepts. This underspecificity always induces inferential processes during the interpretation of utterances. (Cf. also Wilson–Sperber 2002, 623.)

4.2. Possibility of word meaning decomposition in lexical pragmatics

As is evident from the above discussion, RT substantially differs from TCS and GLT in respect to the representation of concepts and, conse-

quently, to meanings of words expressing them. According to RT, concepts providing the meaning for non-procedural words are not decomposable, that is to say, they are whole units in this sense. At the same time, according to TCS and GLT, word meanings have internal structure, i.e., they are composed out of more primitive meaning components. In this subsection I will argue that decomposition is more suitable than the holistic view. To begin with, let us consider (32) and (33), which include the decomposed meaning representations, in traditional format, for the verbs *kill* and *give*, as well as (34) and (35), which show meaning postulates assigned to the same two verbs by a holistic view (cf. Jackendoff 1990, 39).

(32) CAUSE (x, BECOME (y, not ALIVE (y)))

(33) CAUSE (x, HAVE (y, z))

(34) x killed $y \rightarrow y$ died

(35) x gave z to $y \rightarrow y$ had/has z

One can easily realize that, in contrast with the contingency of entailments in (34) and (35), the events expressed by means of *die* and *have* obviously result from the internal structure of (32) and (33). Surely the meaning of *die* can be represented as BECOME (y, not ALIVE (y)) and that of *have* as HAVE (y, z). The meaning representations (32) and (33) indicate not only the relation between *kill* and *die* as well as *give* and *have* but also the possibility of generalizing between the members of causative–noncausative pairs. The following schema, where e = event, can be proposed:

(36) x causes e to occur $\rightarrow$ e occurs

In other words, the schema in (36) established through decomposition of verb meanings brings into connection the otherwise unrelated meaning postulates in (34) and (35). A conclusion can be drawn that the meaning postulate approach misses all generalizations across relational properties of lexical items (cf. Jackendoff 1990, 39).

Let us examine the two different meaning representations from another point of view. Now I start from the underspecific character of word meanings in terms of RT that words such as *my* and *long* encode no full-fledged concepts. Unlike Fodor et al. (1980), in this case one cannot expect that the meaning decomposition gives the necessary and at

the same time sufficient conditions of application of words. Although this statement weakens the criticism against decomposition, it is worth raising the question: how would RT or the meaning postulate approach handle polysemy if we wanted to apply an underspecified representation to capture the relation between various meanings rather than enumerating these meanings? Using the notion of complex type, in the case of *book* we could write the following entailment:

(37) $x.y$ is a book → information.phys_obj_lcp

As has been argued in **3.2**, the noun *book* also has other meanings, which can be expressed in terms of meaning postulates via (38) and (39):

(38) $x.y$ is a book → $x.y$ is an activity

(39) y is a book → y is a type of information

Do (38) and (39) give account of the meanings 'activity' and 'type of information', respectively? Yes, of the meanings themselves. However, they do not express that these meanings are connected to those represented in (37). Furthermore, on the basis of (38) and (39) it is not clear that the meanings are generally characteristic of the *book*-type nouns, i.e., the words with 'information', 'physical object' and the complex type consisting of the former simple types.

The meaning postulate approach does not seem to be successful in capturing the information represented in (25) in subsection **3.3**, either. Let us recall that each of the verbs in (12), (20)–(22) and (24) can be handled as a single lexical entry if the meanings in (a)- and (b)-examples are represented as one abstract meaning with optional parts (e.g., FIN), which are only relevant in the second context. In the opposite case the meaning postulates like the ones below would be needed:

(40) x úszik 'float/swim' / szalad 'run' / rohan 'rush' / pattog 'bounce' / forog 'spin' / könyököl 'lean on one's elbows' / guggol 'crouch' → x moves in some place

(41) x úszik 'swim/float' / szalad 'run' / rohan 'rush' / pattog 'bounce' / forog 'spin' / könyököl 'lean on one's elbows' / guggol 'crouch' → x moves to some place

