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From topology to verbal aspect: Strategic construal of *in* and *out* in English particle verbs

dissertation

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Zagreb, May 2009

Abbreviations

PV	particle verb
SLA	second language acquisition
L1	learners' first language
L2	learners' second language
CL	cognitive linguistics
TR	trajector
LM	landmark

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Acknowledgements

I thank my boss and co-advisor, professor Jelena Mihaljević Djigunović, for unselfish advice and freedom. I thank my advisor, professor Ricardo Maldonado Soto, for his fatherly wisdom, generous guidance, and all the doors he opened for me in Mexico and elsewhere. I thank my Mexican and Croatian students and research participants for their patience and devotion, and hours and days spent on filling in my research forms and tests. I thank my department colleagues for being true friends in need. Special thanks go to Stela, Mateusz and Jelena for their love and unconditional support. Finally, and most importantly, I thank my closest family and friends who encouraged me and tolerated my absences.

This work is dedicated to the most beloved ones who have missed me the most: Mladen and Barbara.
I truly regret my parents are not around anymore. They taught me school was important, and they would be proud today.

0. Introduction

Meanings are as elusive as a piece of wet soap in a bathtub.

Dwight Bolinger, 1975

Second language acquisition (SLA) theories have used insights from linguistics and psychology, as well as interdisciplines such as psycholinguistics, sociolinguistics and, in recent years, neurolinguistics. However, the interrelation between language and cognition and its systematic investigation became the focus of attention only after the rise of interest in individual differences in SLA, or, more specifically, learning strategies.

Learning strategies depend on various language internal and language external factors, and represent those cognitive, metacognitive[1], social, and affective processes that facilitate and accelerate language processing and language acquisition. Inadequate usage of certain strategies, on the other hand, often results in inefficient and slow language processing, and, ultimately, poorer language acquisition.

Cognitive linguistics views language as inseparable from other cognitive abilities, and it identifies semantic structure with conceptual structures shaped in particular ways common to a culture. Furthermore, linguistic meaning is characterized as subjective, which means that linguistic realization of cognitive processes activated as aspects of conceptual structure depends on what aspects of the objective scene a particular speaker wishes to include or exclude for his/her communicative purpose.

Thus, on the one hand, there are cognitive strategies employed in the process of L2 meaning construction, and they are researched as individual differences and defined as processes facilitating language processing, and, on the other hand, there is a body of cognitive linguistic research whose fundamental premise is that language is an experiential phenomenon intimately related to other cognitive processes, and that linguistic meaning is dynamic and subjective. Self-evident commonalities between these two research paradigms are cognitive processes linking language and cognition.

[1] In the process of SLA, metacognitive processes refer to metacognition that pertains to various aspects of conscious planning and organizing in the process of learning, e.g., planning related to what has been learned and how this knowledge may be employed to facilitate new learning.

The central aim of this dissertation is to investigate semantic determination, i.e. topological vs. lexical determination, and tackle the complexity of linguistic meaning by investigating strategic construal (i.e. meaning construal in L2) of *in* and *out* in English particle verbs. The term itself subsumes the basic framework assumed in the work – first, it suggests L2 processing data related to what we might call strategic thinking about linguistic meaning, and second, it implies the content of central concept in cognitive grammar, that is, dynamic and subjective construction of meaning pertaining to the human ability to understand and portray the same situation in alternate ways.[2] More specifically, it is our aim to investigate to what extent Croatian and Mexican learners of English are aware of the symbolic nature of language and specific contributions of grammatical elements that constitute the skeleton of conceptual structure. Their reasoning about particle-verb constructions is going to be examined in relation to several language internal and language external factors, and conclusions drawn are going to suggest predictable patterns in strategic construal, as well as idiosyncratic constructs expected in any semantic analysis that aims to take into account meaning as a complex and elusive cognitive construct.

The work is organized as follows: chapter one defines particle verbs, gives a short overview of previous research in the field, and briefly outlines the scope of the present study; chapter two discusses idiomaticity and compositionality as fundamental concepts related to the semantics of particle verbs, relates them to issues in L2, and ends by focusing on descriptions of particles; chapter three introduces research aims and hypotheses, the instrument used, the sample and research procedure, and the data; chapter four describes and discusses results; chapter five offers conclusions, tackles some theoretical and applied implications, and suggests potential avenues for further research.

[2] See Langacker (1987).

1. Particle-verb constructions

Particles should throw off their image as accessories to the verb. They are extremely powerful elements, semantically and syntactically overshadowing the verb.

Bert Cappelle, 2005

1.1. Particles and verbs

In this dissertation, particle verbs (PVs) are those verb-plus-particle combinations in which the particle patterns with the verb and not the following noun (see e.g. Lipka 1972; Fraser 1976; Lindner 1981; Talmy 2000; Biber et al. 2002; Dehé 2002; Cappelle 2002, 2005). Opting for the term particle verb instead of phrasal verb is largely motivated by the fact that the latter is somehow associated with the requirement of non-compositionality of meaning, which, to a considerable degree, contradicts the findings that are going to be presented in this work. Secondly, the particle itself is the focus of our attention, which has already been suggested by the non-iconic title of this section. However, the term phrasal verb is going to be used occasionally, primarily while quoting or paraphrasing other authors who used this particular term in their work.

The central condition for a word to be called a particle is that it is not being used as a preposition. In discussing patterns in representation of event structure, Talmy calls them satellites in order to "capture the commonality between such particles and comparable forms in other languages" (Talmy 2000: 103). The forms that customarily function as satellites partially overlap with a set of forms in another grammatical category. In English, satellites largely overlap with prepositions and they are used in the expressions of path. However, as Talmy points out, they need to be distinguished from prepositions. First, they do not have the same membership: *together, apart, away, back,* and *forth* are satellites that are never used as prepositions, whereas *of, at, from*, and *toward* are prepositions that never act as satellites. If a particular form serves both functions, it has different senses. For example, *to* is a preposition in *I went to the store,* but it is a satellite in *I came to* (Talmy 2000: 106). Furthermore, a satellite is in construction with the verb, whereas a preposition is in construction with an object nominal. Let us consider the following two examples:

(1) a. Many viewers wrote in (to the programme).
b. *Many viewers wrote in to (the programme).

In both sentences the satellite *in* is used metaphorically to build a path from the viewers to the programme that stands metonymically for the people involved in its production. If the nominal (*the programme*) is omitted, *to* needs to be omitted as well because it is in construction with it. However, *in*, as a satellite of *write*, does not need to be omitted. Typologically, there are two basic language groups in terms of how the conceptual structure is mapped onto syntactic structure: a) verb framed languages, and b) satellite framed languages (Talmy 2000: 221). Broadly speaking, the basic difference lies in whether the core schema is expressed by the main verb or by the satellite. The satellite can be either a bound affix or a free word. Thus, its category includes a variety of grammatical forms: English verb particles, German separable and inseparable verb prefixes, Russian verb prefixes, Chinese verb complements, etc. Verb-framed languages (Romance, Semitic, Japanese, Tamil, Bantu, etc.) map the core schema into the verb and the verb is called a framing verb. Satellite-framed languages (all Indo-European minus Romance, Finno-Ugric, Chinese, etc.) map the core schema onto the satellite (*ibid*.: 222). Let us consider Talmy's example contrasting English and Spanish:

(2) a. *The bottle floated out.*
b. *La botella salió flotando.*
'The bottle exited floating'

In (2a), the satellite *out* expresses the core schema (the path), whereas the verb *float* expresses the co-event. In the Spanish *La botella salió flotando*, the verb *salir* 'to exit' expresses the core schema, and the gerundive form *flotando* 'floating' expresses the co-event of manner. Apart from the motion event exemplified above, an important framing event related to English particles is temporal contouring (or aspect). According to ample linguistic evidence, temporal contouring is conceptually, and thus syntactically and lexically, analogical with motion. As stressed by Talmy (*ibid*.: 233), even though probably all languages express aspectual notions both with lexical verb and with

constituents adjoined to the verb, one or the other tends to predominate. English, for example, has a number of aspectual verbs borrowed from Romance languages (e.g. *enter*, *continue*, *terminate*), but it still seems to lean towards the satellite side. This tendency towards satellites is more than evident in, for example, verb particle constructions with *up* and *out*, which are customarily associated with perfective and completive aspect:

(3) a. *I filled up the drawer.*
b. *I emptied out the drawer.*
c. *I straightened up the room.*
d. *I straightened out the blanket.*
(adapted from Rice 1999: 228)

Another kind of framing event we are going to consider is an event of state change, or, more specifically – change in state of existence. This conceptual type is expressed in English by the phrases *go/put out of existence* (Talmy 2000: 242). It is exemplified in the following sentences:

(4) a. *The candle flickered/sputtered out.*
b. *The candle blew out.*
c. *I blew/waved/pinched the candle out.*
(taken from Talmy 2000: 243)

The concept of a flame or light being extinguished is expressed by the satellite *out*, while in Spanish, for example, it is expressed in the verb:

(5) a. Apagué la vela soplándola/de un soplido.
'I extinguished the candle [by] blowing-on it/with a blow'

The last type of framing event directly relevant for understanding the role of particles is an event of realization related to fulfillment. The verbal pattern consists of what Talmy calls a moot-fulfillment verb (ibid.: 264) and a fulfillment satellite, as in:

(6) a. The police hunted the fugitive for/*in three days (but they didn't catch him).

b. The police hunted the fugitive down in/*for five days (*but they didn't catch him).

(taken from Talmy *ibid*.: 262)

When used without a satellite, the verb *hunt* is moot regarding the outcome. It is atelic (unbounded) and it can be used with temporal expression with *for*. However, when used with *down* it codes that the additional intention was fulfilled. In this case, the whole event has telic (bounded) aspect and it can collocate with temporal expression with *in*.

1.1.1. Prefixes as satellites

As stressed by Tabakowska in her analysis of Polish, the "intimidating complexity" of the phenomenon of verbal prefixation results in its categories being placed in "the border area between two morphological processes, derivation and flexion" (2003: 155). When prefixes are associated with a particular lexical content, their meaning is considered relatively transparent and regular. However, when they are categorized as flexion, i.e. when they code aspect, their meaning is viewed as abstract and much less transparent. Tabakowska's attempt to give a systematic account of Polish prefixation initiates an important question of verbal prefixes being semantically related to prepositions. In order to substantiate the above mentioned semantic motivation, the author analyses and compares the usage of the preposition *za* and the prefix *–za*.[3] Having embraced the cognitive linguistic view of semantic structure, Tabakowska assumes that prefixes are never semantically empty or redundant, and even though the process of grammaticalization renders them semantically bleached, they tend to reveal their old meanings. For example, *za* is most frequently followed by a nominal (nom) in the instrumental (INSTR) or in the accusative (ACC) case:

(7) a. *(siedzieć) za drzewem*

[3] See also Janda's (1986) analysis of *-za* in Russian.

(to sit) behind tree:INST
'to sit behind the tree'

b. *(iść)* *za* *drzewo*
(to walk) beyond tree: ACC
'to walk beyond the tree'
(taken from Tabakowska *ibid*.: 159-160)

Sentence (7a) expresses a static relation and (7b) a dynamic one, which is lexicalized by the different case markers. Structures with the instrumental are used to locate a trajector (TR) behind or beyond a landmark (LM), whereas structures with the accusative are used to denote adlative motion. Both usage types have metaphorical extensions, such as:

(8) a. *(mieszkać)* *za* *granicą*
(live) over border: INSTR
'live abroad'

b. *(wyjechać)* *za* *granicę*
(go) over border: ACC
'go abroad'

c. *(schować coś)* *za* *murem*
(hide something) behind wall: INSTR
'(hide something) behind the wall'

d. *(schować się)* *za* *mur*
(hide oneself) behind wall: ACC
'(hide) behind the wall'
(taken from Tabakowska *ibid.*: 164)

The extension in (8a) and (8b) is defined as 'passability' – the LM is conceptualized as a boundary that separates the TR from the observer. The other extension, exemplified in (8c) and (8d), has been called 'the sense of curtain'. The LM "blocks the view of an area so that it cannot be seen by the observer" (Weinsberg 1973: 57 as cited in Tabakowska 2003). The correlates of these two extensions are the main to extensions from the

prototype of *–za*: the notion of passable borderline extends into an abstract boundary. This passage from non-being into being, or non-action into action, is related to the occurrence of *za-* with intransitive inchoative verbs:

(9)	*za-plonąć*	*za-kwitnąć*	*za-śpiewać*
	za-burn	*za*-blossom	*za*-sing
	'to begin burning'	'to begin blossoming'	'to begin singing'
	(taken from Tabakowska *ibid*.: 168)		

The same kind of extensions may be claimed for Croatian. For example, it is reasonable to assume that the following two examples are similar to (8d) and (9) respectively:

(10)	a. *(sakriti se)*	*za*	*brdo*
	(hide oneself)	behind	hill: ACC
	'(hide) behind the hill'		
	b. *za-paliti*	*za-blistati*	*za-pjevati*
	za-burn	*za*-shine	*za*-sing
	'to begin burning'	'to begin shining'	'to begin singing'

Even though traditional Croatian grammars do not describe prefixes in a semantically motivated manner, there are some recent attempts (see e.g. Silić and Panjković 2005) to make an initial step towards recognizing that prefixes are not "semantically empty". Let us consider the following meanings of the prefix *u-*, which appears to be related to the corresponding *u* 'in':

a) 'to put something into something else' (as in e.g. *umetnuti* 'put in', *unijeti* 'bring in', *ugraditi* 'fit in', etc.;
b) 'go in' and 'go into something' (as in e.g. *ući* 'go in', *uroniti* 'dive in', *uskočiti* 'jump in', *uploviti* 'sail in', etc.;
c) 'join' (as in e.g. *uključiti se* 'join (in)', *učlaniti se* 'join', 'become a member') (based on Silić and Pranjković 2005: 149, my translation).

It is this particular tendency towards satellites in the form of prefixes that is going to be discussed later in relation to language internal factors determining specific meaning construal exhibited by Croatian learners of English. We are going to speculate that the fact that Slavic languages, as opposed to Romance, often tend to express the core schema by the satellite facilitates learners' recognition of compositionality and the role of particle in English particle verb constructions.[4] On the other hand, we are going to suggest that this recognition is less frequent with Mexican learners of English since Spanish expresses the core schema by the main verb.

1.1.2. A few remarks on the nature of verbs

There is a specific group of verbs whose basicness makes them a particularly good material for idiomatic and grammaticalized usages. They have been called basic, light, delexical, high-frequency, easy, simple, semantically vague, schematic, etc., and they have been studied by a considerable number of authors, in various contexts, and with emphasis on different aspects of their nature and behaviour (see e.g. Norvig and Lakoff 1987; Wierzbicka 1988; Sweetser 1990; Heine et al. 1991; Sinclair 1991; Heine et al. 1993; Svorou 1993; Bybee et al. 1994; Svartvik and Ekedhal 1995; Lennon 1996; Newman 1996, 1997, 1998, 2004; Viberg 1996; Altenberg and Granger 2001).[5]

The most relevant aspect for this work is related to their role in the process of meaning construction in L2. Discussing high-frequency verbs, such as e.g. *put* and *take*, Lennon suggests that even though learners may have a "broad outline of word meaning", they still have rather unclear and imprecise lexical knowledge of polysemous items and constructs such as phrasal verbs (1996: 35). The lack of exposure (both classroom and out-of-classroom) to idiomatic expressions instantiating these schematic verbs results in a vague and imprecise knowledge of their meaning range and behaviour. As summarized by Altenberg and Granger, high-frequency verbs have several characteristics interesting in terms of cross-linguistic perspective (2001: 174):

[4] Croatian is certainly not a (proto)typical satellite-framed language. It actually exhibits both lexical and satellital strategy in expressing the core schema.

[5] In the central part of this dissertation, all schematic verbs will be called *light* verbs even though some are lighter than others and not all of them would be traditionally classified as *light*. Thus, the term *light* is used in a broader sense, and it is contrasted with *heavy* verbs, i.e. the verbs whose meaning is more specific and more transparent.

a) they express basic meanings and tend to dominate different semantic fields;
b) they have high-frequency equivalents in most languages;
c) they are characterized by a high degree of polysemy, caused by two kinds of meaning extensions:
- one universal tendency creating more general, abstract, delexicalized or grammaticalized uses,
- various language-specific tendencies resulting in specialized meanings, collocations, an idiomatic uses:
d) they tend to be problematic for foreign language learners.

Their specific nature results in two seemingly contradictory tendencies in L2 processing and meaning construction – overuse and underuse. The overuse has been attributed to their basicness, and the fact they are learnt early and widely used (see e.g. Hasselgren 1994), and the underuse has been discussed in relation to delexicalization process which renders them vague and superfluous when used with nouns as their object (as in e.g. *take a step* or *make a fortune*) (see Altenberg and Granger 2001).

In the course of this work, we are going to offer evidence that supports the above outlined characterization of these basic and schematic verbs. More specifically, we are going to show that, in the process of strategic construal and processing of English particle verbs, a semantically light verb tends to provide grounds for grammatical/topological determination by yielding under the semantic "strength" of the particle. On the other hand, a semantically heavier verb tends to override the contribution of the particle, which results in lexical determination.

1.2. Particle verbs and L2 research

Syntactic and semantic properties of particle verbs have been theoretically discussed and described by a considerable number of authors (see e.g. Bolinger 1971, Lipka 1972, Palmer 1974, Lindner 1981, Quirk et al. 1985, Brinton 1988, Gries 1999, Huddleston and Pullum 2002, Dehé 2002, Cappelle 2002, McIntyre 2002, and many others). Discussions offered in their work have elucidated various aspects of particle verb constructions and established a solid theoretical ground for further investigation into applied particle verb matters, especially into the complexity of their use in L2. For example, Sjöholm (1995)

investigated the use of particle verbs in two groups of English learners with different proficiency levels and different L1 (Swedish and Finnish). A number of variables related to their learning history were taken into account: the number of years of studying English, the quality and quantity of exposure to phrasal verbs, and the influence of a stay in a native environment. The results showed that a) Finnish-speaking learners used fewer phrasal verbs, and b) those learners who had spent some time abroad used non-literal phrasal verbs more frequently than those learners who had not gone through that kind of learning experience. Thus, it was concluded that both structural and semantic L1-L2 distance, and the nature and amount of exposure to L2 affect the learners' use of phrasal verbs.[6]

Even though there are no studies, at least to the author's knowledge, which are tightly related to the topic of this dissertation, there is a body of applied research that is directly relevant for some of our hypotheses. This body of research is concerned with the avoidance of phrasal verbs, and its relevance for this work is related to the factors attributed to the learners' avoidance of these constructions. There are three factors relevant for our central discussion: a) the nature of particle verbs (idiomaticity/semantic transparency), b) the significance of L2 proficiency, and c) the role of L1 in meaning construal.

In the rest of this section we give a brief account of the following studies: Dagut and Laufer (1985), Hulstijn and Marchena (1989), Liao and Fakuya (2004), and Waibel (2007).

Dagut and Laufer were first to tackle the issue of avoidance of phrasal verbs. They investigated Hebrew speaking learners of English, or more specifically, proficient university students of English whose L1 was Hebrew. Their hypothesis was that the participants would avoid active use of phrasal verbs even though they had tacit knowledge of their meaning. The results confirmed the hypothesis, and the authors attributed the process of avoidance to the fact that Hebrew does not have phrasal verbs. Consequently, learners tend to use a more familiar, one-word equivalent, and avoid seemingly complicated two-word English constructions. In sum, learners avoid using

[6] See also Hägglund (2001) for a study on over- and underuse of phrasal verbs in relation to particular registers, i.e. stylistic awareness, and a small-scale investigation by Yorio (1989) as a part of a larger investigation into learners' avoidance of idioms.

what they are not familiar with and what they do not entirely understand. It is also important to add that the use of phrasal verbs depended on their semantic nature, i.e. opaque, idiomatic verbs were used least often, literal phrasal verbs most frequently, and the use of aspectual (completive) comes between the two.[7] However, the semantic nature of the verbs was not considered as a factor affecting their avoidance.

Following Dagut and Laufer's conclusions, Hulstijn and Marchena (1989) hypothesized that learners with a Germanic L1 would not avoid phrasal verbs. Furthermore, they assumed that non-avoidance would correlate with learners' language proficiency. The results showed that a) intermediate Dutch learners used fewer phrasal verbs than advanced students, and b) both intermediate and advanced learners used more phrasal verbs than Hebrew learners from Hulstijn and Marchena's study.[8] Furthermore, the participants in the study used idiomatic phrasal verbs less frequently than those verbs whose meaning is less specialized and more literal. Finally, both intermediate and advanced learners avoided both idiomatic and aspectual verbs similar to their Dutch equivalents, which indicated that similarities between L1 and L2 may function as constraints rather than facilitators.

As opposed to previous researchers, Liao and Fukuya (2004) also concentrated on the semantics of the verbs, and their results showed the following: a) Chinese intermediate learners of English used fewer phrasal verbs than advanced learners, b) advanced learners used nearly as many phrasal verbs as native speakers, c) both group of learners used literal phrasal verbs more frequently than idiomatic ones, and d) intermediate learners used even fewer idiomatic verbs than advanced learners.

The most recent study on phrasal-verb avoidance is Waibel (2007). The empirical strength of this study lies in the fact that, instead of a battery of language tests, Waibel uses learner corpora to investigate the use of phrasal verbs. The author worked with the *International Corpus of Learner English* (*ICLE*) and carried out an in-depth analysis of the German and Italian components. The first question addressed was whether structural, semantic and contrastive difficulties of phrasal verbs are reflected in a general underuse of these verbs in learner writing (2007: 68). The subsequent question was whether

[7] For discussion on the types of phrasal verbs related to their idiomaticity, see section 2.1.
[8] Hulstijn and Marchena replicated Dagut and Laufer's study. Thus, their results were entirely comparable.

students resort to other linguistic means, such as Romance one-word equivalents. Naturally, L1 interference was an important factor in the analysis. Because of the fact that in Italian there are practically no categories corresponding to English phrasal verbs, it was reasonable to assume a very limited use of these verbs by Italian learners. On the other hand, the apparent similarity of English and German particle verb constructions was assumed to be a factor determining a more liberal use of phrasal verbs by German learners of English. The results showed the following:

a) Contrary to expectations, phrasal verbs are not "universally underused" (*ibid*.: 77) (German learners used more phrasal verbs than native speakers, Dutch and Polish learners used them as frequently as native students, and other groups (Finnish, Bulgarian, Swedish, Russian, French, Czech, Italian, Spanish) used fewer phrasal verbs than native students.

b) Reordered according to language families, the data showed that learners with a Germanic L1 performed like native students. Finnish learners and those with a Slavic L1 used around 300 phrasal-verb tokens less than native students, and learners with a Romance L1 used only about half the number of phrasal verbs as native students.