However, (40) and (41) do not indicate the semantic relation between the members of verb pairs at all. If one tried to express the relation between 'to some place' and 'in some place' in terms of meaning postulates, the probable schema would tell no more than what clearly follows from the

corresponding formula composed out of meaning components, i.e., [(FIN) [LOC x] α [LOC u]].[19]

As has been claimed above, meaning decomposition is not a method that guarantees the necessary and, at the same time, sufficient conditions of application of words. Consequently, it cannot been considered the only way of the meaning representation. Instead, prototype theory, which was mentioned in connection with the conceptual differentiation of TCS and the encyclopedic information stored at conceptual addresses in RT, plays a significant role, as well. Surely, independently of whether words encode full-fledged concepts, prototype semantics provides characteristics of a heuristic, mainly perceptual and functional kind which structurally determine cognitive processes such as picking out instances of concepts. This way we arrive at a conception of meaning representation according to which the meaning structure of lexemes is not uniform but consists of constituents accessible by means of various methods of analysis. In addition, different words include various constituents to a different degree. Besides, we have to take into account that logical words (*and, or, not, all* etc.) and lexical items with procedural meaning are to be handled in different ways, i.e., not in terms of semantic decomposition and/or prototype theory.[20]

4.3. Immediate and extended contexts in lexical pragmatics

The role of contexts in utterance interpretation in the view of lexical pragmatics amounts to much more than choosing a meaning from a set fixed in an underspecified representation. Before dealing with the details of this issue, I want to point out that, following Bibok–Németh T. (2001), by *immediate context* I mean the remaining part of the utterance under investigation in the subsequent sections of the present paper. Such a treatment of the immediate context seems to be in order not only in absence of an utterance immediately preceding the utterance under investigation but also because certain constituents of the utterance, a word

[19] In contrast to Fodor et al. (1980), psycholinguistic investigations by Gergely and Bever (1986) show that relatedness intuitions cannot be used as a critical test of the relative complexity of syntactic and semantic representations of predicates. For further arguments against the meaning postulate approach, see Bierwisch (1997, 232–3); Jackendoff (1990, 40–1).

[20] For a typology of words based on the various kinds of representation of their meaning, see Bibok (2000).

of which one wants to understand, can serve as a context to get its pragmatically enriched meaning. In addition, since the conceptual meaning of words is represented in terms of decomposition and/or prototype theory, semantic information from these internal structures, including encyclopedic information provided by prototype, is directly given in the immediate context. Below I will show that the immediate context, understood in this way, plays a crucial role in lexical pragmatics, unlike in RT but in accordance with TCS and GLT.

As for *extended context*, it refers to extending the immediate context, defined as above. Lexical pragmatics regards as an extended context an utterance immediately preceding the utterance under investigation, unlike RT, which only takes an utterance occurring earlier in the exchange as a case of extending contexts. This divergence from RT does not create a conceptual problem because RT itself allows for multiple extending of contexts. Further, according to lexical pragmatics, contexts can be extended by the help of information from the immediately observable environment (as in RT) and through encyclopedic information, not captured in prototype structures, e.g., world knowledge about denotations of proper names, which appear both in immediate contexts and previous utterances.

As has been said in connection with (18b), the noun *fordító* 'translator' overrides the information in both the TELIC and AGENTIVE roles of *book/könyv.* In terms of RT it can be made explicit as follows: if in the position of syntactic subject of an utterance there is a noun which refers to a person's profession, the hearer may infer another event connected to *book/könyv.* On the basis of this immediate context—for lack of further contextual specificity—he/she gets the following relevant interpretation: 'The translator began/continued/finished translating the book.' Contrary to a default utterance such as *Mária elkezdte/folytatta/befejezte a könyvet* 'Mária began/continued/finished the book' (= 11a), the interpretation of an utterance with the noun *fordító* 'translator' (= 18b) needs more cognitive effort, which, in turn, is recovered with the more specific contextual effects yielded by the processing (18b).