While discussing reasons for differences in performance in the three groups, the author stresses typological similarities and differences between English and other Germanic languages, and between English and Romance and Slavic languages. The fact that the extent of underuse is more prominent in the writing of students with a Romance L1 is explained by the lack of phrasal verbs or any similar verb types in French, Italian and Spanish. However, even though the author stresses that the same is the case with Slavic languages, and adds that verb aspect and aktionsart are marked by pre- or suffixation, she seems to neglect the fact that Slavic and Germanic languages typologically belong to the same group of languages in terms of how they map the core schema (see section 1.1.1). More specifically, it is reasonable to assume that the existence of a satellite, be it a bound affix or a free word, plays a very important role in meaning construal and use of particle-verb constructions. As suggested in section 1.1.1, aspectual meaning is just one of many semantic contributions made by prefixes as verb satellites. Thus, the fact that Slavic learners underuse phrasal verbs less than learners from a Romance background is not that surprising.

The results relating to German and Italian sub-corpora support the above mentioned results, i.e. when compared to native students, German learners used more and Italian learners fewer phrasal verbs in relation to the overall number of verbs (*ibid*.: 84). Furthermore, German students used more Germanic-based verbs whereas Italian students used more Romance-based verbs.[9]

In this section, we have selected and outlined several findings related to studies focusing on phrasal-verb avoidance. In the section that follows, we give a brief description of the scope of the present study in relation to the above mentioned findings. We also tackle several theoretical and applied ideas underlying our research rationale.

1.2.1. Scope of the present study

The scope of this work may be broadly defined in terms of the three aspects mentioned above, and the following theoretical and applied ideas:

a) both lexicon and grammar are meaningful, and grammar is symbolic (Langacker 1987, 1991);
b) language is intimately related to other cognitive processes (fundamental CL premise);
c) learning strategies mirror general cognitive processes constituting aspects of construal (Geld 2006, see section 3.1);
d) implicit/explicit knowledge contrast constitutes a continuum (Schmidt 1990, see section 2.1.1).

More specifically, our general aim subsumes the following:

a) a) demonstrate the extent to which the nature of particle verbs (i.e. the nature of their components) determines the predictability of the overall semantic determination in L2 (compositionality vs. non-compositionality, and lexical vs. topological/grammatical determination);
b) find evidence that factors affecting implicit knowledge of particle verbs (such as language proficiency and aspects of L1) play an equally important role in the area of explicit knowledge;

[9] The etymology of the verbs was checked in both learner corpora using the online version of the *Oxford English Dictionary* (*OED*) (*ibid*.: 84).

c) demonstrate that meaning construal in L2 (i.e. strategic construal) is comparable to meaning construal in L1;
d) investigate strategic construal of *in* and *out* in particle verbs, and examine L2 learners' ability to deal with notorious English idiomaticity;
e) find evidence that learners are aware of the symbolic nature of language.

2. Exploration of particle verbs

Rather than constituting a composite structure, the component structures correspond to certain facets of it, offering some degree of motivation for expressing the composite conception in the manner chosen.
Ronald W. Langacker, 2000

2.1. Idiomaticity and compositionality

Discussions on degrees of idiomaticity of English particle verbs, that is, categories denoting nuances from literal to figurative (or from transparent to opaque), have resulted in various classifications and labels related to the nature of their meaning (see e.g. Bolinger 1971; Makkai 1972; Lindner 1981; Cornell 1985; Dagut and Laufer 1985; Quirk et al. 1985; McPortland 1989; Laufer and Eliasson 1993; O' Dowd 1998; Celce-Murcia and Larsen-Freeman 1999; Dirven 2001; Liao and Fukuya 2004). Discussing English particle verbs, Dirven (2001: 5) points out that "it is not unlikely that each figurative phrasal verb has a story of its own and is, consequently, to be situated at a different point on the continuum from purely literal to purely idiomatic meanings." Such continuum is also suggested by Gries, who shows that certain meanings of particle verbs can be computed via conceptual metaphors and, thus, they tend to have "intermediate level of meaning between idiomatic and literal" (2003: 16). He explains, for example, the meaning of the verb *bring up* in *it has taken many years to bring the town up* as intermediate on the scale from literal to idiomatic because it is metaphorical and it can be "computed" on the basis of the conceptual metaphor (Lakoff and Johnson 1980) GOOD IS UP. He gives a parallel example in previous work where he compares three meanings of the particle verb *pick up* (Gries 1999: 127). Between the literal meaning of *pick up* as in *pick up a pencil* and its idiomatic sense as in *pick up a disease,* there is an intermediate case *pick up speed*. According to Gries, it is metaphorical because it means 'increase speed' and it is based on the metaphor MORE IS UP. It is claimed that the meaning 'get by chance' is more idiomatic than the previous one, but still not fully idiomatic because it can be computed. The metonymy ACTION STANDS FOR EFFECT OF ACTION is responsible for the construction obtaining the meaning 'acquire' and the notion of 'by chance' arises by implicature. The same is implied by Quirk et al. who classify phrasal verbs into non-idiomatic, semi-idiomatic, and idiomatic, but stress that "putting the verb

in the third category does not necessarily mean that its meaning is completely opaque" and that we can see "metaphorical appropriateness" in verbs such as *bring up* for 'educate' (1985: 1163).

In the realm of second language investigation and teaching, probably one of the most accepted and cited classifications of particle verbs in terms of their semantic nature is the one offered by Celce-Murcia and Larsen-Freeman (1999). They call them phrasal verbs and suggest the following three categories: literal, aspectual, and idiomatic. Literal phrasal verbs are usually combinations of a verb and a directional preposition, and their meaning is transparent (e.g. *sit down, hand out, carry out, fall down, stand up,* etc.). According to Jackendoff[10] (as cited in Celce-Murcia and Larsen-Freeman, *ibid.:* 432), in these combinations particles retain their prepositional meaning, and the result is "a phrasal verb whose meaning is fully compositional". Aspectual phrasal verbs are intermediate cases that are neither transparent nor fully idiomatic (e.g. set *up, take off, start out, carry on, sleep away*, *check over* etc.). They are further divided into semantic classes according to the contribution of the particle:

a) inceptive (to signal a beginning state), as in *take off* or *set out*;
b) continuative (to show that the action continues), as in *carry on* or *play along*;
c) continuative with the nuance that the activity is "heedless", as in *dance away* or *fritter away*;
d) continuative with the nuance that there is absence of purpose, as in *goof around* or *play round*;
e) continuative with the nuance that to it denotes the activity from beginning to end, as in *think through* or *sing through*;
f) iterative (to show repetition), as in *write over* or *think over*;
g) completive, where the particle turns an activity verb into an accomplishment, as in *burn down* or *wear out*;
h) completive, where the particle reinforces the sense of goal orientation in an accomplishment verb, as in *wind up* or *fade out*;
i) completive, where the particle adds durativity to a punctual achievement verb, as in *win over* or *catch up*.

[10] See Jackendoff (1997).

However, as pointed out by Celce-Murcia and Larsen-Freeman (*ibid.*: 433), even though aspectual particles signal certain meanings consistently, their pairing up with verbs is not free, e.g., *fade out* is acceptable, whereas **fade up* is not (see Brinton 1988: 182).[11] The third category are idiomatic phrasal verbs (e.g. *keep up*, *chew out, tune out, put off,* etc.), which are classified as such because it is claimed that it is difficult, if not impossible, to relate the meaning of the whole verb to the meaning of its parts. Nevertheless, Celce-Murcia and Larsen-Freeman agree with the authors, such as Stauffer (1996), who stress the fact that native speakers understand and coin novel phrasal verbs because of the knowledge of how their language works, which basically suggests that both lexical and grammatical elements are meaningful, and meaning extensions characteristic of phrasal verb constructions are not arbitrary but cognitively motivated.

In sum, categories related to phrasal verbs are various. Even the content of phrasal-verb dictionaries varies according to the type of meanings included: e.g., Sinclair and Moon (1989) and Cullen and Sargeant (1996) include both literal and idiomatic phrasal verbs, whereas Cowie and Mackin (1993) exclude the former. For the analytical purposes of the research that is going to be presented in this dissertation, it suffices to acknowledge that "being a phrasal verb is a matter of degree" (Bolinger 1971: 6), and that this gradience in meaning is going to be analyzed in terms of a "slightly revised version" of the principle of compositionality offered by Croft and Cruse (2004: 105): "The construed meaning of a complex expression is a compositional function of the construed meanings of its parts". This definition is based on the fundamental assumption that words do not have fixed meanings, and that the only way to tackle various aspects of meaning is to view it as subjective and dynamic, which lies in the core of Langacker's definition of construal, i.e. the ability to conceive and portray the same situation in alternate ways (1987, 1993b, 2000, and elsewhere).

Relevant parallelism related to gradient idiomaticity is found in the field of idioms. For example, Gibbs[12] claims that *chew the fat* and *kick the bucket* are much less analyzable than e.g. *pop the question* or *blow your stack* (1995: 100). It is in accordance with

[11] This particular class of verbs has been assigned especially diverse labels. For example, Quirk et al. (1985) call them semi-idiomatic, Dagut and Laufer (1985) completive, Laufer and Elliason (1993) semi-transparent phrasal verbs, and some others like e.g. Armstrong (2004), use various labels at the same time.

[12] See also Lakoff (1980), Fillmore, Kay and O'Connor (1988), Cacciari and Gluckserg (1990), Ruwet (1992), Gibbs (1992, 1993), Cacciari (1993), Glucksberg (1993) and others.

Langacker, who, criticizing the view that idioms are by definition opaque and cannot be analyzed[13], suggests that they should be seen as "a complex of semantic and symbolic relationships that have become conventionalized and have coalesced into an established configuration" (1987: 25). More specifically, even though there are some idioms[14] that are fully opaque, the meaning of most idioms can be analyzed, i.e., the meaning of their parts corresponds to particular facets of the meaning assigned to the whole expression. The same kind of gradience, as already suggested, is found in the field of particle-verb constructions. Specific contributions and relationships between verbs and particles result in a continuum of meanings starting from the transparent[15] and ending with the opaque. Thus, for example, we may claim that *fall down* is at the very beginning of the continuum because both the particle and the verb are used in a literal sense, *try out* is a bit further away towards idiomaticity because the particle is not used literally, and, finally, *make out* (in the sense 'flirt' or 'have sex') is quite close to the end of the continuum because neither of the components has any transparent relation to the meaning assigned to the construction.[16] However, the semantic complexity of particle verbs has largely been assigned to multiple senses of particles. It is suggested that non-directional meanings are metaphorical extensions from the basic image schemas, and that conceptual metaphors are applied in the process of meaning construal.

At this point it is important to stress that we believe that findings from both studies, the pre-research study (Geld 2006) and the study this dissertation is based on, support the idea that metaphorical thinking is indeed present as a cognitive process in the strategic construal of non-literal particle verbs, however, it does not necessarily mean that the

[13] See e.g. definitions of idioms offered by Katz and Postal (1963), Fraser (1970), Katz (1973), Chomsky (1980), Machonis (1985), van der Linden (1992), Nicolas (1995) as well as work by Bobrow and Bell (1973), Swinney and Cutler (1979) and Gibss (1980), as opposed to those where compositionality was recognized, as in Mitchell (1971), Makkai (197, 1973), Bolinger (1977), Nunberg (1978), Gazdar, Klein, Pullum, and Sag (1985), Cacciari and Tabossi (1988), Napoli (1988), Gibbs and Nayak (1989), Manaster-Rammer and Zadrozny (1992), Shaer (1992), Roeper (1993), van der Linden (1993), Wasow, Nunberg and Sag (1994), Geeraerts (1995), Gibbs (1995).

[14] We agree with Gibbs (1995) who claims that a major difficulty with idioms being treated as noncompositional is related to the fact that most scholars "tend to draw false generalizations from an analysis of a single example (e.g. *kick the bucket*) or from just a few idiomatic phrases" (1995: 99) and these are not representative of the many kinds of idioms in English.

[15] It is important to bare in mind that people have very different, often contradictory, understanding of the concept of literal meaning (see Gibbs 1995).

[16] See Cappelle for a two-way grid classifying these and other examples of particle verbs in terms of literal and idiomatic meanings assigned to their component parts (2005: 120).

activation of metaphor is constant. The results of the pre-research showed that learners of English think metaphorically while reasoning about particular meanings, which certainly points to the fact that metaphors are integral part of our cognition, but it cannot be used as a piece of evidence towards the belief that mappings from and into relevant domains happen each time the particle verb is actually used. This particular issue is related to the fundamental problem of mental representation of particular language forms and structures, and it has been theoretically discussed by, e.g., Sandra and Rice (1995), Croft (1998), Sandra (1998), Cappelle (2005), and empirically investigated by Rice, Sandra and Vanrespaille (1999), Rice (2003) and Kemmerer (2005). The central theoretical question is: "Can linguists identify the mental representations underlying particular linguistic facts of a language?" (Sandra 1998: 365). Do they have analytical tools to investigate whether two usages of a particular form are represented separately or together?[17] Both Croft (1998) and Sandra (1998) agree that linguists cannot answer this question in a definite way. They can only "determine the maximally abstract mental representation" (Croft as

[17] From psycholinguistic point of view, there are two basic groups of theories of semantic representation: those in which a word's meaning is represented in terms of its relation to other words, and those in which a word meaning is represented in terms of separable aspects of meaning (Vigliocco and Vinson 2007). Most psycholinguistic research has focused primarily on the representation of words referring to objects, and very few studies have addressed the semantic organization of words from other domains, such as events and properties. But, the issue that is particularly relevant for discussing idiomaticity in relation to human cognition is the issue of the organization of concrete vs. abstract words/concepts. Unfortunately, much of the psycholinguistic work has been almost exclusively concerned with concrete words/concepts (notable exceptions outside the field are Warrington and Shallice 1984, Franklin 1989, and Breedin et al. 1994). Generally, there are two basic proposals related to this issue: first, the idea developed by cognitive linguists, which implies that abstract knowledge originates in conceptual metaphors, and second, the idea that the meaning of abstract words is highly dependent upon language (as opposed to the meaning of concrete words). Abstract words are learned later and via language, whereas concepts corresponding to concrete things and events could develop in a manner related to innate predispositions and direct experience with the world (Vigliocco and Vinson 2007: 211). Furthermore, a number of conflicting claims have been made about the nature, acquisition and use of metaphors. The first conflict relates to the nature of metaphor (higher-order uses of language vs. basic process in language, as advocated by cognitive linguists). The second conflict inevitably grows out of the previous one and it is concerned with the acquisition of metaphor. If metaphor is a higher-order skill, then it is acquired later in life, whereas it should be acquired and produced at an early age if it is viewed as a basic process related to basic perception (see e.g. Leondar 1975, Billow 1981, MacKey 1986 in support of the latter view). Some authors, like Gardner et al. (1978), claim that children produce various kinds of metaphors but they cannot offer rationale for them. They also suggest that children's capacity changes through childhood, but they generally conclude that a child first learns literal meanings and only later begins to understand and use metaphor. On the other hand, Palmero (1986), after having conducted a series of experiments, found that children aged from 3 to 10 years understand metaphors if a context is appropriate to their age. For example, "my soul is an enchanted boat" may be understood properly only by an adult, whereas "my yellow plastic baseball bat is an ear of corn" may be easily understood by a child who already knows something about both corn and baseball (1986: 15).

cited in Sandra 1998: 367). Rice, Sandra and Vanrespaille (1999) have employed experimental techniques and could not find evidence that contemporary speakers of English and Dutch have access to the TIME IS SPACE metaphor that underlies temporal usages of prepositions like *in*. Furthermore, Rice (2003) analyzed longitudinal data obtained from the CHILDES corpus for two English-speaking children and provided evidence which suggest the following:

> …each child has his or her own starting point within a lexical category – one which may not be conceptually basic – with additional senses appearing in a piecemeal fashion, usually as a part of a favourite fixed expression rather than through stepwise semantic extension driven by processes such as metaphor and shematization. (Rice 2003: 243-244)

The results of the analysis showed that there are significant differences in usage patterns for the prepositions studied, and that each child has a "different point of entry" (2003: 272) into one of the nine lexical categories. There are also significant differences in terms of which sense emerges first – a basic spatial one or a more abstract one. Rice concludes that the findings suggest that semantic extension within a lexical category proceeds outwardly only partially from some basic, concrete sense, and that the child language evidence presented in the analysis are "inconclusive about any parallelisms which might obtain between developmental and diachronic extension" (2003: 273). It seems that the emergence of multiple senses is very much motivated by various non-semantic factors such as frequency of exposure to particular senses, lexical preferences, that is, a child's affinity for certain expressions, and contrastive pressures exerted by other lexical items.

Even though this dissertation is somewhat theoretically biased towards a cognitive linguistic framework, we cannot but agree with Rice who claims that "there is still a wide gap between CL theory and psychological claims about the nature of linguistic representation and processing" (2003: 247), and that "the gap between CL theory and psychological claims about lexical polysemy is especially notable with respect to the nature of language acquisition, either by children or second language users" (2003: 250). In the course of this work we are going to offer some evidence that, in the process of second language development, there are both language internal and language external

factors[18] which determine the construction of meaning and meaning extension within a complex lexical category. Thus, the territory of second language serves as a testing ground for cognitive linguistic hypotheses about the role of cognition in language development, and offers evidence that predictable patterns in meaning construal are necessarily coupled with rather specific and subjective semantic constructs.

Another significant contribution in bridging the gap between linguistic and non-linguistic methodologies are psycholinguistic experiments employed in various studies investigating metaphor in term of its role in idiom comprehension, and the issues discussed are very much relevant for the semantic analysis of particle verbs. Some studies started from the idea that idioms reflect coherent systems of metaphorical concepts in the way that they are motivated by particular conceptual metaphors (Kövecses 1986, Lakoff 1987). However, the ultimate aim is finding empirical evidence that metaphorical knowledge is indeed important in using and understanding idiomatic language. One way of investigating metaphorical thinking is by examining speakers' mental images for idioms (Gibbs and O'Brien 1990). Speakers are asked to consider a particular idiom, then try to form a mental image for it, and finally ask themselves questions related to specific aspects of the image. For example, they should imagine *spill the beans* and then answer questions such as How big is the container? What caused the beans to spill? etc.

[18] In the field of SLA, the central internal factor affecting the process of language acquisition is the learner's existing linguistic knowledge and the related language transfer. The role of transfer is customarily discussed in relation to one of the following: 1) language level (the level of the sound system, the level of syntax, etc.), 2) sociolinguistic factors (e.g. social context or the relationship between the speaker and the addressee, 3) degree of markedness of particular language features (some linguistic features are 'special' and some others are 'basic'), 4) prototypicality (the idea that learners treat some structures s potentially transferable and others as non-transferable), 5) language distance (the degree of actual difference between the two languages) and psychotypology (what learners think is the degree of difference between their native language and the target language), and 6) developmental factors. External factors pertain to social factors affecting L2 outcomes. The most common social factors are age, sex, social class, ethnicity/attitudes, L2 proficiency, and social contexts (natural and educational) (see Ellis 1994). Discussing and elaborating on the model of vocabulary acquisition based on the detection and exploitation of similarity between novel lexical input and prior lexical knowledge, i.e. the model representing the processing and storage mechanism named "parasitic learning strategy" (Hall, 1992), Hall and Ecke (2003) list the following factors conditioning CLI (cross-linguistic influence): 1) learner (psychotypology and metalingustic awareness, motivation, attitude, age, learning style and strategy use, and degree of anxiety), 2) learning (e.g. proficiency in each language fluency in each language, amount of exposure to each language, learning context, etc.), 3) language (e.g. typological distance, historical distance, degree of contact, etc.), 4) event (e.g. language mode, language control, style, task, etc.), and 5) word (e.g. degree of form similarity with competitors, number of form competitors, degree of frame (lemma) similarity with competitors, number of frame (lemma) competitors, degree of concept similarity with competitors, number of concept competitors, etc.).

Alternatively, speakers can be asked to describe verbally their mental images for idioms with similar figurative meanings. The basic assumption is that if people's tacit knowledge of idioms is structured by different conceptual metaphors, there should be significant consistency in participants' responses related to causes and consequences within their mental images evoked by idioms with similar interpretations. The data obtained by Gibbs and O'Brien (1990) support the assumption. Another way of investigating the role of metaphor is to demonstrate that people's knowledge of metaphorical links between different source and target domains provides the basis for the appropriate interpretation and use of idioms in discourse (Nayak and Gibbs 1990; Gibbs and Nayak 1991). In one study, participants were asked to give appropriateness ratings to different idioms in a particular context, for example, in a story that described a woman's anger in terms of heat in a pressurized container or in a story that described the woman's anger being related to a ferocious animal. As predicted, higher appropriateness ratings were given to *blew her stack* in the first story, whereas *bit his head off* was perceived as more appropriate in the second story. It was obvious that the readers' judgements were influenced by the coherence between the metaphorical information given in the text and the conceptual metaphor underlying an idiom's figurative meaning (Gibbs 1995). These findings are consistent with those by Geld (2006) who found evidence that learners of English employ and recognize metaphors while making sense of idiomatic meanings of particle verbs. They, just as Gibbs suggested for English speakers' knowledge of idioms (1995: 109), tacitly recognize that particular meanings are motivated by different kinds of conceptual knowledge. For example, learners describe image schemas that structure abstract concepts, which implies tacit recognition of such processes as abstraction, topological schematization, conceptual metaphors and metonymies (e.g. while explaining the linguistic motivation for various meanings of *in* in the particle verb *go in (for)* 'understand'/'enjoy'/'compete', they refer to the idea that the information goes into our heads and brains, that whatever is enjoyed can be viewed as a container we enter, or that a group of people can be seen as something we can go into). However, it does not mean, as already stressed in this chapter, that conceptual knowledge stored in the long-term memory is accessed every time speakers/learners encounter idiomatic phrases. We wish to suggest that second language learners' reasoning provides very specific insight into the

complexity of linguistics understanding.[19] Their ongoing negotiation of meaning demands a particular kind of processing which is characterized by frequent shifts from unconscious mental processes to reflective analysis of meaning (cf. Gibbs 1995: 110).[20] It is reasonable to assume that conscious mental processes, and thus, the activation of particular aspects of conceptual knowledge, are related to cognitive efforts that are made when smoothly running unconscious processing is interrupted by something new or yet unknown.[21] Defining focus on form in an otherwise meaning-focused classroom, Long and Robinson stress that focus on form "often consists of an occasional shift of attention to linguistic code features, by the teacher and/or one or more students, triggered by perceived problems in communication" (1998: 23). For instance, coming across the particle verb *take out* meaning 'kill', a learner likely to shift to a more conscious level of processing, and focus on form while trying to make sense of the particle verb construction, which, in this particular case, might activate relevant mappings from one conceptual domain into another. We may assume that meaning is always the learner's priority, but attending to form is a consistent 'backup procedure' if attending to meaning

[19] We should bear in mind that analysing the ways of how speakers/learners make sense of particular meanings provides different insights than do studies on immediate language comprehension.

[20] Naturally, what is being grasped and how depends on the nature of representation we are dealing with. Schematic representations are easily accessed to grasp a new idea or concept, whereas culturally determined metaphors are not always easily attainable (the universal capacity of metaphoric thinking should not be confused with the capacity of recognizing particular metaphors that are language specific). For example, the Croatian learners of English can recognize the meaning of *break the ice* only at the schematic level, i.e. they recognize that it means some kind of 'initialization', but they lack key elements pertaining to the underlying metaphor to grasp a more specific meaning.

[21] This issue is tightly related to capacity to process input and, more specifically, SLA debates over comprehensible input and Krashen's (1985) idea that requiring learners to process comprehensible input for meaning would automatically activate the language acquisition mechanism. Contrary to Krashen, subsequent approaches to processing (see e.g. Swain 1985, 1995; Van Patten 1990, 1996) explore other aspects of input, for example, how input can be processed most effectively. Van Patten (1990) showed that, under any kind of information processing pressure, learners attend to meaning, and they attend to form only if they have some spare processing capacity available. Furthemore, Schmidt (1990, 1994a, 2001), as opposed to Krashen, argues for the importance of *noticing* – learners need to direct attention to some aspects of the input. Schmidt (1990) argues that the explicit/implicit contrast forms a continuum and it is very difficult to draw the line to mark off conscious knowledge. Learners' limitations in terms of how much information they are able to process have been extensively addressed by McLaughlin (1980, 1987, 1990) and McLaughlin, Rossman ad McLeod (1983). It is suggested that learners are not able to attend to all of the information available in the input, so some information becomes the object of selective attention and some other is attended to peripherally. Their information-processing capacity is extended by routinization and restructuring, and this results in qualitative changes in the language they are acquiring, and the changes relate to both the way knowledge is represented in their minds and the strategies they employ. Such changes involve, for example, a shift from examplar-based to rule-based representations (e.g. the change from formulaic speech to rule analyses) (see Ellis 1994).

fails to provide an adequate interpretation (Hulstijn 1989).[22] In discussing mismatches between target language forms and learner-language forms, Doughty suggests that learners must have the capacity to hold a representation of the target language utterance in short term memory while executing cognitive comparisons, whereas a deeper semantic representation is held in long term memory. However, in case of any suspicion about the mismatch between stored knowledge and incoming linguistic evidence, whatever is stored in long term memory can be reactivated (2001: 18). On the other hand, such shifts are not necessary in cases of deeply entrenched meanings that are frequently encountered and/or used by L2 learners.

A similar kind of shift has been reported with native speakers processing the meaning of new coinages. Let us consider the following example from Armstrong (2004: 217):

(11) *After a day of travel, and an evening event at a bookshop, mostly I just feel like <u>vegging out</u> in my room, then I start to feel guilty*. (*Independent on Sunday*, 2 March 2003)

This particular sentence is likely to exert some cognitive effort even on the part of a native speaker of English. The process of decoding meaning will include detecting linguistic and non-linguistic contextual clues and dipping into various domains of (conceptual) knowledge. In other words, following the principle of compositionality mentioned at the beginning of this section (Croft and Cruse 2004), and taking into consideration the role of context, the meaning of a complex expression can be (re)defined as "the result of a construal process one of the inputs to which are the construals of its constituent parts" (Croft and Cruse 2004: 105). Thus, the process of constructing meaning of complex structures invariably involves the initial construal of the word meanings, and the construal of meaning of the whole expression.

In the section that follows, we are going to take a closer look at the nature of the composite structure in terms of its analyzability, and the conditions under which learners are likely allocate their attentional resources to either its meaning or form.

[22] See also Schmidt and Frota (1986) and Ellis (1993).

2.1.1. Analyzability, and meaning and form in SLA

Even though we have already stressed that our primary concern is the role of the particle, and despite our belief that, as Cappelle so vividly put it, the particle "forms the centre of gravity in verb-particle combinations" (2005: 459)[23], the contribution of the particle in particle verbs complexes is unique with each particular combination it enters. Thus, the meaning of the particle-verb construction is always a semantic synergy of both - the particle and the verb (see also 1.1.2).

Native speakers of English are tacitly aware of various 'rules' related to semantically possible combinations. For example, Latinate verbs do not enter the combinations (see e.g. Pinker 1989, Dixon 1991, Smollett 2002), particle-verb constructions are restricted to monosyllabic verbs, or bisyllabic verbs with initial stress (Fraser 1976), the number of particles is fixed and the number of resulting combinations open-ended, and the verbal element need not even pre-exist as an independent verb (Armstrong 2004, Cappelle 2005), the verbs are normally action or motion verbs (Bolinger 1971), etc. However, semantic subtleties of the resulting complexes are still very difficult to discern and describe. Meanings being put together are rich and dynamic, and the only plausible way to deal with them is to have "a semantics which is attempting to be cognitively realistic", and a semantics which "takes seriously the need for semantic categories to be humanly accessible and learnable" (Sweetser 1999: 133). Thus, even though cognitive semanticists no longer view meaning as a set of binary features, they still make great efforts to account for its compositional nature.[24] According to cognitive grammar (Langacker 1987, 1991, 2000a), "complex expressions exhibit only *partial compositionality*" (Langacker 2000a: 16, original emphasis). The meaning of a complex expression constitutes either an elaboration or an extension in relation to what is expected as compositional value. When a novel expression is used for the fist time, its meaning is constructed in given context. Conventionally determined import of the expression at best approximates its actual contextual understanding. Over the time, and through frequency of usage, it achieves the

[23] See also Bolinger (1971), Declerck (1976a, 1976b, 1977) and Talmy (1985, 1991, 2000).

[24] In the field of cognitive linguistics there are several fundamental theoretical constructs used in dealing with different aspects of compositionality: frames (see Fillmore 1985; Fillmore and Atkins 1992), active-zone phenomena (see Langacker 1991), and mental spaces (see Fauconnier 1985, 1997; Fauconnier and Sweetser 1996; Fauconnier and Turner 1996, 1998).

status of a lexical item. In the process of fixation, recurrent aspects of its meaning, including some of non-compositional origin "become entrenched and establish themselves as a part of what eventually emerges as its conventional linguistic value" (Langacker *ibid*.: 15). Thus, complex expressions are partially compositional because, on the one hand, the relationship between a composite structure and its components is not arbitrary, and, on the other hand, a composite structure is not constructed out of its components, nor it is fully predictable. Langacker concludes (*ibid*.: 16, original emphasis):

> Rather than *constituting* a composite structure, the component structures *correspond* to certain facets of it, offering some degree of *motivation* for expressing the composite conception in the manner chosen. And because the composite structure represents a distinct entity that is not in general reducible to its components, a construction is described as an assembly of symbolic structures.

For this dissertation, probably the most important dimension of lexical semantics is analyzability, that is, "the extent to which speakers are cognizant of the presence and the semantic contribution of component symbolic elements" (Langacker *ibid*.: 127). A novel expression is easily analyzable because a speaker manipulates the components in the process of constructing it. If we transfer this phenomenon from the first language domain, i.e. the native speaker's perspective, into the domain of second language, we shall notice considerable parallelism: when they come across a new construction, second language learners/speakers may attempt to analyze it in terms of its components, especially when individual components are already well entrenched in their L2, as it is frequently the case with particle verbs. However, L2 learners soon realize that the expected compositional meaning is far from a simple sum of meanings. They realize that components are not predetermined or fixed, and that complex structures are not put together in a strictly compositional manner. Over time, most learners abandon the idea of the building-block metaphor[25], which implies that smaller constituents are building blocks out of which larger constituents are constructed, and their expectations change. What follows roughly goes into two directions: a) learners either start believing that whatever happens in the process of constructing and making sense of meaning is too elusive to be captured and understood, so they stop thinking about meaning and attempt to store whatever they

[25] The building-block metaphor was used by Langacker (1987, 2000a) to portray the way linguists tend to think about morphological and syntactic composition.

encounter "intact" and in larger chunks, or b) although having rejected the idea of the building-block metaphor, they tacitly nurture the idea of linguistic motivation, and they attend to various aspects of meaning and form.[26] Naturally, their attention depends on various language internal and language external factors and their strategic meaning construal is deeply immersed in prior linguistic and world experience (see Figure 1).

The theoretical framework assumed in this dissertation, and schematically shown in Figure 1, suggests the following: first, language is an experiential phenomena and it is intimately related to other cognitive processes, such as, e.g., attention, comparison, perspective, and gestalt. In broader terms, the emergence of complex language representations results from "simple learning mechanisms operating in and across human systems of perception, motor action and cognition while exposed to language data in communicatively rich human social environment" (Ellis 2003).[27] Furthermore, meaning construal is dynamic and subjective, and construal operations (e.g. metonymy, metaphor, fictive motion, categorization, deixis, etc.) are viewed as instances of the abovementioned general cognitive processes as aspects of conceptual structure. Finally, strategic meaning construal and second language acquisition inevitably depend on whatever precedes. Being entangled with L1 and experiential knowledge of the world, L2 both relies on and mirrors various cognitive processes that constitute conceptual structure in L1. However, this specific cognitive state of L2 learners, burdened with prior linguistic knowledge and experience (MacWhinney 2001, 2006), functions also as a constraint in the process of language acquisition and strategic meaning construal.[28]

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[26] The abovementioned division of learners is based on the author's 15-year experience in teaching English as L2, and it was confirmed in the pre-research (Geld 2006) briefly described in this dissertation. The research showed that, by the time they started their final years of studies, a great majority of English majors had already abandoned the idea that language is constructed in a simple and linear way in which smaller parts are put together in an orderly fashion to produce larger constructions with predictable meanings. However, not all of them believe that "language makes sense". They view various aspects of meaning construction as arbitrary, and feel quite at a loss when facing numerous meaning extensions and elaborations.

[27] This view of language acquisition is shared by various constructivists, for example connectionists (Plunkett 1998; Christiansen, Chater and Seidenberg 1999; Christiansen and Chater 2001), functional linguists (Bates and MacWhinney 1981; MacWhinney and Bates 1989), emergentists (Elman, Bates, Johnson, Karmiloff- Smith, Parisi, and Plunkett 1996), cognitive linguists (Lakoff 1987, Langacker 1987, 1991; Ungerer and Schmidt 1996, Croft and Cruse 2004), constructivist child language researchers (Tomasello 1992, 1995, 2000; Slobin 1997) and many others.

[28] These constraints are especially evident in adult L2 learning (see e.g. Cutler 2001 and Doughty 2003).

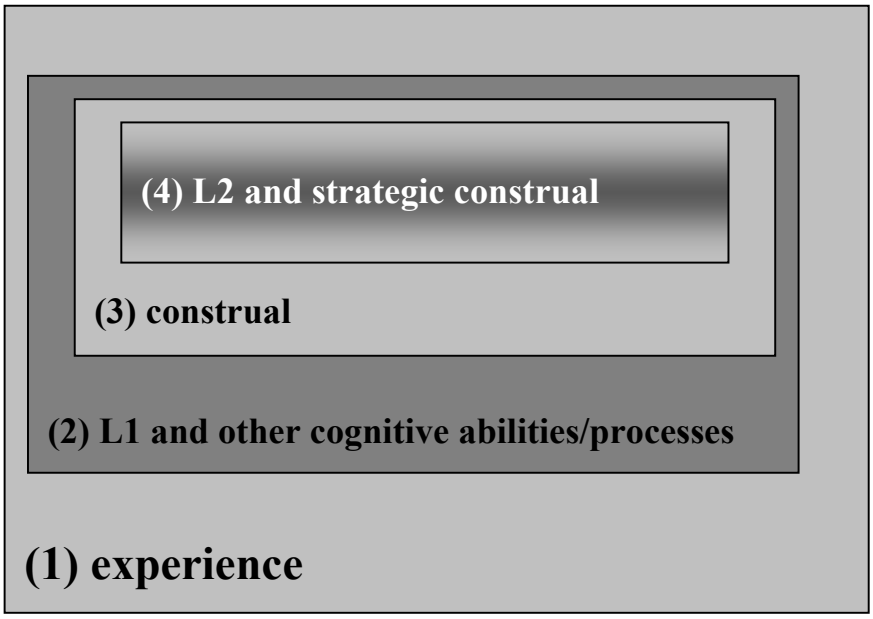

Figure 1. Integrated model of second language acquisition (Geld 2006: 108)

For example, Spanish learners of English, coming from a linguistic environment that maps core schema exclusively into the verb, are likely to encounter considerable problems while processing English particle verbs where the core schema is mapped onto the particle. However, if their attention shifts to form, it might activate aspects of conceptual structure, such as underlying image schemas or metaphorical mappings in cases of non-literal meanings, which, in turn, might facilitate input being processed and transformed into intake. Thus, specific language realizations inherited from L1 might constrain and filter L2 input, but, on the other hand, the activation of underlying cognitive processes, which have been proved to be common cross-linguistically, is likely to facilitate the recognition of how form encodes meaning.

Returning to the issue of how learners perceive language, we wish to suggest that all learners, irrespective of their inclination to view language either as an arbitrary or as a cognitively motivated system, process language and construct meaning by attending to both meaning and form. In other words, their attention is constant but it varies quantitatively and qualitatively. This line of thought is in accordance with theoretical linguistic constructs such as Langacker's analyzability (1987, 2000a) as well as with L2 research results on implicit vs. explicit knowledge, and their relation to consciousness

(see e.g. Hulstijn 1989 and Schmidt 1990, 1993a, 1993b, 1994a, 1994b, 1998, 2001, Doughty 2001). Describing native speaker's understanding of semantic structure and the concept of analyzability, Langacker discusses terms like "aware", "cognizant", and "recognize", and asks the question whether the claim that a speaker is "aware" or "cognizant" of the components within a composite structure implies that "these components are consciously recognized and attended to", and he proceeds by suggesting the following (1987: 459-460):

> There is nothing in the definition of analyzability (characterized at the level of cognitive events) that inherently restricts it to the domain of consciousness. Recognition is accomplished through acts of comparison, which are assumed to be ubiquitous to all domains and levels of cognitive processing.

If we relate this to the issue of the relationship between explicit and implicit knowledge in the process of learning second language, we cannot but agree with Schmidt (1990) who suggests that the explicit/implicit contrast represents a continuum and that there is no learning without 'noticing'. However, we wish to challenge his doubt that learning that occurs without learners being aware of learning plays a minor role in the field of second language (Schmidt 1998, 2001). Having embraced the insights from cognitive psychology, and, hence, assuming that various cognitive processes, such as attention or comparison, are present in all domains and levels of cognitive processing and construction of meaning, we may conclude that the abovementioned continuum is by itself sufficient to describe the nature of knowledge. In other words, in the process of learning, learners both consciously and subconsciously attend to various aspects of language and pass judgments that result in constant restructuring of their knowledge. Thus, if we wish to investigate the process of strategic construal, i.e. meaning construal in L2, it is legitimate to do so by shifting our learners attention to form and asking specific questions about meaning. Their conscious reasoning about composite wholes such as particle verbs might tell us a great deal about how components motivate and highlight selected facets of the composite meaning. Naturally, analyzability of composite wholes very much depends on the life they live as conventional units. They have an elaborate semantic value which lies in their extra-compositional specifications that correspond to facets of contextual meaning, and, in addition to that, they diverge from their specifications by extension or elaboration (Langacker 1987).

In the case of particle verbs, dramatically extended meanings often prevent the activation of component meanings along with the meaning of the whole. However, we wish to suggest that comprehension failures that are likely to occur while processing input containing these constructions tend to trigger focus on form which is characterized by specific (re)-allocations of attention that are determined by the semantic "weight" of their components.[29] Thus, we might expect focus on particles when they collocate with semantically light lexical parts, and, conversely, more focus on lexical parts when they are heavy verbs that are bound to have more substantial semantic contribution. In sum, our aim is to demonstrate that the level of activation of component meanings in L2 depends on both language internal and language external factors, the former primarily being related to the semantic vagueness of the verb employed in the construction, and consequently, more substantial and/or more frequent activation of the meaning of the particle. The section that follows gives a short overview of the role and meaning of *in* and *out,* which will be used as reference later while discussing the second group of research results, i.e., learners' strategic construal of particles.

2.2. How in and out structure space

Space and spatial relations have been of central importance for linguists for decades (see e.g. Fillmore 1968; Bennett 1975; Brugman 1981; Lindner 1981; Herskovits 1982; Talmy 1982, 1983, 2000a, 2000; Jackendoff 1983; Zubin and Svorou 1984; Langacker and Casad 1985; Langacker 1987; Lakoff 1987; Johnson 1987; Choi and Bowerman 1991; Vandeloise 1984, 1991, 1994; Bowerman 1996a, 1996b; Bowerman and Choi 2003, Tenbrink 2007). Introducing their volume on space in languages, Hickmann and Robert explain linguists' fascination with space by stressing the fact that space is a universal cognitive primitive that "conditions all of our experience" (2006: 1). This idea had been proposed and examined more than two decades earlier through Langacker's framework of "Space Grammar" (1982, 1987), and contributed through the work of scholars such as Susan Lindner (1981) who examined verb particle constructions with *out* and *up* and reinforced the important questions of meaningfulness of grammar and centrality of space

[29] For issues related to negotiation of form prompted by negotiation of meaning see e.g. Day et al. (1983), Brock et al. (1986), Skehan and Foster (2001), and Foster and Ohta (2005).

in human conceptualization, or, for example, Claudia Brugman with her work on the polysemy of *over* (1981). At the same time, Talmy (1982, 1983) published his linguistic space studies, and Lakoff and Johnson implicitly (1980), and Johnson (1987) and Lakoff (1987) explicitly proposed the notion of "image schema".

Introducing discussion on spatial structuring in language, Talmy (2000a, 2005) distinguishes two different subsystems of meaning-bearing forms: the "open-class" or "lexical" subsystem and the "closed class" or "grammatical" subsystem. The former contributes to conceptual content and the latter determines conceptual structure. The spatial schemas represented by closed-class forms fall into two groups: a) schemas that pertain to paths and sites, and b) schemas that pertain to the shape and disposition of objects. The former group includes forms in construction with a nominal (e.g. prepositions, noun affixes, prepositional complexes, etc.) and forms in construction with a verb (e.g. free verb satellites, bound verb satellites, deictic determiners and adverbs, etc.). In the sections that follow, we are going to examine the properties of English *in* and *out,* either as prepositions or verb satellites, in order to create a solid background for understanding their contribution in the process of meaning construction in English as L2. In addition to the descriptive work on how *in* and *out* structure physical space, we are going to present various examples of extended meanings that are customarily explained by being related to conceptual mappings from physical into abstract domains, or described in terms of experiential correlation and situated inferences. More specifically, we have chosen four central descriptions of *in* and *out* offered by the following authors: Herskovits (1982, 1988), Dewell (2005), Evans and Tyler (2004), Rudzka-Ostyn (2003) and Lindner (1981). The work by Herskovits was chosen because her detailed and much quoted account of *in* seemed like the best introduction to its complex topology. Dewell's contribution is a fresh account of the old issue of dynamicity of CONTAINMENT (Johnson 1987, Lakoff 1987). On the other hand, Evans and Tyler argue against the assumption that there are "dynamic" prepositions that denote motion. Instead, they propose that there are clear principles when a particular sense is conventionalized, i.e. instantiated in memory, and when it is a contextualized usage. Furthermore, their description of *in* gives a network of related senses indispensable for drawing parallels between meaning construals in L1 and L2. Lindner's account of *out* is an exhaustive analysis of its role in

PV constructions. It tackles various aspects of both topology and meaning extensions and offers a rich network of senses. Finally, with both *in* and *out*, summaries based on Rudzka-Ostyn's applied work on the role of particles in phrasal verbs are used instead of conclusions.

2.2.1. Herskovits on the topology of *in*

In her descriptive framework Herskovits (1982: 69) defines prepositional meanings in the following way:

> The prepositional meanings that I propose, which I call "ideal" or "core" meanings, have some analogies with prototypes, but are suited to the domain of spatial relations. The core meaning of a preposition is a geometrical "idea", from which all uses of that preposition derive by means of various "adaptations" and shifts. A core meaning is generally a relation between two or three "ideal" geometric objects (points, lines, surfaces, volumes, vectors, etc.). Such objects are mapped onto real objects by some process of idealization, or ***geometric imagination.*** (original emphasis)

Herskovits is careful to stress that the core meaning does not correspond to the best example of use, as it is the case with the prototype, but it is a "geometric abstraction" (*ibid*.: 70).[30] For *in,* she considers the following examples:

(12) *the milk is in the bowl*

(13) *the crack in the bowl*

(14) *the crack in the surface*

(15) *the bird in the three*

(16) *the chair in the corner*

(17) *the nail in the box*

(18) *the pear in the bowl*

(19) *the horse in the stable*

(20) *the horse in the field*

(21) *the gap in the border*

[30] For discussions on the notion of prototype see Rosch and Marvis (1975), Rosch (1978), Coman and Kay (1981), Lakoff (1986), Brown (1990), Tversky (1990) and Taylor (1995), as well as Langacker's idea about the importance of extension from a prototype as a principle of category structure, and the idea of schema, which represents an abstract characterization that is fully compatible with all the members of the category it defines (1987: 371).

In all of these locative constructions, *in* conveys an idea of inclusion or surrounding. In example (12), the milk is within the volume of containment defined by the bowl. In example (13), the crack is within what Herskovits calls "normal" volume of the bowl – that is "within the part of space the bowl would occupy if it had no crack" (*ibid.*: 73).

In example (14), one must imagine the surface as a layer in which the crack is included. In example (15), the including volume is the outline of the tree, whereas in example (16) the including volume is delimited by the implied walls on two sides, by two horizontal planes above and below, and the closure is completed by an imaginary surface whose location depends on the context.

It is stressed that example (17) is ambiguous because there are two geometric descriptions of the reference object that are equally plausible – the nail could be embedded into the walls of the box, or it could be contained within the box.

Example (18) is an example of "approximation" operating in the application of a core meaning (*ibid*.: 74, original emphasis). This particular example can describe a number of situations referring to partial or complete containment. The pear can be entirely contained in the volume of the bowl, it can be only partially contained if there are, e.g., two other pieces of fruit at the bottom of the bowl, and it can be at the top of a group of objects supported by the bowl, and, thus, not *in the bowl* in a strict sense.

Examples (19), (20) and (21) show how inclusion is generalized across dimensions. As opposed to three dimensions in (19), in (20) *in* is used with a two-dimensional object, whereas in (21) it is used with a one-dimensional one. Thus, in (20) the horse is on the top of the field, and, in fact, in the third dimension, whereas the gap in (21) is a part of associated geometric description. Another important semantic aspect of *in* is "tolerance" related to inclusion in an area (*ibid.*: 78, original emphasis). For example, *the bird in the field* can describe a bird flying over the field, in case it does not fly too high. In other words, certain vertical distances are simply negligible, which is again an instance of previously mentioned approximation.

Furthermore, a very strong point made by Herskovits is related to what she calls "extraordinary interpretations of locative constructions" (*ibid.*: 129). It is in accordance with the fundamental cognitive linguistic premise about the subjectivity of meaning,

which is grounded in and results from our knowledge of the world. We know that certain situations and certain state of affairs are ordinary or "normal", and that there are others where normal conditions do not hold. This knowledge[31] allows us to interpret locative constructions such as *the teapot is on the table* even if we know that the table is lying sideways, or *pears in the bowl* as a design motif on the inside of the bowl if we know that the speaker might be describing the appearance of an art object.