In a case when neither the noun in the position of syntactic object nor the immediate context, i.e., the noun in the position of syntactic subject, result in a relevant interpretation, the hearer has to apply context extension to it. Let us consider (42):

(42) Péter elkezdte/folytatta/befejezte a könyvet.
Péter.nom began/continued/finished.def.3sg the book.acc
'Péter began/continued/finished the book.'

The noun itself occurring in the syntactic subject position of (42) does not provide enough information for a relevant interpretation. However, if one extends the context by means of the encyclopedic information concerning the Péter's profession, one may get the relevant interpretation. For example, if it is known that Péter is a translator by profession, (42) probably means that he began/continued/finished to translate the book. Furthermore, according to RT, contexts can also be extended by means of the discourse context or immediately observable physical environment. So, if the relevant "world" is constructed in the context of a discourse or we can see a little boy who has torn up a book, (42) can refer to an event such as Péter began/continued/finished to tear the book to pieces.

To sum up, as to how to interpret the verbs *elkezd* 'begin', *folytat* 'continue', *befejez* 'finish', I can generally state the following. With these and similar verbs, the lexically unrealized (implicit) predicate is identified in three ways: (a) if lexical-semantic representations of nouns in syntactic object position provide the events for relevant interpretation; if (b) the rest of the utterance or (c) an extended context give grounds for a pragmatically acceptable assumption.

The same interpretation mechanisms are suitable for implicit arguments (Németh T. 2001). For example, the unrealized object of the verb *eszik* 'eat' can be identified not only in the way illustrated in connection with (27), i.e., by means of extending the context but also via the lexical-semantic representation of that verb or its immediate context. Let us assume that, independently of the lexical realization, the verb *eszik* 'eat' always has two arguments on the semantic level because the activity denoted by that verb is logically inconceivable without a second argument. Furthermore, its lexical-semantic representation contains a selectional restriction put on the second argument: it has to be of the type *food.* Consider (43) answering the question *Mit csinál Péter?* 'What is Péter doing?'

(43) Péter eszik.
Péter.nom eats.indef
'Péter is eating.'

A hearer can try to interpret (43) without any specific context. In decoding the verb *eszik* 'eat', he/she arrives at more specific information than 'eat something', figuring in logical form (28) (cf. Wilson–Sperber 2002). It is enough for him/her to rely on the selectional restriction of that verb to get a relevant interpretation: 'Péter is eating something that can be eaten (i.e., food).'

Now consider (44) answering the question *Mit csinál a felesége?* 'What is his wife doing?'

(44) A felesége fogta a tányért és a kanalat, és eszik.
the wife.poss.nom took.def.3sg the bowl.acc and the spoon.acc and eats.indef
'His wife took the bowl and spoon and is eating.'

Let us try to interpret (44) without any specific context, external to that utterance. In (44) the lexical-semantic representation of the verb *eszik* 'eat' including the appropriate selection restriction alone does not yield a relevant interpretation. We have to take into account the rest of the utterance, i.e., the immediate context to identify the lexically unexpressed direct object argument. The encyclopedic information stored with lexical items of the utterance makes accessible an assumption like the following: Adult people typically eat liquid food, e.g., soup or a vegetable stew, out of a bowl and with a spoon. Naturally, a little child may eat other food with a spoon, but this reading cannot come into one's mind without specific indication because, according to our encyclopedic knowledge, the lexeme *feleség* 'wife' typically denotes an adult human being. Hence the relevant interpretation of (44) may be that 'his wife took the bowl and spoon and she is eating soup, a vegetable stew or something similar out of the bowl with a spoon'.