Generally speaking, in order for us to be able to encode and decode the meaning of locative constructions, we need to have knowledge relating to objects and knowledge of use types (*ibid*.: 135). For example, in order to interpret *the water in the bowl*, we need to be familiar with the basic fact that liquids take the shape of their containers, and the knowledge that other objects can penetrate the horizontal surface of liquids will help us opt for the use type "spatial object embedded in another", and, thus, enable the right interpretation of *the fish in the water*. Furthermore, we need to be familiar with various attributes assigned to particular kinds of objects, such as shape, size, characteristic orientation, function, typical geometric conceptualization, typical physical context, functionally salient parts, perceptually salient parts, etc. The attribute of typical geometric conceptualization, e.g., may be exemplified with unacceptability of **draw a line in the blackboard,* which is due to the fact that the use of *in* with areas requires a two-dimensional reference object that must be part of a surface divided into cells. Therefore, it is acceptable to say *in his room*, *in England* or, e.g., *in the margin* because all three objects are conceptualized as parts of a cell structure.

As already mentioned, the second kind of knowledge related to locatives is the knowledge of use types. The knowledge found in use types includes elements such as allowed spatial relation between the objects, selection restrictions, default assumptions, idiosyncratic figure/ground relation, etc. For instance, selection restrictions can be very specific: "object in container" permits *the man in the chair*, but sanctions **the man in the stool* because the seat needs to surround (at least to a certain extent) the body of the sitter.

Summarizing the properties of the three basic topological prepositions – *at, on* and *in* – the core meaning of *in* is defined as "inclusion of a geometric construct in a one-, two, or

[31] For in depth analysis of the role of encyclopaedic character of meaning in relation to linguistic realization of space and location, see Casad and Langacker (1985) and Casad (1988).

three-dimensional geometric construct". In addition to defining the core meaning, Herskovits lists the following use types (*ibid*.: 200-201):

a) "physical object contained in another" (e.g. *the milk in the glass*);
b) "spatial object embedded in another" (e.g. *the fish in the water*);
c) "physical object 'in the air'" (e.g. *the bird in the air*);
d) "physical object in outline of another, or of a group of objects" (e.g. *the bird in the tree*);
e) "spatial entity in part of space or environment" (e.g. *the best restaurant in the world*);
f) "spatial object in angular object" (e.g. *the chair in the corner*);
g) "spatial object part of another" (e.g. *the raisins in the cake*);
h) "person in clothing" (e.g. *a man in red hat*);
i) "physical object in area" (e.g. *in the field, in the margin*);
j) "physical object in a roadway" (e.g. *a truck in the road*);
k) "person in institution" (e.g. *the main in jail*);
l) "participant in institution" (e.g. *my son in college*).

She concludes by stressing that five of the above listed twelve types are idiomatic, and these are: "object in the air", "person in clothing", "object in a road", person in institution", and "person as participant in institution". All except the last one ("person as participant in institution") imply inclusion during an activity.

Finally, she tackles the question of pragmatic principles that "can be used to predict the applicable geometric descriptions and the acceptable shifts from the ideal meaning" (*ibid*.: 284). She calls them "near-principles" because they cannot be rigorously formulated and relates them to fundamental properties such as salience, relevance, typicality and tolerance. Salience is evident in metonymic shifts, as in examples where only the base of an object is in a particular area, but we still describe it as being "in an area". Whereas salience has to do with our perception of environment, relevance has to do with communicative goals. We cannot say **the milk on the bowl*, but *the milk in the bowl*, because restrictions are tied to our priorities, that is, even though the milk is contiguous with, and supported by the bowl, our priority is containment. On the other hand, we say *the dust on the bowl* because we are concerned with contact and its

consequences (*ibid*.: 287). Tolerance pertains to deviations related to an angle or a distance. For example, how distant can two objects be so that we can still say that one is *at* the other? The issue of tolerance is associated with various aspects of indeterminacies stemming either from the nature of objects or the nature of perception. However, tolerance is first and foremost dependent on what precisely the speaker wishes to communicate, that, is what aspects of the referent scene he/she chooses to be relevant. The last property discussed is typicality. It motivates pragmatic inferences, metonymies, and other linguistic choices (*ibid.:* 290). For example, metonymies stem from typical properties of particular objects. Typically, some objects sit on the ground, which prompts us and allows us to use this salient aspect of the scene, and this particular part of the object to represent the whole.

Let us finish by quoting Vandeloise[32] (1984: 32) who characterizes Herskovits' descriptive framework in the following way:

> …Herskovits' principal concerns are with compositionality and with separating motivation from convention. More precisely, she wishes to analyze those aspects of meaning that appear to be beyond the reach of compositional rules and see which of these are simply conventional and which can be explained in terms of principles of some generality, and then to formulate such principles.

In our opinion and from our perspective, the strongest aspect of this description lies in the fact that Herskovits suggests that apart from aspects of geometric conceptualization that mediate between perception and language, and contextual factors affecting the interpretation of *in*, there are other aspects of our knowledge that are likely to determine the process of meaning construction. However, we feel that the author was still rather uncomfortable with the idea that "every utterance takes its meaning from a background of assumptions that cannot all be made explicit" (Herskovits 1988: 295). Discussing a theory that would account for semantic complexities related to compositionality, she stresses that such a theory would need to cope with "the complex interplay of motivation and convention – in other words, the lack of a clear division of spatial expressions into idiomatic and regular ones" (ibid.: 1988: 296).

[32] For discussion on methodological issues related to the analyses of *in*, see Vandeloise (1994).

2.2.2. Dynamicity of the image schema of CONTAINMENT

In order to introduce the sense in which he is going to use the term "schema", Johnson[33] considers an instance of image-schematic structure emerging from our experience of containment (1987: 21). The pervasiveness of the experience of boundedness and containment is evident in practically all aspects of our contact with the world: we are perpetually enveloped and surrounded, and we constantly manipulate objects by placing them into containers.[34] For example, we get out of bed in the morning, go from one room into another, pour coffee into our favourite cup, place books in the bag, get into the car, go out of the garage, etc. In each of these cases there are "repeatable spatial and temporal organizations" (*ibid.:* 21). The most salient aspect of boundedness is that of three-dimensional containment. However, containment is present even if we eliminate one or two of these dimensions. According to Johnson, there are at least five entailments related to recurring experiential image-schematic structures for *in-out* orientation:

1) containment typically involves protection from, or resistance to, external forces;
2) containment limits and restricts forces within container;
3) the contained object gets a relative fixity of location;
4) the nature of such location implies that the contained object becomes either accessible or inaccessible;
5) containment is transitive, i.e., if B is *in* A, then whatever is *in* B is also *in* A.

Another central characteristic of CONTAINMENT is that its schematic structure is dynamic (*ibid*.: 29). Reanalyzing the meaning of *in* and dynamic patterns of containment, Dewell (2005: 371) stresses the importance of image-schema transformations as integral and/or extended parts of image-schematic structure itself, rather than independent processes. He introduces his discussion by tackling certain developmental issues pertaining to the conception of containment. For example, infants (Mandler 2005, as cited in Dewell 2005) seem to have a dynamic conception of containment with emphasis on the motion of going

[33] The nature of image schemas has been in the centre of (cognitive) linguists' interest ever since Lakoff (1987) and Johnson (1987) related them to the emergence of linguistic meaning. However, since our primary concern are basic aspects of containment, we shall limit our description to the fundamentals. For the most recent discussions on the character and role of image schemas see volume edited by Beate Hampe (2005).

[34] See also Lakoff's CONTAINER schema that consists of "a *boundary* distinguishing an *interior* from an *exterior*" and "defines the most basic distinction between IN and OUT" (1987: 271).

in and going out, which probably stems from their constant observation of motion, their routines related to self-motion, and their experience of being touched and moved by external forces. As opposed to adults, children seem to exhibit a certain attentive bias towards motion. Whereas in the adult semantic system static locations are considered to be more basic than motion events, children tend to use locational expressions for motion (Choi and Bowerman 1991). Even though literature implicitly suggests that the indication of successful acquisition of prepositions such as *in* and *on* is children's ability to use these prepositions in their spatial prepositional senses, there is no clear evidence that these particular uses are the earliest or the most frequent ones. Researchers like Tomasello (1987) and Hallan (2001) have found evidence that children's first uses of *in* and *on* are more like verb-particles than prepositions. Dewell concludes that children's first image schemas related to CONTAINMENT are likely to involve "activities and paths, with little clear differentiation between trajectors (TRs), landmarks (LMs) and relations, between paths and resulting states, or between space and time", whereas a notion like Lakoff's CONTAINER (1987) that is clearly bounded and separates an exterior from an interior may become a primitive only "in a sophisticated and linguistically influenced adult system" (2005: 374).

It is suggested that CONTAINMENT is a merger of two fundamental experiential patterns: ENTRY and ENCLOSURE. The former is a path that is repeatedly observed in cases where people insert various objects into open containers. The pattern looks like figure 2.

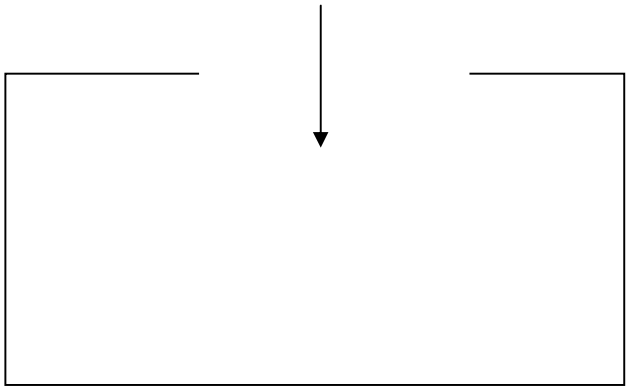

Figure 2. ENTRY (taken from Dewell 2005: 374)

Dewell is careful to stress that the schematic representation in Figure 1 is rather misleading. First of all, it does not indicate a variety of possible image-schema transformations. For example, we should imagine that the image rotates to allow different angles of inward approach. Furthermore, the two-dimensional image actually represents a tree-dimensional one, stemming from the experience of diversely shaped containers with openings varying in size. The pattern could also develop to involve distinct, separately profiled, TR, LM and path. Thus, we may have, e.g., a salient resulting state of the entry which profiles the TR in its final stage along the path (see Figure 3).

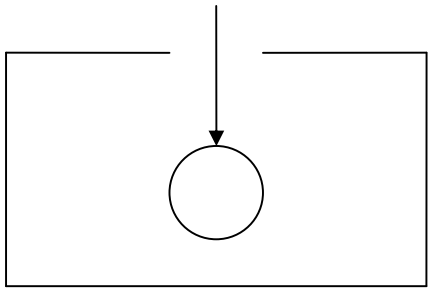

Figure 3. TR location resulting from ENTRY (taken from Dewell ibid.: 376)

Another aspect of ENTRY discussed is how it yields an image of a stative CONTAINMENT. Dewell claims that the only way to arrive at a basic schema for stative inclusion is by including the representation of conceptual motion of the TR. Following Langacker's (1987) and Talmy's (2000) discussions of fictive motion, he suggests that conceptual scanning processes are likely to become independent of the accompanying physical motion, and, as such, become an essential element not only for path schemas, but also for stative relations (2005: 376). After one has come to develop an image of resulting state (see Figure 3), it is possible to form a completely stationary image, separate and independent from a preceding path. The resulting image would be like that of Figure 4.

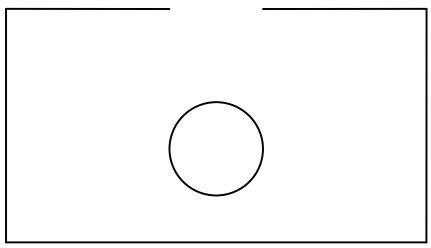

Figure 4. Pure inclusion (taken from Dewell ibid.: 377)

We agree with Dewell's conclusion that Figure 4 can only represent "a meaningless configuration of unrelated entities" (*ibid*.: 377), and that we tentatively accept it as a representation of containment because we are able to enrich it with a dynamic pattern of scanning. However, if we build an image by starting from an event schema like that in Figure 1, we start from spatiotemporal paths that serve as basis for abstracting locational relations, and allow for a learner/speaker to imagine various hypothetical possibilities, such as entry paths, acts of reaching into the LM, etc. The most abstract construal of a stative relation is the one involving an entirely conceptual search path, totally disassociated from any objective motion and conceived time, that moves inward until the TR has been located. The resulting image would be like that of Figure 5.

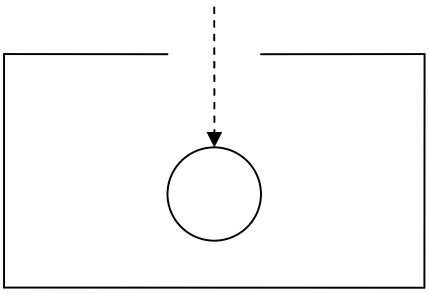

Figure 5. Stative inclusion based on ENTRY (taken from Dewell ibid.: 378)

The second experiential pattern of CONTAINMENT is ENCLOSURE. The experience of enveloping and enclosing is tremendously diverse. Some containers, for example, enclose by grasping or wrapping, and their relation to the contained varies in terms of how stationary/active they tend to be. Canonical containers are objects like boxes or jars that are stationary and with stable shapes. Less canonical containers, such as socks or canvas bags, involve both entry and active enveloping. Finally, there are objects that are not intrinsic containers, and they contain by bending or closing in on the object. Such active enclosing might be represented as in Figure 6.

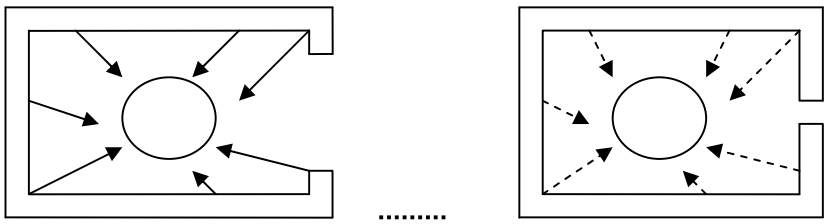

Figure 6. Active ENCLOSING (taken from Dewell ibid.: 380)

The container gradually moves towards the contained object until it entirely surrounds it. Thus, the container closes in on the object, and it closes in on itself. The image on the right represents the concluding phase.

Dewell concludes by saying that people experience most instances of containment through both ENTRY and ENCLOSING. The TR moves to enter the LM, and the LM moves to enclose the TR. The two motions converge, and the resulting schema would look something like Figure 7.

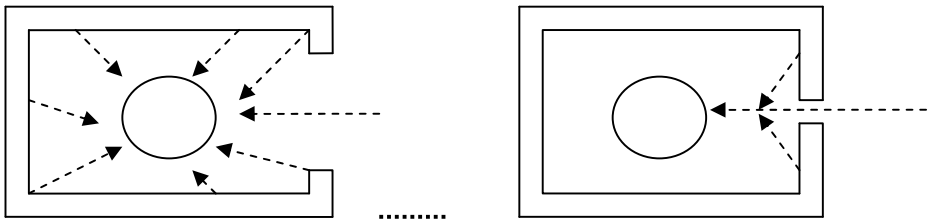

Figure 7. CONTAINMENT as ENTRY-ENCLOSING (taken from Dewell ibid.: 381)

It is important to stress that this kind of approach of representing containment allows dynamic description of stationary LMs. Thus, even canonical containers might be construed as LMs enclosing their TRs. Finally, and most importantly, it is grounded in "realistic containment events" and it assumes "an active role for the conceptualizer" *(ibid*.: 378).

2.2.3. Evans and Tyler on the polysemy of *in* and experiential correlation

Evans and Tyler discuss *in* in the context of meaning extension as a highly motivated process grounded in spatio-physical experience, as generally claimed by cognitive

linguists. They introduce their discussion on its polysemy with the following four examples (2004: 162):

(22) *The puppy is in the box.*
(23) *She is in love.*
(24) *Ok, class, put your chairs in a circle.*
(25) *She cut the pie in half.*

Even though the four uses seem to convey different meanings, they are claimed to be conventionally associated with the same lexeme. In other words, a canonical three-dimensional containment in (22), the state in (23), a boundary as shape in (24), and division in (25) are all related to *in.*

In order to explain the linguistic motivation behind such meaning extensions, they propose an experientialist view, which assumes that in our interaction with the environment, certain spatial relations have "non-trivial consequences", which results in "situated inferences" (*ibid.*: 163). Through usage, these inferences become conventionally associated with a particular lexical item. The process is known as pragmatic strengthening (Traugott 1989), and it is responsible for new meaning components being coupled with particular lexical forms. For example, containment customarily overlaps with location, that is, if a TR is within a container, they both change location when the container is moved. If a certain experientially-motivated inference occurs frequently, it is likely to become distinct from the original scene, as in the case of a conventionalized "state sense" for *in* (e.g. *she is in prison*) that has developed from a purely spatial configuration (*she is in the prison*) (Evans and Tyler 2004: 164). Evans and Tyler proceed by describing the organization of the semantic network of *in* in terms of a radial-like structure within which some senses are more closely related to the primary or sanctioning sense, whereas some others seem to be more related to other derived senses. More specifically, they propose *a proto-scene* – "a highly abstract representation of a recurring spatial configuration between two (or more) objects" (*ibid*.: 166), and wish to demonstrate how the proto-scene, through experience and situated inferences, leads to derived meanings which tend to become conventionalized via pragmatic strengthening.

The proto-scene of *in* has three fundamental elements: an interior, a boundary, and an exterior. It represents a spatial relation in which a TR is located within a LM, and it is functionally associated with containment. Its schematic representation is very much like the one representing pure inclusion and suggested by Dewell (Figure 4, section 2.2.2). The authors proceed by outlining functional implications related to containment, i.e., ways in which we interact with bounded LMs. They mention the following elements related to *in* (*ibid.*: 168-169):

a) containers, as bounded LMs, constrain and delimit movement of their TRs (e.g. a coffee cup containing coffee);
b) constraints can be understood as support to the TRs (e.g. a cut flower held in an upright position in a vase);
c) the opaqueness of boundaries can prevent us from seeing the TRs (e.g. garden walls protecting the garden within the walls);
d) bounded LMs can provide protection (e.g. jewellery in a jeweller's safe);
e) bounded LMs serve as goals (e.g. arriving home from work in order to rest, sleep, interact with family, i.e., the home is a bounded LM representing the *salient space* closely related to achieving goals).

In this way, Evans and Tyler support the claim made by Vandeloise who suggests that spatial relations should be explained in terms of both directional and functional relations (1984). He stresses that the preposition *in* can be properly described only by taking into account "the dynamic interaction between the container and the content" (1994: 172). Let us consider the following two examples taken from Vandeloise (1984, 1994):

(26) a. *The bulb is in the socket.*
b. **The bottle is in the cap.*

Whereas the socket exerts a force on the bulb and determines its position, the opposite occurs with the cap and the bottle. Thus, sentence in (26b) is unacceptable, even though the spatial relationship between the two objects is identical in both sentences, i.e., in both situations. Vandeloise reinforces this idea in his more recent work and adds that the socket and the bottle are the dominating objects and the bulb and the cap the dominated

objects. The preposition *in* can successfully lexicalize the relationship between a container and a content only if the figure/content corresponds to the dominated object, and the landmark/container corresponds to the dominating object. He concludes that "*in* does not admit the inversion of arguments" (2003: 397).

After discussing the proto-scene[35] for *in* and the functional nature of containment, Evans and Tyler tackle the question of non-canonical bounded landmarks (see section 2.2.1), such as fields and deserts, geographical areas (seas, countries, regions, etc.), atmospheric conditions, and, finally, collective individuals that can be conceived as a single bounded entity, as in (2004: 171):

(27) a. *The child couldn't be seen in the crowd.*
b. *The old cottage was located in the wood.*

They continue by developing their central discussion in which they attempt to demonstrate how our interaction with a variety of bounded landmarks results in a complex polysemy network of i*n.* They list five clusters of senses derived from the proto-scene: a) the location cluster, b) the vantage point is interior cluster, c) the vantage point is exterior cluster, d) the segmentation cluster, and e) reflexivity.

2.2.3.1. The location cluster

The location cluster is related to the fact that the location of a contained TR is determined by the location of the bounded LM. There are several senses resulting from this particular relationship:

1. The in Situ Sense – the TR remains co-located with the salient space designated by the LM for an extended period of time, and, by extension, the location suggests the purpose, as in the following examples[36]:

(28) a. *What are you in for?*
b. *He stayed in for the evening.*

[35] "Proto-scene" is the authors' term for "a central image schema".
[36] All examples (28-42) are taken from Evans and Tyler (2004).

In (28a) the location is a hospital or a prison, and (28b) expresses that the TR (*he*) remained located at home.

2. The State Sense – a particular LM is identified with the state experienced by the TR located in that LM, for example, a child (TR) enclosed in the parent's arms (LM) will customarily experience security. *In* is also used with states involving constraints on the TR, and situations conceptualized as such (e.g. *in a state of war/emergency/anarchy*).

3. The Activity Sense – a particular LM is identified with the activity taking place in that LM, i.e., the location metonymically stands for the activity, as in *(ibid*.: 76):

(29) *He is in the governor's office.*

Consequently, through pragmatic strengthening, the notion of an activity can be understood as a distinct meaning associated with *in*. Thus, *in* can designate a relation between a TR and an activity even when there is no overt association between the activity and a particular LM. For example:

(30) a. *He works in stocks and shares.*
b. *She is in graduate school.*

Evans and Tyler (2004: 177) are careful to stress the contrast between their approach and the conceptual metaphor approach proposed by Lakoff and Johnson (1980). They claim that it might be "misleading" to posit that a native speaker understands an abstract concept such as love (as in e.g. *She is in love*) as a bounded LM containing the TR. Following Grady's work on experiential correlation (1997), they propose that such uses of *in* are due to its complex semantic network and the relations it mediates between such concepts and a conventional State Sense.

4. The Means Sense – the correlation in experience between an activity and the means of accomplishing the activity results in a distinct Means Sense, as in:

(31) a. *She wrote in ink.*
b. *He spoke in Italian.*

Evans and Tyler conclude that this provides an illustration of the way in which a preposition, through the development of conventionalized senses and recursive experiences correlating with the derived senses, gives rise to further senses.

2.2.3.2. The vantage point is interior cluster

This cluster relates to the spatial scenes in which the vantage point is located within the spatial scene being conceptualized (Langacker 1987). Authors discuss the following senses related to this particular viewing arrangement:

5. The Perceptual Accessibility Sense – when the experiencer is located interior of the bounded LM, the limits of the LM usually coincide with the limits of perceptual accessibility. Let us consider the following examples:

(32) a. *I have it in view.*
b. *Thoreau always stayed in range f his mother's dinner bell.*

Both sentences exemplify the use of *in* denoting a relation between a TR and sense-perceptory availability with respect to a particular experiencer and his vantage point.

6. The In Favour Sense - it is suggested that this sense may derive from the correlation of gaining access to bounded LMs and the desirability of the activity taking place in the LM. In example (24) there is implicature that being in the bounded LM is to be in a favourable position:

(33) *He managed to get in the stadium, even though spaces were limited.*

7. The Arrival Sense – the experiencer is located within a bounded LM, and the TR located outside enters the LM:

(34) *The train is finally in.*

This specific meaning is also claimed to be present in particle verbs:

(35) *He reeled the fish in.*

The use of *in* relates to the notion of coming towards, and thus arrival.