Utterance meanings yielded through co-composition or conceptual selection can also be derived by means of the three interpretation mechanisms shown in cases of implicit predicates and arguments. First, underspecified predicates are influenced by lexically encoded meanings of arguments: the verbs *úszik* 'float/swim', *szalad* 'run', *rohan* 'rush', *pattog* 'bounce', *forog* 'spin', *könyököl* 'lean on one's elbows' and *guggol* 'crouch' by nouns with local or directional inflexions and postpositions (cf. (12), (20)–(22), (24)) as well as the verb *kilép* 'leave' by the nouns *egyház* 'church = institution' or *templom* 'church = building' (cf. (26)). Second, immediate contexts provide the relevant information to infer meanings of verb phrases. For example: the time adverbials *1975-ben* 'in 1975' and *délelőtt tíz órakor* 'at ten o'clock in the morning' in (1). Third, extended

contexts make accessible inferences which lead to pragmatically acceptable assumptions. This is the case with utterances whose interpretation is not supported by time adverbials:

(45) Péter elment az iskolából.
Péter.nom left.indef.3sg the school.ela
'Péter left school.'

Co-composition and conceptual selection can be conceived of as interpretation mechanisms which do not only give the meanings of linguistic constructions (via amalgamation plus inference) but also help to infer meanings of their constituents (of which, then, meanings of constructions are composed). Let us take the first case. Meanings of underspecified predicates in utterances can be concretized on the basis of information encoded linguistically in contexts. This proceeds similarly to the disambiguation of lexically and grammatically ambiguous expressions through inferential processes in RT. Nonetheless, there is a substantial difference. With our examples we choose either of the meanings not from a list of meanings but from underspecified lexical-semantic representations ('move in some manner' and 'move in some manner to somewhere') as well as from meanings accessible on the conceptual level ('physical motion' and 'change in social status'). As to the above-mentioned second and third cases, meanings of the constituents *elmegy* 'leave' and *iskola* 'school' of a phrase in (45) are inferred on the basis of extended contexts which supply world knowledge. Even if such time adverbials as *1975-ben* 'in 1975' or *délelőtt tíz órakor* 'at ten o'clock in the morning' appear in an utterance (cf., e.g., (1a) or (1b)), there is no doubt that they specify the meanings of *iskola* 'school' and—by virtue of that specification—those of *elmegy* 'leave' inferentially but not by means of linguistic information encoded by themselves.

4.4. Interpretation mechanisms and relevance

In Bibok–Németh T. (2001) it is argued that a single general rational principle, the Cognitive Principle of Relevance, discussed in **4.1**, regulates the three ways in which one construes the meaning of utterances with implicit arguments and predicates as well as the utterance meaning

emerging through co-composition or conceptual selection.[21] Furthermore, the hierarchy of three interpretation mechanisms is regulated by the same principle, too (Bibok–Németh T. 2001). To avoid unnecessary processing efforts resulting in no suitable contextual effects, the adequate interpretation can be formed — for lack of any specific context — by the help of a lexical-semantic representation of the lexemes in question. If this does not lead to a relevant interpretation, then, for lack of any specific context outside the utterance under procedure, the immediate context should be taken into consideration. If this does not yield the pragmatically acceptable interpretation either, one should extend the context, making more processing efforts. In other words, the interpretation proceeds from less to more processing effort, i.e., from taking into consideration lexical-semantic representations to extending contexts. The interaction between lexical-semantic information and context of sufficient quantity indicates the functioning of the Cognitive Principle of Relevance.

In view of the hierarchy of interpretation procedures, it has to be stressed once more that, in the proposal I have just outlined, the indication of lack of special contexts plays a crucial role in the functioning of gradual interpretation. If the context is more specific from the beginning, it determines the utterance meaning to a higher degree. At the same time, this claim does not contradict what has been said in connection with TCS in section **2**: because of non-neutral contexts, representing metaphorical meanings requires the deletion or re-interpretation of previously established meaning components. If this does not necessarily hold for processing utterances, it is true for the representations corresponding the various kinds of meanings of linguistic expressions. Similarly, the distinction between primary and non-primary literal meanings, introduced also in section **2**, indicates the relation existing on the level of representations since it is not necessarily the case that all the primary meanings have to be processed to derive one non-primary meaning.