2.2.3.3. The vantage point is exterior cluster

This cluster relates to the spatial scenes in which the vantage point, i.e. the experiencer, is located outside the spatial scene being conceptualized. The sense considered in this cluster is the following:

8. The Disappearance Sense – the nature of many containers is such that their boundaries obstruct the observer's view of the interior. This tight correlation between LMs with interiors and occlusion is responsible for the authors' proposal for a distinct disappearance sense, as in:

(36) a. *The wine quickly soaked in.*
b. *Angela rubbed in the lotion.*

2.2.3.4. The segmentation cluster

In this cluster, the most prominent aspect of bounded LMs is the notion of boundedness or segmentation. Bounded LMs separate and delimit the environment. In the example that follows, the TR is protected from external forces and separated from the rest of its environment:

(37) *The farmer put the seed in a sealed box for next year.*

There are two distinct senses discussed: the Shape as Boundary Sense and the Blockage Sense. Let us consider another example:

(38) *Ok, class, put your chairs in a circle.*

Sentence (38) exemplifies the Shape as Boundary Sense, wherein the TR represents part of a delimited configuration forming the shape of a circle. In example (39), the boundary prevents the TR from moving beyond the LM, and hence, the Blockage Sense.

(39) *Oxygen must be held in a sealed container.*

The notion of constraint has become conventionally associated with *in*, and the sense of blockage is present even when the TR is not contained by the LM, as in:

(40) *When I got back to the car, someone had boxed/blocked me in.*

Finally, there are cases where the LM is conceptualized as a passage blocked by the TR, as illustrated by example (41):

(41) *We couldn't move the car because a fallen tree was in the driveway.*

2.2.3.5. Reflexivity

Following Lindner's descriptive work on *out* and *up* (1981), Evans and Tyler suggest that *in* is a particle expressing reflexive meaning. The same entity is conceptualized as the TR and a covert LM, and the boundary of the LM moves inward. The result of this movement is that the LM loses its original shape and the interior stops to exist as interior space, as in:

(42) *The walls of the sandcastle fell in.*

The Reflexive Sense is often coupled with the sense of collapsing and, consequently, destruction of the LM.

In sum, with their analyses of *in*, Evans and Tyler succeeded in illustrating that the lexicon is systematically motivated, human conceptual system highly creative, and the way we experience the world makes spatio-physical interactions meaningful (2004: 188).

2.2.4. Rudzka-Ostyn on the meaning of *in* in phrasal verbs and compounds

Considering the general topic of this dissertation, it seems more than appropriate to finish our overview of the meaning and role of *in* by a brief summary based on the work by Rudzka-Ostyn (2003).

In order to vividly and systematically illustrate the meaning of phrasal verbs to learners of English as L2, she authored a textbook containing around 1.000 phrasal verbs and compounds used with 17 particles and/or prepositions. She groups phrasal verbs and compounds around particles, and employs conceptual metaphors to account for various meaning extensions.

According to Rudzka-Ostyn (*ibid*.: 48-49), the core meaning of *in* is "being inside or entering a container", as in the following examples:

(43) a. *The dentist noticed a big hole in two of his teeth.*
b. *This mad bloke punched me in the nose.*
c. The rain was leaking in through a crack in the roof.
d. *The film pulled in huge crowds for weeks on end.*

It is stressed that containers/surfaces can be cups, purses, buildings, gardens, lakes, towns, parts of human bodies, etc. The entity moves *into* such containers or is *inside* of them.

Extended meanings are described by elaborating the nature of containers. The following concrete and abstract phenomena are considered to be conceptualized as containers: atmospheric circumstances, time, sets and groups, activities, situations, relations and circumstances, and human psychological and physical states. Let us consider some of the examples given by Rudzka-Ostyn (*ibid*.: 51-57):

(44) a. *Some people enjoy sitting in the sun, others like to sit in the shade.*
b. *It happened in that particular year/'68/the past/the sixties.*
c. *She arranged the flowers in bunches of seven.*
d. *When you run your new car in, don't drive too fast o recklessly.*
e. *He managed to throw in a few comments here and there.*

In example (44a) *sun* and *shade* are viewed as containers. In (44b) whatever happened during these particular times is viewed as happening inside that container. Sentence (44c) exemplifies a *bunch* (e.g. a set or a group) being construed as a container. The particle verb in (44d) denotes driving one's car for the first thousand kilometres, and the activity is viewed as a container. In the last example, the flow of speech is understood as a container, and the use of *in* denotes entering this container.

2.2.5. Linder on *out*

In her detailed analysis of English verb particle constructions with *out* and *up,* Lindner (1981) gives priority to describing the tremendously rich contribution of particles. What follows is a short account of the meaning of *out* relevant for our discussion of strategic construal in chapter 4.

2.2.5.1. The prototypical

The prototypical meaning of *out* is paraphrased as "the removal or departure of one concrete object from within another object or place" (*ibid*.: 81), as in:

(45) *She went out.*

The verb, as a motion predicate, designates that its trajectory occupies a set of spatial points through time, whereas *out* designates which points are occupied (see Figure 8).

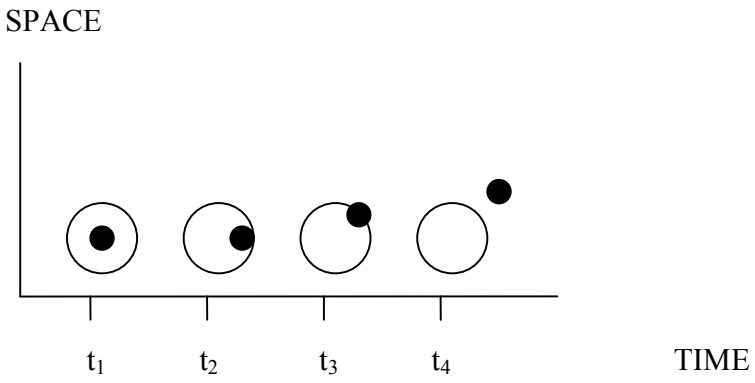

Figure 8. Schematic representation of go out (adapted from Lindner ibid.: 82)

Even though *out* itself is stative and has no temporal profile, it involves a (summarized) series of configurations, and there has to be some specification that it subsumes an initial and a final state when instantiated in time.

Following Lindner, while discussing the meaning of *out*, we are going to use the term TR to denote the TR of *out*, whether or not it is the overall TR or LM of the whole particle verb construction.[37]

2.2.5.2. The correlation between spatial and temporal points

As previously mentioned, the trajectors of verbs occupy certain points whereas *out* specifies which point/points are actually occupied. The occupation of spatial points may correlate to the occupation of temporal points where the instantiation of each spatial point corresponds to a discrete temporal point. In (45), repeated here as (46), the TR of *out* is small in relation to the path and it occupies only one point at a given moment:

(46) *She went out.*

However, in case of imperfective processes, the verb accommodates the TR that is large enough to occupy all points in the path, as in (47):

[37] For example, in *John threw the cat out*, there are two layers of figure-ground alignment: *cat* is the figure with respect to its trajectory, and, together with its trajectory, it is the ground against which *John*'s trajectory is defined. Thus, *John* is a trajector and *cat* is a subtrajector, and *out* further specifies the subtrajectory by designating the points occupied by *cat* relative to the LM of the *out* relation (*ibid.*: 64).

(47) *This tunnel goes out, I think.*

Another possibility is that the profile consists of only the last configuration in the series designated by *out*, as shown in Figure 9 and exemplified in (48).

(48) *He is out.*

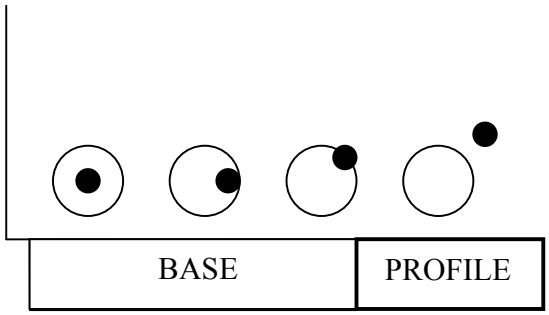

Figure 9. Schematic representation of be out (adapted from Lindner ibid.: 88)

In (48) *out* foregrounds a single (static) configuration, but the configuration is still defined relative to a series of others preceding it. Apart from being interpreted as motion, the base may be interpreted as a potential path, as in (49a) and (49b):

(49) a. *Keep him out.*
b. *My boss is out for the day.*

This kind of interpretation is unlikely in examples such as (50) because there is no possibility of the TR being *in* (unless it grows in a pot that is movable) and, thus, there is nothing corresponding to the base of *out*.

(50) **Keep the tree out!*

2.2.5.3. Variations in the path

As Lindner points out, even at the level of concrete objects moving in space, "there is considerable variation as to the kinds of *in* relation the trajector can bear to the LM, and variation in the kind of boundaries attributed to the LM" (*ibid*.: 89). Let us consider two canonical cases:

(51) a. *The cat clawed its was out (of the bag).*
b. *There is a fly in my soup - get it out!*

The only major difference between the LMs in these two examples is that the one in (51a) is hollow.
In less canonical cases, the LM's boundary does not surround the TR entirely, as in (52):

(52) *The cat was in the box and jumped out.*

Furthermore, the boundary may be neatly defined but only part of the TR may be in the LM, as in (53a), or the boundary may not be defined on all sides and it constitutes the place where the LM stops and something else begins, as in (53b).

(53) a. *Pluck the feather out.*
b. *The dog dug the bone out.*

Another possibility is for the LM to contain the TR among its subparts, or the two may be mass nouns mixed together, consider (54a) and (54b) respectively.

(54) a. *Wash this dirt out (of the handkerchief).*
b. *Strain out the orange pulp.*

The last four examples are some variants of the part-whole relation:

(55) a. *Cut out that picture and save it.*

b. *Weed out the ones we don't want.*

c. *Smooth out the wrinkles.*

d. *Bleach out the color.*

In (55d), the TR is not only relocated, but made nonexistent.

We shall finish with Lindner's abstract schema for all the examples given so far (see Figure 10).

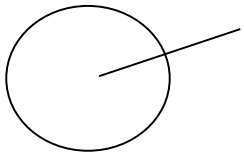

Figure 10. The prototypical out as an abstract schema (adapted from Lindner ibid.:102)

The diagram showed in Figure 6 is, at the same time, a pictorial diagram of the prototypical *out*, and a very abstract schema which is "neutral with respect to the degree of completeness of the LM boundary, the existence of the TR in the final configuration, whether or not the TR is part of the LM, whether or not the TR and LM are mass, plural or singular, etc." (*ibid*.: 102).

2.2.5.4. Meaning extensions

In this section, we briefly present examples and discuss the meaning extensions which are elaborately explained and described in Lindner's work. They will be dealt with in the following order:

1) *out* is "distinguishing, choosing, and rejecting";
2) LM is some abstract, coherent complex of information;
3) LM is a restriction or obligation;
4) LM is abstract neighbourhood of possession;
5) LM is privacy;
6) LM is an individual;
7) *out* is "change from hiddenness to accessibility;
8) *out* is "change from accessibility to inaccessibility".

The first above-listed meaning extension refers to *out* denoting cognitive processes of distinguishing, choosing, and rejecting objects from among others, as in:

(56) a. *The professor singled him out for criticism.*
b. *Having heard his story, we must sift out the facts.*

The second meaning is based on the idea that we perceive information, conditions, events, etc., as bounded objects. Thus, we can say:

(57) a. *There are flaws in this design; I want you to engineer them out.*
b. *When I was in trouble, my family bailed me out.*

As stressed by Lindner (*ibid.*: 104), a concrete LM customarily coincides with a more abstract LM, and *out* stands for some kind of official discharge from commitments related to established institutions or behaviour. This is evident in particle verbs such as: *check out*, *sign out*, *flunk out*, *drop out*, etc.

The third meaning is explained in terms of constraints and restrictions related to the notion of a boundary. Thus, boundaries are great foundations for meaning extensions involving responsibilities, promises, obligations, etc., as in, for example, *back out*, *bail out*, *skip out*, or *weasel out*.

The meaning that follows suggests that possession is construed as an abstract neighbourhood around a person. Let us consider the following examples:

(58) a. *Did you land out all your books?*
b. *He bought a bunch of trucks and rented them out.*
c. *He rents out his house at the beach.*
d. *They contract out/farm out the smaller jobs.*

Whereas in (58a) and (58b) there is displacement in space, (58c) does not involve any physical movement on the part of the TR of *out* (the house), and in (58d) it is the responsibility of doing a job that is being transferred.

Similarly, the LM can be privacy, and if something leaves its boundary, it is available to the public, as in:

(59) a. *Get the newspaper out on time.*
b. *The new play came out on Broadway.*

Another important LM of *out* is an individual, a person who has private thoughts and feelings. If these thoughts and feelings are shared with another person, they "leave" the owner, as in:

(60) a. *He threw out a few suggestions for us to consider.*
b. *He trotted out his standard arguments.*

The last two meanings discussed by Lindner are meanings involving change from either hiddenness to accessibility, or from inaccessibility to accessibility.
The former is related to the non-transparency of LMs. They hide their contents and make them invisible to the outside observer. Thus, to remove a TR from within the LM, is to reveal it to the observer (i.e. the viewer whose viewpoint is on the outside). By extension, being visible implies being knowable, attainable, etc. The LM is often only vaguely specified and it frequently refers to states denoting obscurity rather than concrete objects. Let us consider the following three examples:

(61) a. *The great detective was able to sniff out the criminal.*
b. *It came out that he had cheated.*
c. *I'm seeking out the enemy.*

In (61a) the TR is an object hidden on purpose, whereas in (61b) the TR is a secret that has been revealed. In (61c) *out* denotes that the subject wants the TR to be in the range of his/her view, and, thus, exposed to the eye of public.[38]

[38] Lindner stresses that her interpretation of *seek out* differs from the one offered by Fraser (1976) who claims that in this particular construction *out* is redundant.

The verb *seek out* codes both the action of looking for something and the resultant change of state. This change of state includes also the more specific meaning 'change of state from non-visible to visible', as in:

(62) a. *The rash broke out.*
b. *The stars came out one by one.*

Furthermore, an object may be invisible because of the nature of its background, so verbs used to distinguish items from a group may also be used to distinguish particular elements from their background, as in (63a) and (63b).

(63) a. *That shirt's color really brings out his eyes.*
b. *He really stands out in the crowd.*

Further meaning extensions related to the change from hiddenness to accessibility originate in conceptual links between seeing and understanding. These links are evident in the following examples:

(64) a. *Praise brings out the best in him.*
b. *He pointed out the flaws in the proposal.*
c. *During the discussion, Fred brought out some interesting facts.*

In sum, one of the most important semantic aspects of *out* is that it codes hiddenness. Concrete and abstracts entities are hidden from the observer's view, and it is *out* that makes them capable of being directly observed, revealed, or known.
Finally, the viewer can make information known to himself/herself by inferring from the information he/she already knows. In (65a) the TR of *out* is a missing piece of information, in (65b) the TR is a noun denoting a complex of information to be inferred, and in (65c) the TR denotes a complex of information inferred from the existing facts.

(65) a. *Can you make out who is standing over there?*

b. *Figure out the solution.*

c. *Work out a paper outline.*

The last subcategory related to the information becoming known is the situation in which we are assessing the TR's potential, as in:

(66) a. *Test out a hypothesis.*

b. *Try out a new recipe.*

As we have seen, unknown information exists as potentially known. It is implicitly located in incomplete information, observations, etc. until some action takes place and extracts it. Resultant states may also be considered implicit and potential, but the viewer does not necessarily need to extract them to make them known. They may evolve on their own, as in:

(67) a. *It turned out that Fred could go and I had to stay.*

b. *I hope this matter will come out right.*

The last meaning we are going to discuss is change from accessibility to inaccessibility, that is, the reverse to what we have just outlined. The examples that follow illustrate the cases where the TR becomes inaccessible to perception:

(68) a. *Drown out the music.*

b. *Black out the house (so it can't be seen).*

c. *Put out the fire.*

d. *The lights went out; did you turn them out?*

Then, there are various nonfunctional states coded by *out*:

(69) a. *His engine blew out/conked out.*

b. *The generators crapped out under the workload.*

c. *The part was rusted out.*
d. *Don't stretch the elastic out.*
e. *She passed out/crapped out.*
f. *He blanked out/blacked out.*
g. *I'm just spacing out.*

The last three examples refer to human nonfunctioning, more specifically, in (70a) nonfunctioning includes becoming unconscious, in (70b) lapsing, in (70c) being or becoming free and unoccupied with anything.
An extreme case of nonfunction is nonexistence, as in:

(70) a. *The sound faded out quickly.*
b. *Ring out the old year.*
c. *Close out your bank account.*

Furthermore, the LM may represent the viewer's desire, possession or consideration, from which the TR is expelled:

(71) a. *Throw out / toss out that garbage.*
b. *They laughed out his ideas.*
c. *They ruled out that possibility.*

It may also represent an experience the viewer wishes to participate in, as in:

(72) a. *Fred sure lost out by not speaking up in time.*
b. *I'd hate to miss out on an opportunity like that.*

Finally, the LM is the canonical human state, i.e. states like happiness and solidarity. Thus, the opposite states, such as being depressed or angry, are *out*. Let us consider the following examples:

(73) a. *That remark put him out.*
b. *The two friends fell out over it.*

Similar examples are:

(74) a. *He just freaked out / flipped out.*
b. *The test blew me out.*
c. *Don't panic out.*

The examples in (74) represent cases in which the LM represents aspects of the above mentioned canonical human state, such as the state of being normal, conscious or controlled.
When it collocates with an action verb, *out* frequently means 'going beyond the normal range of intensity or duration':

(75) a. *Let's go pork out / pig out / snout out / munch out!*
b. *I am going to the library and nerd out.*

In (75a) all the particle verbs mean 'indulge in food excessively', and in (75b) the verb means 'immerse oneself totally in studying'.

2.2.5.5. Viewer-defined regions

Lindner summarizes all the above described meanings of *out* by emphasizing the importance of viewpoint and its consistency in the two regions illustrated in Figure 11.

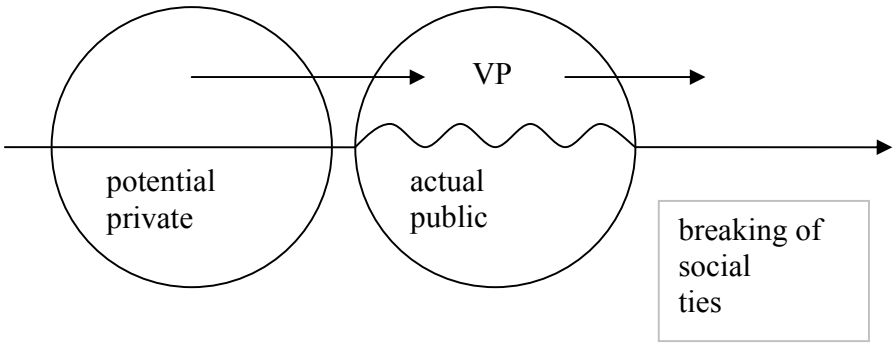

Figure 11. Viewer-defined regions (adapted from Lindner ibid.: 121)

The model shows an evolutionary cycle in which the two regions serve as LMs for *out*. This kind of understanding and representation of *out* accounts for its semantic subtleties and meaningfulness, as opposed to the traditional view of particles as meaningless and/or redundant. The sentences that follow exemplify the meanings explained by the above given model:

(76) a. *I may throw out a suggestion which you may the throw out as a foolish one.*
b. *I may pick out the god applicants or weed out the bad ones.*
c. *The stars may come out and yet the lights will go out.*
d. *I may smoke out the criminal from where he is hiding out.*

2.2.5.6. Reflexivity

Reflexive *out* profiles the change of shape of a single object, as opposed to other versions of *out* that profile configurations between two concrete or abstract objects. Let us consider the following example and the accompanying diagram:

(77) *Roll out the cookie dough.*

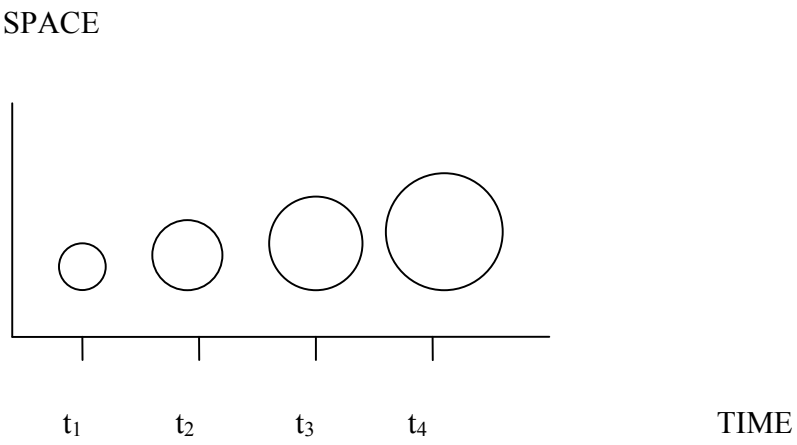

Figure 12. Reflexive out (taken from Lindner ibid.: 123)

Out profiles the change of shape, that is, the change from some initial form to a final form that occupies a greater area than the initial one. The LM is identified with the first stage in time, and the TR, rather than crossing a boundary to become *out*, it becomes out when "its outline broadcasts away from its initial LM boundary" (Lindner *ibid.*: 124) (see also Figure 13).[39]

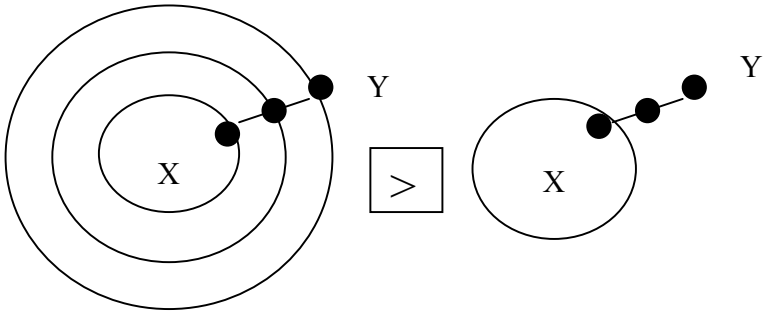

Figure 13. Progressive enlargement of the TR (adapted from Lindner ibid.: 124)

There are several versions of reflexive out, and they vary according to whether the TR is viewed as one-, two-, or three-dimensional. When the TR is one-dimensional, what is coded is the object's increase in length:

[39] What this particular analysis fails to stress is that it is the verb that codes the original position of the object, and *out* codes the motion towards the extension of the rolled object.

(78) a. *Lengthen out your stride.*
b. *Grow out your hair so you can have it styled.*

The following two sentences exemplify a version of out which profiles a TR's extension along two dimensions:

(79) a. *Flatten out the dough.*
b. *The housing development has sprawled out all over the valley.*

The version of *out* in (80) profiles a TR's extension in three dimensions:

(80) *It ballooned / bulged / billowed / swelled / bloated out.*

Apart from extensions of concrete objects which easily change magnitude, there are various extensions in space involving other kinds of objects. Thus, we may have:

a) expansion of discontinuously occupied space;
b) expansion in abstract domains;
c) expansion to full or canonical form.