5. Conclusion

In the present paper I have outlined a conception of lexical pragmatics which critically amalgamates the views of Two-level Conceptual Semantics, Generative Lexicon Theory and Relevance Theory concerning word

[21] In all these cases one may think of the construction of explicit utterance meaning, i.e., that of explicatures.

meanings in utterances. As I have demonstrated in detail, lexical pragmatics has **more explanatory power** than each theory does separately. It has the following **main theses**.

Lexical pragmatics accepts—as a starting-point of the construction of word meanings in utterances—lexical-semantic representations which can be radically underspecified and allow for other methods of meaning description than componential analysis. All three theories investigated in order to elaborate on lexical pragmatics agree that a number of words do not encode full-fledged concepts. If, according to the argumentation in **4.2**, word meanings are not treated as wholes, then, for the manifestation of underspecificity, one uses the forms of representations put forward by TCS and GLT in favour of the systematic and economical handling of lexical units. Furthermore, in contextual interpretation, lexical pragmatics applies lexical-semantic representations in which, beside decomposition, a significant role is given to prototype semantics mentioned in connection with both TCS and RT. Not only are meaning structures of words non-uniform but also various methods of meaning description are necessary for various words. For example, componential analysis and prototype theory cannot be applied to logical words (*and, or, not, all* etc.) or to words having procedural meanings such as personal pronouns, pragmatic connectives and particles.

According to RT, the logical form yielded by decoding is to be enriched to get the proposition expressed by an utterance. Lexical pragmatics is of the opinion that as words have underspecified meaning representations, they also reach their full meanings in corresponding contexts through considerable pragmatic inference. Likewise, the contexts may help to find lexically required arguments and predicates which are, however, unrealized in utterances.

Inspired by RT, lexical pragmatics distinguishes between immediate and extended contexts. However, as has been pointed out in **4.3**, in lexical pragmatics they are meant as contexts inside and outside utterances, respectively, that words under interpretation can have.

Lexical pragmatics claims that there is a manner of utterance meaning construction which operates only on the basis of lexical-semantic representations. Hence, with respect to type coercion, co-composition and conceptual selection, the utterance meaning can be construed in three different ways: by means of lexical-semantic representations, immediate and extended contexts.

Furthermore, in the view of lexical pragmatics, the Cognitive Principle of Relevance regulates the construction of utterance meaning in one of three ways, the hierarchy of which is also influenced by the same principle. As has been claimed in **4.4**, interpretation proceeds from less to more processing effort, i.e., from taking into consideration lexical-semantic representations to extending contexts.

Finally, I hope that the proposed concept of lexical pragmatics will bring more results if it is applied to further empirical data and compared with other models of lexical pragmatics or words-in-use (Blutner 1998; Weigand 1998). The latter task would be extremely intriguing. Criticizing TCS and GLT, Blutner proposes an underspecification approach with a mechanism of contextual enrichment based on a neo-Gricean retreatment of conversational implicatures. Contrary to a formalized theory of lexical pragmatics, the preferred framework in Weigand (1998) is one that deals with natural, i.e., authentic, language use and for that the starting-point is words-in-use. However, a comprehensive comparison of how I conceive of lexical pragmatics with other strands is a task for future research.

References

Bárczi, Géza – László Országh (eds) 1959–1962. A magyar nyelv értelmező szótára [A defining dictionary of the Hungarian language] I–VII. Akadémiai Kiadó, Budapest.

Bibok, Károly 1998. A *hív* és a *küld* igék konceptuális szemantikai vizsgálata [A conceptual semantic investigation of the Hungarian verbs *hív* 'call' and *küld* 'send']. In: Magyar Nyelv 94 : 436–46.