Increase in discontinuously occupied space is coded by *out* when the particle profiles the separation of group members which results in enlargement of the length/area/volume, as in:

(81) a. *He spread out the tools on the workbench.*
b. *He laid the cards out on the table.*

Non-spatial expansion is coded in the following way:

(82) a. *The company branched out.*
b. *Dictation tests provide a rank order which spreads people out.*

Sentence in (82a) means that the company got bigger, and (82b) indicates separating scores by placing them over a large interval on a ranking scale.

In the area of expansion in abstract domains, we should also mention the following three meanings of *out*:

a) clarification;
b) distribution;
c) temporal extension.

In the case of clarification, *out* conveys the idea of ideas, arguments and alike being separated from whatever is perceived as some sort of confused and unstructured mass, as in:

(83) a. *Lay out your idea clearly.*
b. *He spelled out the conditions he would work under.*

The meaning of *out* in particle verbs such as *give out*, *hand out*, *rent out*, etc. codes distribution. This particular meaning is related to the meanings exemplified in (58), i.e. the examples where the TRs are viewed as being removed from the abstract boundary of a possession neighbourhood, as well as extended from the meaning exemplified in (81).

Lindner is careful to stress that, having taken into consideration several distinct meanings of *out*, we should not attempt to categorize particular meanings as an exclusive member of only one category, but allow for the possibility that verbs such as e.g. *hand out* belong to more than one category at the same time. This is in accordance with the cognitive linguistic framework as a usage-based model which assumes that speakers extract regularities from particular constructions (see section 2.1.1), and there is "nothing to prevent the extraction of more than one pattern from a given set of forms" (Lindner *ibid*.: 130). Naturally, this kind of theoretical framework is more than adequate for both investigating and explaining L2 meaning construal which is likely to involve not only predictable patterns but also usage-based idiosyncrasies stemming from the learners' knowledge of the world, amount and nature of exposure to L2, and general cognitive processes intertwined with language.

The last meaning belonging to the semantic area of expansion in abstract domains is temporal extension. The following two sentences exemplify coding temporal extension along a one-dimensional timeline:

(84) a. *Drag out an affair.*
b. *Draw out the weekend by taking Monday off.*

Temporal extension may also be analogous to the extension of discontinuously occupied length, as in:

(85) *He wants to string out the meetings beyond the first of the month.*

Finally, the last meaning denoting extensions in space is expansion to full or canonical form. Lindner suggests five related meanings:

a) expansion to intrinsic limit;
b) expansion to contextually or conventionally defined limit;
c) canonical arrangement;
d) expansion of mental constructs;
e) full temporal extension of an event.

The first of the above listed meanings profiles conversion from compacted form to the full form, as in:

(86) a. *Roll out the red carpet.*
b. *Write out the abbreviation.*

The sentence that follows exemplifies the second meaning. The particle *out* codes extension up to a canonical form, even though it might continue beyond it:

(87) *She really fills out that dress.*

Let us consider example (88):

(88) *Sort out the paper.*

In this example, the meaning of *out* is 'up to a canonical form', or, in this particular context, 'separated into proper arrangement'.

The fourth meaning listed above is related to mental constructs. Let us consider the following examples:

(89) a. *Act out the title in charades.*
b. *He sketched out his plan to me.*
c. *Shout out / sing out / yell out the answer.*
d. *Write out your ideas, plans and goals.*

In all of these examples cognitive constructs are construed as compacted forms constituting LMs for *out*. Their spatial and temporal extension occurs when they are altered into the physical medium (of written or spoken language). In the process, these constructs leave the individual and become accessible to the perception and cognition of the public (the viewer). In the same manner as with ideas, plans, and goals in example (89d), full and accessible form may be given to musical and visual constructs:

(90) a. *Pick out a tune on the piano.*
b. *Sketch out / draw out a diagram.*

The last meaning we are going to tackle under the heading of meanings denoting extensions to full or canonical form is full temporal extension of an event, as in:

(91) a. *When we were sick, we just had to tough it out.*
b. *They lived their lives in obscurity.*
c. *In spite of the rain, they played out the match.*

In these examples *out* codes an object's progress through time. Customarily, it progresses from a given LM point to its endpoint.

2.2.5.7. Moving away

Let us consider the following example and the accompanying diagram:

(92) *They set out / started out / struck out for Alaska*.

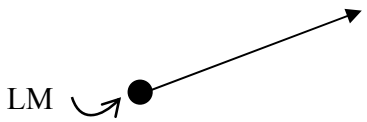

Figure 14. *out* 'as moving away from origin' (adapted from Lindner ibid.: 137)

The LM is a point selected as origin, centre, or source, and *out* stands for 'movement away from origin'. Apart from the obvious spatial dimension, there is also the sense of initiation. Thus, *out* also codes the start of a particular activity. The start is often coupled with 'distribution':

(93) a. *The whale sends out distinctive sounds.*
b. *Can you send out a tow truck?*

The particle verb with *out* can also code the release of a sublexical TR from its source:

(94) a. *Cry out in pain.*
b. *The bells rang out.*

In both sentences, the sound leaves its source and becomes more accessible to perception.

Finally, the vertical axis of the body is often taken as a central point. Hence, we find the following:

(95) a. *Strike out in fury.*

b. *Reach out to touch someone.*

c. *My nose/ears stick out.*

It should be mentioned that in these three examples, just like in many other cases, other meanings of out may be claimed to be instantiated. According to Lindner, verbs like, e.g. *look out* or *watch out* may use "the concept of a person's own space or surrounding neighbourhood of attention which does not as yet include some imminent danger" (*ibid*.: 138).

Lindner concludes her detailed descriptions by proposing a kind of superschema subsuming the three previously given schemas (see Figures 6, 9 and 10):

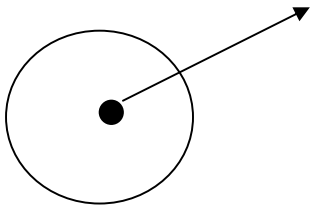

Figure 15. Superschema for *out* (adapted from Lindner ibid.: 140)

However, she emphasizes that the superschema is "far too abstract to supply the specific kinds of information found in verb particle constructions" (*ibid.*: 140). On the other hand, the unified description offered in the work suggests that all versions of *out*, i.e. their meanings, serve as a basis for some regular (and productive) group of verbs. Finally, and most importantly, schemas facilitate evaluation of novel structures. Langacker (1980 as cited in Lindner *ibid*.: 102) points out:

> "…to the extent that a speaker can judge a novel structure to be a valid instantiation of a schema, we can say that the schema sanctions this non-unit as a well-formed extrapolation from established convention; such extrapolation is the basis for linguistic creativity."

2.2.6. Rudzka-Ostyn on the meaning of *out* in phrasal verbs and compounds

According to Rudzka-Ostyn (2003: 15), the core meaning of *out* is 'leaving a container', and the container/surface/landmark may be various: an enclosure, a building, a room, a shell, a tunnel, a field, a substance (liquid or solid), a set or group of objects, our body and mind, etc.

The first, and the most prototypical, meaning exemplified in the textbook is *out* coding 'moving out of containers' (*ibid*.: 15), as in:

(96) a. *They decided to throw out most of their old clothes.*
b. *Teenagers like to cut out articles about their idols.*
c. *The businessman flew out of Heathrow airport.*
d. *Watch out: there is a car coming!*

Having in mind both teachers and learners of English, Rudzka-Ostyn encourages the reader to consider a variety of containers serving as LMs, and she explains the motivation for using *out* in examples such as (93d). Explaining this particular example, she suggests it means 'look carefully around, *beyond,* **outside** *your usual field of vision, for a potential danger*' (*ibid.*: 16, original emphasis).

In addition to motion in space, she lists the following meanings and aspects of meanings:

a) eat or inviting to eat away from home;
b) sets and groups as containers;
c) bodies, minds, mouths viewed as containers;
d) states / situations viewed as containers;
e) non-existence, ignorance, invisibility functioning as containers;
f) TRs increasing to maximal boundaries.

The following sentences exemplify the above given list of meanings:

(97) a. *I would like to take you out to lunch.*
b. *She picked out the most expensive dress in the shop.*
c. *She reached out to greet us.*
d. *She managed to talk him out of this stupid project.*

e. *Nobody knows as yet how the secret leaked out.*

f. *The lawyer dragged out / drew out all the details all the details during the trial.*

2.2.7. A few additional remarks on aspectual *out*

Even though both Lindner, in her detailed description of *out*, and Rudzka-Ostyn (2003), in her applied and concise account aimed at L2 language learners, clearly categorize particles in various semantic groups, their work does not contradict the usage-based aspect of the cognitive linguistic theoretical framework. Rudzka-Ostyn's systematic account presents particles in a motivated way, and the fuzziness of the categories presented is implied by the fact that even though they are unified by a single schema, the categories constitute a continuum from one set of meanings to another. The same kind of gradience is explicitly stressed by Lindner (1981: 129-130) who gives the example of *hand out* as a verb whose aspects of meaning fit profiles of two different versions of *out* ('removal from a group' and 'be separated from a clump so as to occupy more area'). Furthermore, she suggests that it is not possible to say which version is instantiated, i.e. claim with certainty that one version is preferred over the other. The solution to the problem is accepting the idea that such a verb simultaneously belongs to more than one category. Speakers extract regularities from verb particle constructions, and "there is nothing to prevent the extraction of more than one pattern from a given set of forms" (*ibid*.: 130).

The same problem of disambiguation of particular meanings of *out*, more specifically its aspectual usage, is tackled by Cappelle (2005). He claims that the reason for ambiguity is that "most instances of non-directional *out* involve idiomatic rather than clearly aspectual cases" (ibid.: 403). Let us consider some of his examples:

(98) a. *It didn't pan out as we expected.* ('develop')

b. *The wind snuffed out the flame.* ('extinguished')

c. *I can't figure him out.* ('understand, grasp')

However, Cappelle agrees that most of the idiomatic combinations are not entirely opaque, and thus, it is possible to have motivated subclasses. He gives example such as *deal out*, *dish out*, *give out*, *hand out*, *portion out*, *serve out*, etc. all coding some sort of 'distribution'. Still, he seeks to find out productive patterns with aspectual *out*, i.e. *out* denoting development of an even through time. First he cites Live (1965) who claims that verbs such as *work out*, *carry out*, *wear out*, *turn out* 'end', *give out* 'exhausted', etc. exemplify the aspectual *out*. But, since one of Cappelle's criteria for the aspectual meaning of the particle is full compositionality of the particle verb construction, he does not find the above given examples very representative. Moreover, he suggests that many of the examples in (99) are not the best examples of *out* referring to "the full temporal extension of an event" (Lindner 1981 as cited in Cappelle 2005: 404).

(99) a. *When we were sick, we just had to tough it out.*
b. *Will the patient see the week out?*
c. *They lived out their lives in obscurity.*
d. *The crew rode out the storm pretty well.*
e. *Fred will finish out his term as a lame duck.*

He suggests that 'messy semantic facts', such as whether the verb in (99d) refers to literal riding or not, or whether the verb in (99b) refers to the actual seeing (=the patient is blind) or it is used metaphorically, etc., do not make these instances a good example of an aspectual pattern. According to Cappelle, a much better example of an aspectual pattern is the one in which *out* codes completion or thoroughness. Again, he uses Lindner's examples:

(100) a. *I've got my next book noted out.*
b. *The next step is to flowchart out the solution.*
c. *I want o fantasize out my paper first before I do any reading on the subject.*
(Lindner 1981: 133)

Let us consider some more examples of the same pattern. The examples below are based on the authentic, paragraph-long examples found in Cappelle (2005: 405-406):

(101) a. *He attempted to itemize out the various design features which characterize language.*
b. *So, I averaged them all out and came up with 7.*
c. *In past years the student not only translated each word, but parsed out the grammar on demand.*

The question raised is whether the particle is indeed needed as an aspectual marker. It seems redundant when collocating with verbs that are already telic by themselves. Cappelle emphasizes that its role is to bring out more explicitly the telic character of the event:

(102) a. *She filled (out) the form {in / *for} five minutes.*
b. *I composed the piece (out) {in / *for} a week.*
c. *He itemized (out) all the factors {in / *for} a week.*
d. *I parsed the text {in / ?for} two hours. I parsed the text out {in / *for} two hours.*

Finally, he considers the following examples (ibid.: 408):

(103) a. *It weirded me out to see my face enlarged on the big screen!*
b. *I'm all examed out, and I sill have my last exam to do tomorrow morning.*

They are classified as semi-aspectual since the aspectual information is obscured by the notion of transition into an abnormal or nonfunctional state (compare with Lindner, section *2.2.5.4*).

2.2.8. Final theoretical remarks

The aim of this chapter was to elucidate fundamental aspects of *in* and *out* that are likely to facilitate the understanding of meaning construal in L2. As a usage-based theoretical framework, cognitive linguistic description of language allows for explaining various L2 peculiarities that have often been unjustly classified and dismissed as errors, instead of being treated as signals of cognitive facilitators and constraints in the process of L2 acquisition. Taking a closer look at the strategic construal of *in* and *out*, we are starting a journey that might teach us that learners' naïve thinking of language is not at all naïve, and that their insights into linguistic meaning might be used both to illuminate and confirm speculations about particular aspects of both L1 and L2 development.

In the sections dealing with the construal of *in* and *out* in English as L1, we have outlined both the meanings directly relevant for our analyses, i.e. those that overlap with the construal of these particles in English as L2, as well as other meanings described and discussed by the same authors. Thus, we hope to have offered the entire meaning network in a motivated way, which we find essential for understanding the semantic intricacies of the two particles and their composite wholes.

The meanings of *out* directly relevant for our central discussion are the following: a) the prototypical meaning described by Lindner (see section 2.2.5.1), i.e. "the removal o departure of one concrete object from within another object or space"; b) *out* whose meaning codes foregrounding a single (static) configuration (see section 2.2.5.2); c) meaning extensions pertaining to abstract displacement (LMs are: some abstract, coherent complex o information; abstract neighbourhood of possession; privacy; change from hiddenness to accessibility; change from accessibility to inaccessibility, including nonfunction/non-existence - see section 2.2.5.4), d) extensions and expansions in time and space, including full temporal extension of an event (see section 2.2.5.6); and e) the meaning of "moving away", including the spatial dimension and the sense of initiation, i.e. the start of a particular activity (see section 2.2.5.7).

The meanings of *in* directly relevant for our central discussion are the following: a) the prototypical meaning of containment (see section 2.2.1 for the characterization of its topology and section 2.2.2 for its dynamic characterization); b) the vantage point is

interior cluster (see section 2.2.3.2); and c) the vantage point is exterior cluster (see section 2.2.3.3).

Finally, what we have learnt in this chapter is the following:

1) descriptions of *in* and *out* selected to be presented in this chapter suggest that the best way to describe complex lexical categories is by devising a network of related senses bearing relationships to one another (as in Evans and Tyler, Rudzka-Ostyn and Lindner);
2) meaning construal of both *in* and *out* is a dynamic process;
3) this process of meaning construction is assumed to depend on the speaker's knowledge of the world and direct bodily experience, as well as general cognitive process such as e.g. attention (see Dewell's discussion on mental scanning) and perspective (see and Lindner's model of viewing arrangement);
4) as a usage-based theory, CL offers a general theoretical framework for investigating "real" language in use, and provides prerequisites for relating the emergence of particular constructions in L2 to the learners' cognitive abilities and pre-acquired knowledge;
5) it is legitimate to assume that the learners' reasoning about particular facets of meaning might elucidate both low-level and high-level schemas at which they have arrived, as well as offer insight into the extensions of particular patterns and the factors that influence them.

Aspects of *in* and *out* outlined in this chapter, and summarized in this last section, are fundamental for our description of the strategic construal of these particles in the cases of topological determination and compositional meanings of PV constructions. A variety of elements of their strategic construal related to the above offered descriptions in L1 are going to support the analysis of the data that is going to be presented in the first part of our results. More specifically, the dominance of the particle in light PV constructions, which is one of the central findings outlined in the first part of our research results, is going to be substantiated with a) detailed descriptions of how the meanings of the particles have been constructed, and b) descriptions of specific aspects of construal that have been found central for particular groups of particle verbs.

In the chapter that follows we are going to present research methodology devised to investigate the process of meaning construction by employing insights from both SLA and cognitive linguistic theory. We start by outlining the fundamental motivation for our research aims and hypotheses. Then, we describe the instrument used, the sample and the procedure, and finally, we give details about how the data was coded, analyzed and processed.

3. Research

Nobody has ever asked us to make sense of phrasal verbs, but we were often told they are very important.

Edna (a research participant, Mexico City, 2006)

3.1. Aims and hypotheses

The aims and hypotheses that motivated the research of the present dissertation are based on the results of pre-research into strategic construal of English phrasal verbs (Geld 2006). There were two fundamental assumptions governing the pre-research: a) language is an experiential phenomenon and, b) it is intimately connected to other cognitive processes. Furthermore, it was assumed that meaning construal in L2 (i.e. strategic construal) can be used as evidence towards the connection of cognitive (learning) strategies (Weinstein and Mayer 1986; O'Malley and Chamot 1990; Oxford 1990) in the acquisition of L2 and general cognitive processes as aspects of construal in L1.

The pre-research involved 120 English majors (76 Croats and 44 Mexicans) and its aim was to investigate the nature of cognitive strategies in the process of intentional learning of English phrasal verbs. The results showed the following:

1) Learners use a variety of cognitive strategies that reflect general cognitive processes as described by cognitive linguistics. In the process of strategic construal of phrasal verbs, the most frequently activated processes are: categorization (Lakoff 1987; Langacker 1987; Taylor 1995), figure/ground alignment (Talmy 1972, 2000), structural schematization (Talmy 2000), metaphor and metonymy (Lakoff and Johnson 1980; Lakoff 1990, 1993; Kövecses and Radden 1998; Radden and Kövecses 1999; Barcelona 2003; Kövecses 2000, 2002, 2005; Brdar and Brdar-Szabó 2003), image schemas (Talmy 1988, 2000; Lakoff 1987; Johnson 1987; Langacker 1993; Hampe 2005) and force dynamics (Talmy 1988, 2000).[40]

[40] All the abovementioned processes have been extensively discussed and exemplified by a great number of cognitive linguistics. They have been systematically presented as linguistic construal operations and instances of four general cognitive processes (attention/salience, judgement/comparison, perspective/situatedness, and constitution/gestalt) by Croft and Wood (2000) and Croft and Cruse (2004).

2) Topological determination plays an important role in meaning construal. The contribution of the particle dominates the construal, especially in cases when the phrasal verb construction contains a semantically schematic verb, such as e.g. *take* or *put*.

The abovementioned findings were used as a starting point for further investigation, which enabled us to determine the aims and hypotheses of the present research. The primary aim was to investigate cognitive processes activated in the process of meaning construction in English as a second language, especially in terms of predicable linguistic patterns in the construal of particle verb constructions. We wished to find out if/how the learners of English make sense of particle verb constructions and how much they rely on the topological/grammatical in the process of constructing meaning. More specifically, we were interested in the following:

1) The relationship between topological and lexical determination in relation to the semantic nature of the verb (light vs. heavy).
2) Frequency of compositional meanings in relation to the semantic nature of the verb (light vs. heavy).
3) The relationship between topological and lexical determination in relation to general language proficiency and years of learning English.
4) Frequency of compositional meanings in relation to general language proficiency and years of learning English.
5) The relationship between topological and lexical determination in relation to the learners' first language (Croatian vs. Spanish).
6) Frequency of compositional meanings in relation to the learners' first language (Croatian vs. Spanish).
7) The nature of topological determination in terms of strategic construal of *in* and *out*.
8) The nature of topological determination, i.e. the nature of strategic construal of *in* and *out*, in terms of its relation to language proficiency.

Given the nature of verbs that form PV constructions (light vs. heavy), the nature of our participants L1 (Spanish being a prototypical verb-framed language vs. Croatian

containing both verb-only and verb-plus-satellite structures), and the role of external factors such as language proficiency, years of learning and the overall educational setting, the following hypotheses were made:

1) Topological determination is expected with particle verbs containing light lexical parts.
2) Lexical determination is expected with particle verbs containing heavy lexical parts.
3) A more "balanced" determination (= compositionality) is expected with particle verbs containing heavy lexical parts.
4) Topological determination is expected in learners with higher language proficiency.
5) Higher frequency of compositional meanings is expected in learners with higher language proficiency.
6) Topological determination and higher frequency of compositional meanings are expected in Croatian learners of English.
7) Lexical determination and lower frequency of compositional meanings are expected in Mexican learners of English.
8) Construal of *in* and *out* shows a cognitively motivated path from the topological to the aspectual.
9) Construal varies according to language proficiency.

3.2. The instrument

The instrument used was a questionnaire that consisted of 20 particle verbs. There were several criteria for their selection. The basic aim was to obtain a balanced language material, which implied the following: a) particle verb constructions with both heavy and light lexical parts, b) similar number of meanings in the two groups, and c) all meanings validated as metaphoric/obscure. Three light and seven heavy verbs were selected: *go, take, put* and *call, cut, break, draw, pull, shut, write.* All verbs had to be semantically productive with both *in* and *out*. After the particle verbs had been selected, we designed a

questionnaire using all the meanings listed in three different learners' dictionaries.[41] In order to obtain metaphoric meanings we used a simple triangulation test (see Appendix 1), that is, the meanings were first judged by two linguists, then by 5 native speakers, and finally, and most importantly, by 40 English majors (final year of study). They were all asked to place each meaning on the scale from 1 to 5, 1 being "the most literal" and 5 being "the most abstract/metaphoric" meaning. The result was 45 meanings used in the research.

The second step was to conduct a pilot research in order to test the reliability of the questionnaire. The tasks were sequenced in such a manner as to avoid having the same lexical parts close together or the same particle one after another (see Appendix 2). The questionnaire was tested on 112 first-year English majors. They were asked to make sense of the phrasal verb constructions, that is, 45 meanings given in the questionnaire. After qualitative analysis of all the answers, it was concluded that the example sentences accompanying the meanings had (too) frequently directed the participants' attention to particular images produced by the examples, rather than making them think about the phrasal constructions themselves. For example, for the particle verb *go out* 'stop burning' and the accompanying example *You let the fire go out*, a number of participants in the pilot research gave answers such as: "*Go out* makes sense because the fire leaves the house", or, e.g., for the verb *draw out* 'make something last longer' and the example *Professor Newman drew his speech out endlessly*, they would write something along the following lines: "The professor is old and boring and he doesn't know how to stop". However, in cases where the participants focused more on the meaning of the phrase and less on paraphrasing or describing the meaning of the sentence, the questionnaire proved to be challenging, but quite productive in terms of what we had wished to investigate. Thus, it was decided that the final version would contain only isolated meanings without any other context (see Appendix 3).

3.3. The sample and the procedure

The sample consisted of 100 learners/speakers of English, more specifically, proficient English majors from Croatia and Mexico: 68 students from the Faculty of Philosophy,

[41] *Oxford Phrasal Verbs*, *Cambridge Phrasal Verbs* and *Basic Phrasal Verbs*

University of Zagreb (Filozofski fakultet, Sveučilište u Zagrebu), and 32 students from the Faculty of Philosophy at UNAM (Facultad de Filosofía y Letras, Universidad Nacional Autónoma de México, Mexico City). They were tested separately at their respective universities, in small groups, all scheduled in two sessions that were a week apart.

Our primary aim was to have two groups of experienced learners of English with similar educational background but a different first language. What we had not expected was to find out that there were almost three times less English majors at UNAM than at the University of Zagreb. Furthermore, the year of study in Mexico, as opposed to Croatia, does not guarantee a particular level of language proficiency. Thus, it was decided that in Croatia we would work with the 3rd and 4th year students, whereas in Mexico with a group of students attending the last level of their academic language exercises.

The first step in the final stage of the research was to test their language proficiency. After the proficiency test, the participants were scheduled to attend two separate sessions to complete the research questionnaire. It is important to mention that all the participants were personally supervised by the researcher. All the instructions were written and provided exclusively in that form (see the instructions at the top of the page in Appendix 3). The researcher made sure that the answers were given individually, i.e. that the participants could not consult. After having completed both parts of the questionnaire, each participant was asked to provide the following data: name, age, year of study and years of learning English. All the proficiency tests and questionnaires were numbered - the numbers designate particular participants and their first language (numbers 1-68 stand for the Croats and numbers 69-100 for the Mexicans). In order to conduct both quantitative and qualitative analyses, all the answers were first copied, grouped and sequenced alphabetically (see Appendices 4 and 5).[42]

[42] The scope and focus of this study did not allow a broader investigation into an exceptionally interesting and potentially relevant field of individual learner differences. It would have been interesting to find out whether, e.g., foreign language aptitude (see e.g. Carroll and Sapon 1959; Carroll 1962; 1967; Pimsleur 1966, 1968; Skehen 1986; 1989; 2002; Parry and Child 1990; Sparks and Ganschow 1991; Sparks et al. 1992; Grigorenko, Sternberg and Ehrman 2000; Robinson 2002; Harley and Hart 2002) correlates in any way with particular patterns in the process of meaning construction. Furthermore, we have not measured our participants motivation and anxiety (see e.g. Gardner and Lambert 1972; MacIntyre and Gardner 1989, 1991, 1994a, 1994b, MacIntyre et al 2001, Mihaljević Djigunović 1998, 2002), which are frequently discussed in the context of L2 learning and performance, and which may have had influence on the answers obtained in our study (see section 4.5 for a brief discussion). Finally, we have not tackled the issue of

3.4. The data

3.4.1. Preliminary analysis and coding

After the data had been copied, grouped and sequenced, each answer was coded. A few tentative ideas of the most frequent categories of answers had already been conceived in the process of copying and organizing the answers, however, it took us several close readings and analyses[43] of all 4,198 (2,207 for *out* and 1,991 for *in*) answers in order to be able to label each answer with one of the following codes:

1) **TOP** for topological determination (the code is used for all the answers in which the meaning of the particle overrides the meaning of the lexical part of the construction);
2) **LX** for lexical determination (the code is used for all the answers in which the meaning of the lexical part overrides the meaning of the particle);
3) **CMP** for compositional meaning;
4) **PPH** for paraphrase;
5) **OPP** for basic opposition (e.g., *go in* explained in terms of being opposite to *go out*, or *in* being explained in terms of being opposite to *out*);
6) **MIS** for misinterpretation (examples where the answer is in no way related to the particle verb construction);
7) **CTX** for examples where situational context is provided without the phrasal verb itself being used or explained;
8) **LXD** for examples with particle verbs being lexicalized, that is, a Latinate verb offered as an explanation.

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learning styles, which are broadly defined as "the characteristic cognitive, affective and psychological behaviours that serve as relatively stable indicators of how learners perceive, interact with and respond to the learning environment" (Keefe as cited in Ellis 1994: 499). SLA research has been primarily concerned with the distinction between field independence and field dependence (see e.g. Witkin et al. 1971, Chapelle and Roberts 1986, Willing 1987, Carter (1988), Ellis (1990), Griffiths and Sheen 1992 Chapelle and Green 1992). According to Witkin at al., "In a field-dependent mode of perceiving, perception is strongly dominated by the overall organization of the surrounding field, and parts of the field are experienced as 'fused'. In the filed-independent mode of perceiving, parts of the field are experienced as discrete from organized ground…'field dependent' and 'field independent', like the designations 'tall' and 'short' are relative (1971: 4).

[43] The data has been independently validated by a linguist and a non-linguist validator. Their judgements were processed and compared to the author's, and the results did not show significant differences.

Let us briefly illustrate the three categories that are crucial for this dissertation. The particle verb and its meaning are followed by a few examples of the participants' answers.

a) Topological determination:

- *break out* ('become covered in something, like in sweat or rash') – "something goes out of you and you cannot control it, it is out and you cannot put it back in by will";
- *put out* ('make trouble, problems, extra work') – "put something or somebody out of the state of being without problems";
- *put out* ('make somebody go to sleep or unconscious') – "to put somebody or something out of its usual place/space and disable its usual function";
- *put in* ('elect a political party as the government') – "the government is a place in which you put the elected political party to do something".

b) Lexical determination:

- *break out* ('become covered in something, like in sweat or rash') – "breaking is violent and if something is under pressure it will break out and it will be fast, sudden, it is pent up and then something breaks and it is released";
- *draw out* ('make something last longer') – "*draw* indicates that the action is prolonged, it means to stretch, to extend";
- *break in* ('wear something until it is comfortable') – "when something is new it is usually whole, so you have to break it a little bit and it becomes comfortable;
- *call in* ('make a short visit usually on the way to another place') – "when you want to visit somebody you usually call them to see if the are home').

c) Compositional meaning:

- *break out* ('become covered in something like in sweat or rash') – "*out* – something gets out in the open, it is visible to everybody, *break* – a sudden, unexpected act";
- *put out* ('make trouble, problems, extra work') – "*put* – it makes me think of somebody imposing more work on somebody else, *out* – what is out of one's usual routine, out of normal";

- *draw out* (‘make somebody feel less nervous or shy’) – “*draw* – to remove a person from his/her private world, *out* – in the open, away from depression”;
- *break in* (‘wear something until it is comfortable’) – “if you have a new shirt you have to put yourself in it to wear it… breaking would be stretching”;
- *call in* (‘make a public request for a product to be returned’) – “you call the people and ask them to bring the product into the place where you are”;
- *call in* (‘make a short visit usually on the way to another place’) – “*call* – because it is a short visit just like a phone call, and *in* is the place that you visit”.

After all the 4,198 answers had been labelled with one of the 8 codes, all the answers labelled as topological or compositional were re-examined several times in order to be further categorized according to strategic construal of the particles. There were originally 14 categories of *out*, however, some categories were merged into one after the data had been statistically processed and re-analyzed. Thus, the categories of particular construals of ***out*** are sequenced in the following way (PC+No stands for the coding of the particle):

a) **PC1** - processual topology (concrete/physical).

Out is: going out or leaving an enclosed space; going out of anything that surrounds you or confines you; going out or leaving a container (human bodies, houses, buildings, drawers, etc).

b) **PC3** - static topology (concrete/physical) – out of our dominion or out of the ’usual’ place.

Out is: out of where we are; out of our world; out of our reach; out of normal position; out of its place; displaced; out of its physical boundaries; out of its physical limits.

c) **PC2** - abstract topology (static displacement/change of state).

Out is: out of the previous state; out of the previous activity; out of the original state; out of the normal state; out of routine; out of the usual; out of order; out of circuit; out of what is expected or correct.

d) **PC4** - *out* is: absence; absent; not present; not here; isolation; not seen; not visible.

e) **PC5** - processual topology without direct reference to the container.

Out is: disappear; disappearing; leaving.

f) **PC7** – aspectual (termination).

Out is: something finished; end; ended; completely; completely stopping; termination; all of something.

g) **PC9** - static topology (both concrete and abstract) with focus on the space outside our immediate dominion.

Out is: outside; out where other people are; visible; not hidden; out in the open; out in the larger area; out in all directions or surrounding space.

i) **PC12** - established metaphor.

Out is: out of the group; not belonging; free; freedom; something discarded; something unacceptable; something negative.

j) **PC13 -** aspectual (inception).

Out is: the action starts; the activity is in effect; things are in effect; things are in existence; things begin.

k) **PC14** - there is some kind of reverse viewing (change of focus): the meaning of *out* in e.g. *take out* meaning 'kill' is interpreted in two ways*:* a) 'a person is taken out of life', or b) 'life is taken out of a person's body, or, e.g., in *draw out* meaning 'make less nervous or shy' *out* is: a) 'out of the state of nervousness, or b) 'nervousness taken out of the body'.

Categories for ***in*** are the following:

a) **PC1** - processual topology (concrete/physical).

In is: entering a new space; getting (in)to a new space (there is some kind of movement involved); getting into a container and the container is specified; going into a certain space; going into a designated area; into a certain piece of space; into a place.

b) **PC3** - static topology (concrete/physical) - there is no motion, just physical space and location.

In is**:** a place; a location; space; limited space; confined space; something like a hiding place.

c) **PC2** – abstract topology leaning towards inceptive aspect.

In is: be/get (in)to a new activity; be/get (in)to a new situation; (in)to a (new/another) group of people; entering a new situation; beginning of something; starting to get involved.

d) **PC4** - static topology - focus on the subject's dominion (egocentric viewing).
In is: where the subject is, i.e. his/her world; control; dominion; power.
e) **PC5** - process (concrete and physical, but no container specified).
In is: going into; jumping into; moving towards inside; moving inwards; entering; returning.
f) **PC6** - *in* is: inside, inside of something (not very informative).
g) **PC8** - *in* intensifies the action.
h) **PC11** - reverse topology (reverse viewing and non-egocentric viewing).
i) **PC12** - established metaphor.
In is: acceptable; accepting.

The final step towards obtaining first quantitative results was to feed all the information into a statistical programme. The programme used was SPSS, and the information processed consisted of the following data: the participants' research number, year of study, years of learning English, score on the proficiency test, all the answers, and all the accompanying codes. The data was fed into the programme in such a way as to enable various statistical analyses relevant for the starting hypotheses.

4. Results

When I started doing the task I was lost, I thought I wouldn't write down anything. Now, after everything is done, I am amazed with how much I know.

Maja (a research participant, Zagreb, 2006)

4.1. Type of determination: light vs. heavy verbs

4.1.1. Results and discussion for PVs with *out*

There were three hypotheses related to the type of determination:

1) Topological determination[44] is expected with PVs containing light lexical parts.
2) Lexical determination is expected with PVs containing heavy lexical parts.
3) A more "balanced" determination (=compositionality)[45] is expected with PVs containing heavy lexical parts.

For particle verb constructions with ***out***, the analysis of the data has revealed that there is a statistically significant difference between aspects of strategic construal with PVs containing light lexical parts and PVs containing heavy lexical parts. More specifically:

a) there is more topological determination with PVs with light lexical parts (M=29.47) than with PVs with heavy lexical parts (M=10.48) (see tables 1 and 2). The numbers show that 29.47% of participants explained the meaning of particle verb constructions with light verbs in such a way as to refer to topology, whereas only 10.48% of participants did the same while describing particle verb constructions with heavy verbs. The difference has proved to be statistically significant ($t=7.073$; $p<0.01$) (see table 3).

[44] The terms topology and topological determination are used (metaphorically and metonymically) to denote all the cases where the meaning of the particle seems to override the meaning of the verb.
[45] The term "balanced determination" is identified here with the concept of compositionality inasmuch as it implies how closely an expression approximates the result predicted on the basis of particular component structures. By default, it is assumed that both components contribute to the semantic value of the composite whole.

Table 1. Average occurrence of particular answers (codes) for light verbs in the whole sample

		ALIG_ TOP	*ALIG_ LX*	*ALIG_ CMP*	*ALIG_ PPH*	*ALIG_ OPP*	*ALIG_ MIS*	*ALIG_ CTX*	*ALIG_ LXD*
N	Valid	62	62	62	62	62	62	62	62
	Missing	38	38	38	38	38	38	38	38
Mean		0.2947	0.0147	0.2023	0.2522	0.0469	0.1950	0.0411	0.0293
Mean %		29.47	1.47	20.23	25.22	4.69	19.50	4.11	2.93

Table 2. Average occurrence of particular answers (codes) for heavy verbs in the whole sample

		AHEA_ TOP	*AHEA _LX*	*AHEA_ CMP*	*AHEA_ PPH*	*AHEA_ OPP*	*AHEA_ MIS*	*AHEA_ CTX*	*AHEA_ LXD*
N	Valid	70	70	69	70	70	69	70	70
	Missing	30	30	31	30	30	31	30	30
Mean		0.1048	0.1429	0.2947	0.2821	0.0512	0.1280	0.0381	0.0381
Mean %		10.48	14.29	29.47	28.21	5.12	12.80	3.81	3.81

Table 3. Paired samples comparison of average occurrence of particular answers (codes) for light and heavy verbs in the whole sample

		Mean	*N*	*Std. Deviation*	*t-test*	*p*	
Pair 1	ALIG_TOP	.2933	53	.22526	7.073	<0.01	
	AHEA_TOP	.1053	53	.11341			
Pair 2	ALIG_LX	.0086	53	.03221	-7.400	<0.01	
	AHEA_LX	.1557	53	.13967			
Pair 3	ALIG_CMP	.2230	53	.28613	-3.743	<0.01	
	AHEA_CMP	.3286	53	.29527			
Pair 4	ALIG_PPH	.2607	53	.19452	.440	>0.01	
	AHEA_PPH	.2516	53	.19982			
Pair 5	ALIG_OPP	.0497	53	.06567	0.489	>0.01	
	AHEA_OPP	.0550	53	.07113			
Pair 6	ALIG_MIS	.1836	52	.12918	2.754	<0.01	
	AHEA_MIS	.1266	52	.14338			
Pair 7	ALIG_CTX	.0326	53	.09280	.258	>0.01	
	AHEA_CTX	.0299	53	.08662			
Pair 8	ALIG_LXD	.0292	53	.04640	.280	>0.01	
	AHEA_LXD	.0267	53	.05364			

b) Conversely, as much as 14.29% of the participants (see table 2) implied lexical determination while describing PVs with heavy lexical parts, whereas only 1.47% of the participants did so while describing PVs with light lexical part (see table 1). The difference is statistically significant (t=-7.400; p<0.01).

c) Furthermore, 29.47% of the participants described the PVs constructions with heavy lexical part by implying compositionality of meaning, whereas only 20.23% of the participants (see tables 1 and 2) did so while explaining the meaning of PVs constructions with light verbs. The difference in usage is significant ($t=-3.743$; $p<0.01$) (see table 3).

The results show that the semantic weight of both verbs and particles plays a significant role in the process of meaning construction in L2. On the one hand, semantically light verbs are delexicalized and schematic, and, thus, they are likely to be construed as vague and superfluous. On the other hand, particles, such as *in* and *out*, are omnipresent and highly productive, they are the most immediate conceptual tool for mental structuring of space, they build paths and temporal contouring of events, they code change in state of existence, etc. Hence, learners' reliance on particles is not surprising.

It is also important to mention that the results support previous findings associated with the underuse of high-frequency verbs in L2 processing (see section 1.1.2).

Furthermore, the nature of contribution of light and heavy verbs is also evident in the results related to compositionality. It seems easier for learners to find a semantic relation between a heavy verb and the meaning assigned to the whole construction than between a semantically vague verb and its construction. In more general terms, this is another piece of evidence that meanings are subjective and dynamic. Even though we may claim that the above described tendency is a predictable pattern, the overall semantic picture for L2 is the following: compositionality is partial and gradient. What it means is that a) the relation between a PV composite structure and its components is not arbitrary, b) a composite structure is not constructed out of its components, nor is it fully predictable (see section 2.1.1), and c) the continuum of compositionality is likely to have various stages, with each stage corresponding to a particular aspect of strategic construal.

In other words, the only cognitively realistic description of the meaning construal of PVs in L2 is the one that accounts for all the data obtained. What the data shows is that the extent to which learners are cognizant of the semantic contribution of component elements, i.e. the analyzability of PV constructions, varies considerably in the whole sample. Discrepancies between the expected compositional meaning and the actual meaning lessen the degree of analyzability, which results in a variety of strategic

construal with salience being shifted from one aspect to another. Thus, in the same manner that is claimed for native speakers, learners use the components as some sort of "scaffolding" that helps one "reach" the composite structure (Langacker 2000: 152, original emphasis). Sometimes it seems easier to reach a particular PV via its verb, on some other occasions via its satellite, and, sometimes both components seem to correspond to some aspects of the composite structure. The only logical conclusion is that the semantic continuum of strategic construal of PVs runs from learners relying exclusively on semantically heavy verbs to finding primary motivation for meaning in highly grammaticalized particles. In between the two extremes relating to either lexical or topological/grammatical determination, there are a number of intermediate cases involving gradient and partial compositionality (see Figure 16).

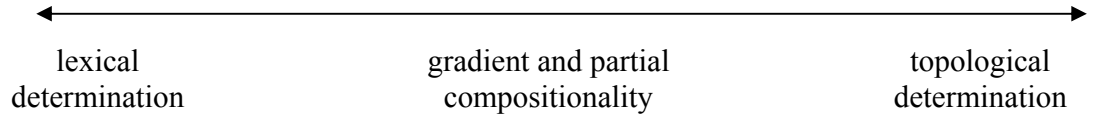

Figure 16. Semantic determination in strategic construal of particle verbs

Before proceeding to the results for *in*, let us briefly consider the rest of the results for *out*. When asked to make sense of the meaning of PVs selected for this research, the participants also employed several strategies that indicate some sort of avoidance, i.e., apart from focusing on particle-verb components, they also did one of the following:

a) they simply paraphrased the meaning (e.g. for *break out* 'begin suddenly' we find paraphrases such as: "it means something like start unexpectedly");
b) they explained the meaning by offering basic opposition (e.g. *break out* means that "something is not *in* any more");
c) they gave various contexts of use;
d) they gave one or more equivalents (single-word, Latinate verbs).

In the data dealing with PVs with *out*, none of these strategies was significantly different in relation to light and heavy lexical parts (see Tables 1, 2 and 3). However, the occurrence of misinterpretation is significantly more frequent with PVs containing light verbs (see Tables 1, 2 and 3). The numbers show that, while discussing PVs with light lexical parts, as much as 19.5% of participants explained the meaning by referring to something that is in no way related to the verb in question. On the other hand, the same happened in only 12.8% cases while the participants were trying to explain the meaning of PVs with heavy verbs. It is reasonable to conclude that a high degree of polysemy characteristic for light, high-frequency verbs is likely to contribute to a more frequent occurrence of misinterpretation.

In sum, what a learner can tell us about the meaning of a particular complex expression depends on two things: a) what s/he knows about it as a conventional lexical item, and b) what she knows about its component parts. However, it is very difficult to predict with certainty which domains of knowledge will be activated in the process of meaning construction. In this section and in sections 4.1.2 and 4.1.3, we are primarily concerned with aspects of knowledge pertaining to the conceptual structure of L2. In the subsequent sections, we are going to discuss several other factors that are bound to affect meaning construal in L2, and these are: a) aspects of the conceptual structure of L1, and b) language external factors.

4.1.2. Results and discussion for PVs with *in*

For particle verb constructions with ***in***, the analysis of the data has revealed the following:

d) There is more topological determination with PVs with light lexical parts (M=29.78) than with PVs with heavy lexical parts (M=7.06) (see Tables 4 and 5). Only 7.06% of the participants referred to topology while explaining the particle verb constructions with semantically heavy lexical parts, whereas as much as 29.78 % of the participants referred to the topological part of the construction while explaining the meaning of PVs with light lexical parts. The difference is statistically significant ($t=7.785$; $p<0.01$) (see table 6).

e) Conversely, there is more lexical determination with PVs with heavy lexical parts (M=17.66) than with PVs with light lexical parts (M=1.54) (see tables 4 and 5). In the process of constructing the meaning of PVs with heavy lexical parts, as much as 17.66% of the participants relied on the meaning of the lexical part of the construction, and only 1.54% of the participants did so while constructing the meaning of PVs with light lexical parts. The difference is statistically significant ($t=7.266$; $p<0.01$) (see table 6).

f) Finally, there is a higher frequency of compositional meanings with PVs containing heavy lexical parts (M=36.86) than with PVs containing light lexical parts (M=22.69). The numbers show that 36.86% of the participants attended equally to both parts of the construction while constructing the meaning of the particle verbs containing heavy verbs, whereas they attended significantly less to both parts of the construction in the process of constructing and explaining the meaning of the particle verbs with light verbs ($t=-4.507$; $p<0.01$) (see table 6).

Table 4. Average occurrence of particular answers (codes) for light verbs in the whole sample

		ALIG_ TOP	*ALIG_ LX*	*ALIG_ CMP*	*ALIG_ PPH*	*ALIG_ OPP*	*ALIG_ MIS*	*ALIG_ CTX*	*ALIG_ LXD*
N	Valid	72	72	72	72	72	72	72	72
	Missing	28	28	28	28	28	28	28	28
Mean		.2978	.0154	.2269	.2469	.0077	.1543	.0448	.0139
Mean %		29.78	1.54	22.69	24.69	0.77	15.43	4.48	1.39

Table 5. Average occurrence of particular answers (codes) for heavy verbs in the whole sample

		AHEA_ TOP	*AHEA_ LX*	*AHEA_ CMP*	*AHEA_ PPH*	*AHEA_ OPP*	*AHEA_ MIS*	*AHEA_ CTX*	*AHEA_ LXD*
N	Valid	59	59	59	58	58	59	59	59
	Missing	41	41	41	42	42	41	41	41
Mean		.0706	.1766	.3686	.1983	.0101	.1441	.0410	.0042
Mean %		7.06	17.66	36.86	19.83	1.01	14.41	4.01	0.42

Table 6. Paired samples comparison of average occurrence of particular answers (codes) for light and heavy verbs in the whole sample

		Mean	*N*	*Std. Deviation*	*t-test*	*p*	
Pair 1	ALIG_TOP	.3072	51	.21953	7.785	<0.01	
	AHEA_TOP	.0784	51	.09634			
Pair 2	ALIG_LX	.0153	51	.04979	-7.266	<0.01	
	AHEA_LX	.1797	51	.16863			
Pair 3	ALIG_CMP	.2462	51	.25074	-4.507	<0.01	
	AHEA_CMP	.3840	51	.24893			
Pair 4	ALIG_PPH	.2533	50	.22564	2.477	>0.01	
	AHEA_PPH	.1817	50	.19099			
Pair 5	ALIG_OPP	.0065	51	.02640	-.852	>0.01	
	HEA_OPP	.0114	51	.02896			
Pair 6	ALIG_MIS	.1481	51	.16875	.046	>0.01	
	AHEA_MIS	.1471	51	14962			
Pair 7	ALIG_CTX	.0305	51	.07723	.124	>0.01	
	AHEA_CTX	.0294	51	.08948			
Pair 8	ALIG_LXD	.0022	51	.01556	-.340	>0.01	
	AHEA_LXD	.0033	51	.01634			

The results show that the semantic determination for PVs with *in* is consistent with the one found for *out.* Furthermore, the participants used the same avoidance strategies. The only difference found is that there is no significant difference in the frequency of misinterpretations in relation to PVs with light or heavy verbs, i.e., all strategies are equally frequent with both kinds of constructions (see Table 6). This may be attributed to the fact that *in* was generally found to be much less informative for learners than *out* (see the second part of the chapter dealing with the strategic construal of particles), and in combination with heavy verbs it often produces very specialized meanings difficult to predict.