Bibok, Károly 1999. A *könyv*-típusú szavak poliszémiája [Polysemy of the words of type *könyv* 'book']. In: Tamás Gecső (ed.): Poliszémia, homonímia [Polysemy, homonymy], 24–30. Tinta Könyvkiadó, Budapest.

Bibok, Károly 2000. Conceptual semantic investigations in Russian and Hungarian. In: Endre Lendvai (ed.): Applied Russian studies in Hungary, 15–32. Krónika Kiadó, Pécs.

Bibok, Károly 2002. *Vág*: egy elemzés a konceptuális differenciáció területén [*Vág* 'cut': an analysis in the field of conceptual differentiation]. In: Károly Bibok – István Ferincz – Mihály Kocsis (eds): Cirill és Metód példáját követve. . . : Tanulmányok H. Tóth Imre 70. születésnapjára [Following Cyril and Methodius's example: Festschrift for Imre H. Tóth on the occasion of his 70th birthday], 57–66. JATEPress, Szeged.

Bibok, Károly – Enikő Németh T. 2001. How the lexicon and context interact in the meaning construction of utterances. In: Németh T. – Bibok (2001b, 289–320).

Bierwisch, Manfred 1979. Wörtliche Bedeutung und eine pragmatische Gretchenfrage. In: Günther Grewendorf (ed.): Sprechakttheorie und Semantik, 119–48. Suhrkamp, Frankfurt/M.

Bierwisch, Manfred 1983a. Formal and lexical semantics. In: Manfred Bierwisch: Essays in the psychology of language (Linguistische Studien A 114), 61–99. ZISW, Berlin.

Bierwisch, Manfred 1983b. Semantische und konzeptuelle Repräsentation lexikalischer Einheiten. In: Rudolf Růžička – Wolfgang Motsch (eds): Untersuchungen zur Semantik (Studia grammatica 22), 61–99. Akademie-Verlag, Berlin.

Bierwisch, Manfred 1996. How much space gets into language? In: Paul Bloom – Mary A. Peterson – Lynn Nadel – Merrill F. Garrett (eds): Language and space, 31–76. MIT Press, Cambridge MA.

Bierwisch, Manfred 1997. Lexical information from a minimalist point of view. In: Chris Wilder – Hans-Martin Gärtner – Manfred Bierwisch (eds): The role of economy principles in linguistic theory (Studia grammatica 40), 227–66. Akademie Verlag, Berlin.

Blutner, Reinhard 1998. Lexical pragmatics. In: Journal of Semantics 15 : 115–62.

Carston, Robyn 2002. Thoughts and utterances: The pragmatics of explicit communication. Blackwell, Cambridge MA & Oxford.

Fodor, Jerry A. – Merrill F. Garrett – Edward C. T. Walker – Cornelia H. Parkes 1980. Against definitions. In: Cognition 8 : 263–367.

Fodor, Jerry A. – Ernie Lepore 1998. The emptiness of the lexicon: Reflections on James Pustejovsky's *The Generative Lexicon*. In: Linguistic Inquiry 29 : 269–88.

Gergely, György – Thomas G. Bever 1986. Related intuitions and the mental representation of causative verbs in adults and children. In: Cognition 23 : 211–77.

Grice, H. Paul 1975. Logic and conversation. In: Peter Cole – Jerry L. Morgan (eds): Syntax and semantics, vol. 3: Speech acts, 41–58. Academic Press, New York.

Grice, H. Paul 1978. Further notes on logic and conversation. In: Peter Cole (ed.): Syntax and semantics, vol. 9: Pragmatics, 113–28. Academic Press, New York.

Jackendoff, Ray 1990. Semantic structures. MIT Press, Cambridge MA.

Jackendoff, Ray 2002. Foundations of language: Brain, meaning, grammar, evolution. Oxford University Press, Oxford.

Kiefer, Ferenc 1995. Cognitive linguistics: A new paradigm? In: Linguistics in the Morning Calm 3 : 93–111.

Kiefer, Ferenc 2000. Jelentéselmélet [Semantic theory]. Corvina, Budapest.

Komlósy, András 1992. Régensek és vonzatok [Valence and government]. In: Ferenc Kiefer (ed.): Strukturális magyar nyelvtan 1. Mondattan [A structural grammar of Hungarian, vol. 1: Syntax], 299–527. Akadémiai Kiadó, Budapest.

Komlósy, András 2000. A műveltetés [Causativization]. In: Ferenc Kiefer (ed.): Strukturális magyar nyelvtan 3. Morfológia [A structural grammar of Hungarian, vol. 3: Morphology], 215–92. Akadémiai Kiadó, Budapest.

Levinson, Stephen C. 2000. Presumptive meanings: The theory of generalized conversational implicature. MIT Press, Cambridge MA.

Németh T., Enikő 2001. Implicit arguments in Hungarian: Manners of their occurrence and possibilities of their identification. In: István Kenesei (ed.): Argument structure in Hungarian, 113–56. Akadémiai Kiadó, Budapest.

Németh T., Enikő 2004. The principles of communicative language use. In: Acta Linguistica Hungarica 51 : 379–418.

Németh T., Enikő – Károly Bibok 2001a. Introduction: Towards the new linguistic discipline of lexical pragmatics. In: Németh T. – Bibok (2001b, 1–9).

Németh T., Enikő – Károly Bibok (eds) 2001b. Pragmatics and the flexibility of word meaning (Current Research in the Semantics/Pragmatics Interface 8). Elsevier, Amsterdam.

Pethő, Gergely 1998. A *száj* szó jelentésének kognitív szemantikai leírása [A cognitive semantic description of the meaning of the word *száj* 'mouth']. In: Folia Uralica Debreceniensia 5 : 133–202.

Pustejovsky, James 1991. The syntax of event structure. In: Cognition 41 : 47–81.

Pustejovsky, James 1995. The Generative Lexicon. MIT Press, Cambridge MA.

Pustejovsky, James 1998. Generativity and explanation in semantics: A reply to Fodor and Lepore. In: Linguistic Inquiry 29 : 289–311.

Pusztai, Ferenc (ed.) 2003. Magyar értelmező kéziszótár. 2. átdolgozott kiadás [A concise dictionary of definitions of Hungarian. 2nd, revised edition]. Akadémiai Kiadó, Budapest.

Song, Nam Sun 1998. Metaphor and metonymy. In: Robyn Carston – Seiji Uchida (eds): Relevance theory: Applications and implications, 87–104. Benjamins, Amsterdam.

Sperber, Dan – Deirdre Wilson 1995. Relevance: communication and cognition. Second edition. Blackwell, Cambridge MA & Oxford.

Sperber, Dan – Deirdre Wilson 1998. The mapping between the mental and the public lexicon. In: Peter Carruthers – Jill Boucher (eds): Language and thought: Interdisciplinary themes, 184–200. Cambridge University Press, Cambridge.

Taylor, John R. 1994. The two-level approach to meaning. In: Linguistische Berichte 149 : 3–26.

Trón, Viktor 2002. Metonímia [Metonymy]. In: László Kálmán – Viktor Trón – Károly Varasdi (eds): Lexikalista elméletek a nyelvészetben [Lexicalist theories in linguistics], 291–312. Tinta Könyvkiadó, Budapest.

Weigand, Edda (ed.) 1998. Contrastive lexical semantics. Amsterdam, Benjamins.

Wierzbicka, Anna 1996. Semantics: Primes and universals. Oxford University Press, Oxford.

Wilson, Deirdre – Dan Sperber 1993. Linguistic form and relevance. In: Lingua 90 : 1–25.

Wilson, Deirdre – Dan Sperber 2002. Truthfulness and relevance. In: Mind 111 : 583–632.

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