4.1.3. Concluding remarks

The results confirm all the three hypotheses and show that semantic determination in the strategic construal of particle verbs depends on the schematicity/specificity of the lexical part of the construction. We may conclude that topological determination is a predictable semantic pattern in PV constructions with light verbs, whereas lexical determination and compositionality can be predicted in PV constructions with heavy verbs. However, what

cannot be predicted is whether lexical determination or compositionality will be dominant. When a learner is facing a PV construction with a schematic and semantically vague verb, it seems that the particle, whose many senses are highly motivated via its concrete/physical sense, wins over in the process of meaning construal. On the other hand, in the process of meaning construction involving semantically heavy verbs, we may expect lexical determination and compositionality. However, we suggest that these patterns cannot be taken as a fully realistic picture of meaning construal in L2. Learners' cognitive processing involves a constant shift of attention and ongoing capacity of activating various domains of knowledge and aspects of conceptual structure (such as e.g. metaphor and metonymy) that participate in meaning construal. Hence, the only way to describe meaning construction in L2 is to situate linguistically predictable patterns into the context of factors determining L2 development. In the sections that follow, we are going to discuss the second group of results that are concerned with the role of proficiency and other learning variables, and the role of L1 in the strategic construal of PV constructions.

4.2. Type of determination and learners' proficiency (1)

Our starting hypotheses were:

a) topological determination is expected in learners with higher language proficiency;
b) higher frequency of compositional meanings is expected in learners with higher language proficiency.

Before proceeding to discussing the relation between the type of determination in relation to learners' proficiency in the whole sample, let us briefly describe the sample itself and language external variables selected as relevant for this research.

There were three variables related to the participants' knowledge of English: their academic year of study, years of learning English as L2, and their score (in %) on the proficiency test conducted prior to the main part of the research (see table 7).

The results show that the average year of study for the whole sample is the third year (M=3.12), the average number of years of learning English is 12 (M=12.23), and the

average score on the proficiency test is 72.06%. The lowest score was 35% and the highest 91%.

Table 7. Descriptive statistics of English knowledge/learning variables for the whole sample

		Year of study	*Year of learning*	*Proficiency test*	
N	Valid	100	100	100	
	Missing	0	0	0	
Mean		3.12	12.23	72.06	
Minimum		1	3	35	
Maximum		4	13	91	

The sample consisted of 68 Croats and 32 Mexicans (see table 8). The results show that the periods of learning English for the Croats and the Mexicans were not significantly different. The average number of years of learning English for the Mexicans was close to 11 years (M=10.94), and for the Croats close to 13 years (M=12.84). There was also no significant difference in the results on the proficiency test. The average score achieved by the Mexicans was 68.83% whereas the average score for the Croats was 73.68%. However, it was found that the Croats were already enrolled in the fourth year (M=3.37), whereas the Mexicans were somewhere in the middle of their third year (M=2.59) when the research was conducted. The difference in the year of study is statistically significant ($t=3.89$; $p<0.01$). The reason for this is related to our attempt to have relatively homogenous groups in terms of proficiency. Since the year of study in Mexico does not guarantee a particular level of proficiency, as it is the case in Croatia, we decided to work with a group of students attending the same "language proficiency" class.

Table 8. Descriptive statistics and mean differences in English knowledge/learning variables for Mexicans and Croats

		N	*Mean*	*Std. Deviation*	*t-test*	*p*	
Year of study	Croats	68	3.37	.486	3,89	<0.01	
	Mexicans	32	2.59	1.073			
Year of learning	Croats	68	12.84	2.392	2,01	>0.01	
	Mexicans	32	10.94	5.080			
Proficiency test	Croats	68	73.68	11.697	2,03	>0.01	
	Mexicans	32	68.63	11.376			

4.2.1. Results and discussion for PVs with *out*: semantic determination and proficiency (1)

For PV constructions with ***out***, the analysis of the data has revealed the following:

a) With both light and heavy verb constructions, a higher frequency of compositional meanings is found in learners with higher language proficiency. For the light verb constructions the correlation is .307 (r=.307,) and for the heavy verb constructions the correlation is .350 (r=.350) (see tables 9 and 10).

Table 9. Pearson correlations between English knowledge/learning and the average occurrence of particular answers (codes) for light verbs in the whole sample

	Year of study	*Year of learning*	*Proficiency test*	
Year of study	1	.022	-.046	
Year of learning	.022	1	.262**	
Proficiency test	-.046	.262**	1	
ALIG_TOP	.123	.207	.214	
ALIG_LX	-.040	-.163	-.134	
ALIG_CMP	.132	-.030	.307*	
ALIG_PPH	-.185	.192	-.160	
ALIG_OPP	.071	-.103	.045	
ALIG_MIS	-.038	-.327**	-.267*	
ALIG_CTX	-.154	-.075	-.371**	
ALIG_LXD	.167	-.138	-.066	

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

Table 10. Pearson correlations between English knowledge/learning and the average occurrence of particular answers (codes) for heavy verbs in the whole sample

	Year of study	*Year of learning*	*Proficiency test*	
Year of study	1	.022	-.046	
Year of learning	.022	1	.262**	
Proficiency test	-.046	.262**	1	
AHEA_TOP	.029	.060	.020	
AHEA_LX	-.114	-.124	.085	
AHEA_CMP	.169	-.008	.350**	
AHEA_PPH	-.021	.092	-.294*	
AHEA_OPP	-.071	.029	.008	
AHEA_MIS	-.110	-.076	-.267*	
AHEA_CTX	-.152	-.049	-.108	
AHEA_LXD	.289	.057	-.137	

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

The data also shows that with both light and heavy verbs constructions learners with lower level proficiency used at least one strategy that could be related to avoiding dealing with the meaning of the construction in a more direct way. The data on light verb constructions (see Table 9) shows negative correlation (r=-371) between language proficiency and using context to explain the meaning of PVs, and we can see in Table 10 that paraphrasing negatively correlates with language proficiency in the cases of strategic construal of PVs with heavy verbs. Also, with both light and heavy constructions, proficiency negatively correlates with misinterpretation, which means that less proficient learners are less likely to make any sense of the meaning assigned to complex structures such as PVs.

4.2.2. Results and discussion for PVs with *in*: semantic determination and proficiency (1)

For particle verb constructions with ***in***, the analysis of the data has revealed the following:

a) In the case of light verb constructions, more frequent topological determination and the higher frequency of compositional meanings are associated with learners with higher language proficiency (see correlations in table 11).
b) No statistically significant correlations have been found between language proficiency and type of determination for heavy verb constructions (see table 12).
c) Proficiency correlates negatively with two avoidance strategies only in the case of light PV constructions - more proficient learners use less contextualization and less single-word equivalents.
d) Misinterpretation correlates negatively with both light and heavy PVs.

Table 11. Pearson correlations between English knowledge/learning and the average occurrence of particular answers (codes) for light verbs in the whole sample

	Year of study	*Year of learning*	*Proficiency test*	
Year of study	1	.022	-.046	
Year of learning	.022	1	.262**	
Proficiency test	-.046	.262**	1	
ALIG_TOP	.031	-.009	.336**	
ALIG_LX	.012	-.074	.036	
ALIG_CMP	.021	-.069	.249*	
ALIG_PPH	-.107	.312**	-.081	
ALIG_OPP	.173	.012	.115	
ALIG_MIS	.104	-.103	-.447**	
ALIG_CTX	-.053	-.067	-.237*	
ALIG_LXD	-.017	-.291*	-.325**	

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

Table 12. Pearson correlations between English knowledge/learning and the average occurrence of particular answers (codes) for heavy verbs in the whole sample

	Year of study	*Year of learning*	*Proficiency test*	
Year of study	1	.022	-.046	
Year of learning	.022	1	.262**	
Proficiency test	-.046	.262**	1	
AHEA_TOP	-.017	.151	.130	
AHEA_LX	-.293*	-.187	-.021	
AHEA_CMP	.191	-.081	.242	
AHEA_PPH	.024	.268*	-.020	
AHEA_OPP	.125	-.090	.141	
AHEA_MIS	.066	-.159	-.441**	
AHEA_CTX	-.120	.085	-.030	
AHEA_LXD	.171	.060	.132	

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

4.2.3. Discussion and conclusions:

1) ***Out*** is obviously more informative than ***in,*** thus, with ***out,*** learners' answers implying topology do not depend on the learners' proficiency, i.e., topological determination does not correlate with the learners' language proficiency.
2) Conversely, topological determination in particle verb constructions with ***in*** significantly correlates with language proficiency. We may assume that the reason

for that is ***in*** being less informative. Hence, only proficient learners can make sense of the semantic contribution of the particle.

3) With light verbs, with both ***in*** and ***out***, compositionality significantly correlates with proficiency, which means that more proficient learners are generally more likely to attend to both components of the complex whole.
4) With heavy verbs, compositionality significantly correlates with proficiency only in phrasal constructions with ***out***, whereas it does not correlate significantly in PVs with ***in***, which, along with previous conclusions, might indicate that there are at least three parameters we need to consider while investigating L2 processing and meaning construal of PV constructions: a) the type of verb (light vs. heavy), b) the type of particle (degree of *informativeness*), and c) the overall language proficiency.

Thus, our hypotheses have been confirmed only partly. We may conclude that, as a factor determining strategic construal, the proficiency can only been viewed in relation to the nature of component parts in question. In our case, these are verbs and particles, i.e. aspects pertaining to the degree of their informativeness as the component elements in the composite wholes.

4.3. Type of determination and L1

4.3.1. Results for PVs with *out*: semantic determination and L1

Given the typological differences between Spanish and Croatian, as well as the above discussed differences in the nature of the verbs forming the PVs selected for this research, our hypotheses were:

a) topological determination and higher frequency of compositional meanings are expected in the Croatian learners of English;
b) lexical determination and lower frequency of compositional meanings are expected in the Mexican learners of English.

Several observable differences between Mexicans and Croats have been found:

a) with light verbs with ***out,*** compositionality is significantly more frequent in the group of Croats. Tables 13 (Croats) and 14 (Mexicans) show average frequencies of the three types of determination and other strategies in the process of meaning construal. Table 15 shows statistically significant differences between the two groups;

Table 13. Average occurrence of particular answers (codes) for light verbs in the group of Croats

		ALIG_ TOP	*ALIG_ LX*	*ALIG_ CMP*	*ALIG_ PPH*	*ALIG_ OPP*	*ALIG_ MIS*	*ALIG_ CTX*	*ALIG_ LXD*
N	Valid	36	36	36	36	36	36	36	36
	Missing	32	32	32	32	32	32	32	32
Mean		0.3384	0.0051	0.2702	0.2273	0.0505	0.1692	0.0076	0.0328
Mean %		33.84	0.51	27.02	22.73	5.05	16.92	0.76	3.28

Table 14. Average occurrence of particular answers (codes) for light verbs in the group of Mexicans

		ALIG_ TOP	*ALIG_ LX*	*ALIG_ CMP*	*ALIG_ PPH*	*ALIG_ OPP*	*ALIG_ MIS*	*ALIG_ CTX*	*ALIG_ LXD*
N	Valid	26	26	26	26	26	26	26	26
	Missing	6	6	6	6	6	6	6	6
Mean		0.2343	0.0280	0.1084	0.2867	0.0420	0.2308	0.0874	0.0245
Mean %		23.43	2.80	10.84	28.67	4.20	23.08	8.74	2.45

Table 15. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for light verbs (Mexicans vs. Croats)

		N	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	36	.3384	.22013	1.876	>0.01	
	Mexicans	26	.2343	.20917			
ALIG_LX	Croats	36	.0051	.02112	-2.203	>0.01	
	Mexicans	26	.0280	.04992			
ALIG_CMP	Croats	36	.2702	.32560	2.714	<0.01	
	Mexicans	26	.1084	.12602			
ALIG_PPH	Croats	36	.2273	.19007	-1.259	>0.01	
	Mexicans	26	.2867	.17381			
ALIG_OPP	Croats	36	.0505	.06678	.522	>0.01	
	Mexicans	26	.0420	.05881			
ALIG_MIS	Croats	36	.1692	.12129	-1.825	>0.01	
	Mexicans	26	.2308	.14370			
ALIG_CTX	Croats	36	.0076	.02548	-2.562	>0.01	
	Mexicans	26	.0874	.15742			
ALIG_LXD	Croats	36	.0328	.04933	.704	>0.01	
	Mexicans	26	.0245	.04112			

b) with heavy verbs with ***out,*** compositionality is significantly more frequent in the group of Croats and lexical determination is significantly less frequent in the group of Croats than in the group of Mexicans. Tables 16 and 17 show average frequency of determination and Table 18 shows statistically significant differences.

Table 16. Average occurrence of particular answers (codes) for heavy verbs in the group of Croats

		AHEA_ TOP	*AHEA_ LX*	*AHEA_ CMP*	*AHEA_ PPH*	*AHEA_ OPP*	*AHEA_ MIS*	*AHEA_ CTX*	*AHEA_ LXD*
N	Valid	46	46	46	46	46	45	46	46
	Missing	22	22	22	22	22	23	22	22
Mean		0.1105	0.1069	0.3605	0.2663	0.0507	0.0981	0.0326	0.0562
Mean %		11.05	10.69	36.05	26.63	5.07	9.81	3.26	5.62

Table 17. Average occurrence of particular answers (codes) for heavy verbs in the group of Mexicans

		AHEA_ TOP	*AHEA_ LX*	*AHEA_ CMP*	*AHEA_ PPH*	*AHEA_ OPP*	*AHEA_ MIS*	*AHEA_ CTX*	*AHEA_ LXD*
N	Valid	24	24	23	24	24	24	24	24
	Missing	8	8	9	8	8	8	8	8
Mean		0.0938	0.2118	0.1630	0.3125	0.0521	0.1840	0.0486	0.0035
Mean %		9.38	21.18	16.30	31.25	5.21	18.40	4.86	0.35

Table 18. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for heavy verbs (Mexicans vs. Croats)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
AHEA_TOP	Croats	46	.1105	.12675	.563	>0.01	
	Mexicans	24	.0937	.09925			
AHEA_LX	Croats	46	.1069	.12989	-3.267	<0.01	
	Mexicans	24	.2118	.12282			
AHEA_CMP	Croats	46	.3605	.30381	2.805	<0.01	
	Mexicans	23	.1630	.20640			
AHEA_PPH	Croats	46	.2663	.22813	-.864	>0.01	
	Mexicans	24	.3125	.17763			
AHEA_OPP	Croats	46	.0507	.07345	-.075	>0.01	
	Mexicans	24	.0521	.06869			
AHEA_MIS	Croats	45	.0981	.13211	-2.512	>0.01	
	Mexicans	24	.1840	.14112			

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
AHEA_CTX	Croats	46	.0326	.10165	-.597	>0.01	
	Mexicans	24	.0486	.11504			
AHEA_LXD	Croats	46	.0562	.07039	4.814	<0.01	
	Mexicans	24	.0035	.01701			

Table 19. Average occurrence of particular answers (codes) for light verbs in the group of Croats

		ALIG_ TOP	*ALIG_ LX*	*ALIG_ CMP*	*ALIG_ PPH*	*ALIG_ OPP*	*ALIG_ MIS*	*ALIG_ CTX*	*ALIG_ LXD*
N	Valid	47	47	47	47	47	47	47	47
	Missing	21	21	21	21	21	21	21	21
Mean		0.3002	0.0142	0.2175	0.2648	0.0095	0.1631	0.0378	0.0024
Mean %		30.02	1.42	21.75	26.48	0.95	16.31	3.78	0.24

4.3.2. Results for PVs with *in*: semantic determination and L1

a) With light verbs with ***in***, no significant differences were found between the two groups of learners (see tables 19 and 20 for average frequency of types of determination and table 21 for significant differences).

Table 20. Average occurrence of particular answers (codes) for light verbs in the group of Mexicans

		ALIG_ TOP	*ALIG_ LX*	*ALIG_ CMP*	*ALIG_ PPH*	*ALIG_ OPP*	*ALIG_ MIS*	*ALIG_ CTX*	*ALIG_ LXD*
N	Valid	25	25	25	25	25	25	25	25
	Missing	7	7	7	7	7	7	7	7
Mean		0.2933	0.0178	0.2444	0.2133	0.0044	0.1378	0.0578	0.0356
Mean %		29.33	1.78	24.44	21.33	0.44	13.78	5.78	3.56

Table 21. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for light verbs (Mexicans vs. Croats)

		N	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	47	.3002	.22572	.128	>0.01	
	Mexicans	25	.2933	.20000			
ALIG_LX	Croats	47	.0142	.04406	-.308	>0.01	
	Mexicans	25	.0178	.05251			
ALIG_CMP	Croats	47	.2175	.25690	-.440	>0.01	
	Mexicans	25	.2444	.22906			
ALIG_PPH	Croats	47	.2648	.21178	.988	>0.01	
	Mexicans	25	.2133	.20767			
ALIG_OPP	Croats	47	.0095	.03134	.709	>0.01	
	Mexicans	25	.0044	.02222			
ALIG_MIS	Croats	47	.1631	.16521	.633	>0.01	

		N	*Mean*	*Std. Deviation*	*t-test*	*p*	
	Mexicans	25	.1378	.15476			
ALIG_CTX	Croats	47	.0378	.09347	-.766	>0.01	
	Mexicans	25	.0578	.12472			
ALIG_LXD	Croats	47	.0024	.01621	-1.503	>0.01	
	Mexicans	25	.0356	.10981			

b) With heavy verbs with ***in,*** compositionality is significantly more frequent in the group of Croats, and lexical determination is significantly less frequent in the group of Croats than in the group of Mexicans (see Tables 22, 23 and 24).

Table 22. Average occurrence of particular answers (codes) for heavy verbs in the group of Croats

		AHEA_ TOP	*AHEA_ LX*	*AHEA_ CMP*	*AHEA_ PPH*	*AHEA_ OPP*	*AHEA_ MIS*	*AHEA_ CTX*	*AHEA_ LXD*
N	Valid	39	39	39	38	38	39	39	39
	Missing	29	29	29	30	30	29	29	29
Mean		0,073	0,107	0,440	0,213	0,013	0,137	0,030	0,006
Mean %		7,265	10,684	44,017	21,272	1,316	13,675	2,991	0,641

Table 23. Average occurrence of particular answers (codes) for heavy verbs in the group of Mexicans

		AHEA_ TOP	*AHEA_ LX*	*AHEA_ CMP*	*AHEA_ PPH*	*AHEA_ OPP*	*AHEA_ MIS*	*AHEA_ CTX*	*AHEA_ LXD*
N	Valid	20	20	20	20	20	20	20	20
	Missing	12	12	12	12	12	12	12	12
Mean		0,0667	0,3125	0,2292	0,1708	0,0042	0,1583	0,0625	0,0000
Mean %		6,67	31,25	22,92	17,08	0,42	15,83	6,25	0,00

Table 24. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for heavy verbs (Mexicans vs. Croats)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
AHEA_TOP	Croats	39	,0726	,09782	,233	>0,01	
	Mexicans	20	,0667	,08377			
AHEA_LX	Croats	39	,1068	,13238	-5,232	<0.01	
	Mexicans	20	,3125	,16194			
AHEA_CMP	Croats	39	,4402	,25503	3,346	<0.01	
	Mexicans	20	,2292	,16639			
AHEA_PPH	Croats	38	,2127	,20930	,770	>0,01	
	Mexicans	20	,1708	,16987			
AHEA_OPP	Croats	38	,0132	,03079	1,193	>0,01	
	Mexicans	20	,0042	,01863			
AHEA_MIS	Croats	39	,1368	,14369	-,541	>0,01	

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
	Mexicans	20	,1583	,14784			
AHEA_CTX	Croats	39	,0299	,08862	-1,127	>0,01	
	Mexicans	20	,0625	,13211			
AHEA_LXD	Croats	39	,0064	,02250	1,780	>0,01	
	Mexicans	20	,0000	,00000			

4.3.3. Discussion and conclusions for semantic determination and L1

If we compare the data for ***out*** discriminating light and heavy verbs in the whole sample (see section 4.1) with the data relating to the participants' L1, we can see that compositionality is again an important aspect of meaning construal. In the whole sample, compositionality was a significantly more predictable pattern in PVs with heavy verbs, whereas in the Croatian sample (vs. the Mexican sample) it is more frequent in the strategic construal of both light and heavy PVs.

Furthermore, in the whole sample, lexical determination was found to be significantly more frequent with heavy PVs. However, the data comparing Croatian and Mexican samples shows that lexical determination is significantly less frequent in the group of Croats than in the group of Mexicans.

As for the data for ***in***, no significant differences between the two groups were found in the construal of light PVs, whereas the construal of heavy PVs shows the same tendencies that were found for the heavy PVs with ***out***, i.e., compositionality is significantly more frequent and lexical determination significantly less frequent in the Croatian sample.

The reason why no significant differences were found between the Croats and Mexicans in their strategic construal of light PVs with ***in*** could be attributed to the following two factors:

a) the particle ***in*** has proved to be generally less informative than ***out***;

b) the schematicity of light verbs is less likely to lead towards a more compositional meaning construal.

Thus, irrespective of potentially compositionality-biased L1 elements, such as the existence of meaningful verbal prefixes in Croatian, the vagueness of the verb and the non-informativeness of the particle make the composite whole equally "complex" for the both groups. However, with heavy verbs with both ***in*** and ***out,*** and with light verbs with

out, the Croatian participants seem to construct meaning differently. They tend to attend to both parts of the composite whole much more frequently than their Mexican counterparts, and they rely less on the lexical part of the PV construction. We wish to suggest that one of the key factors affecting and shaping this kind of tendency in their strategic construal is the fact that the Croatian language exhibits duality in terms of how it expresses the core schema, i.e., it uses satellites in the form of prefixes, even though it often behaves like a verb-framed language such as Spanish. In the case of the strategic construal of PV constructions, Croatian prefixes functioning as satellites are likely to facilitate meaningful recognition of the role of particles in English. Even though various avoidance issues have been discussed in SLA research, typological similarities pertaining to the event structure between Slavic and Germanic languages seem to have been ignored.

Now, let us briefly recapitulate what has been suggested and concluded about the nature of strategic construal of PVs:

1) it depends on the type of verb (light vs. heavy);
2) it depends on the degree of informativeness of the particle;
3) it is affected by the level of learners'/speakers' proficiency;
4) it is affected by the learners'/speakers' L1.

However, we believe that there are many other variables influencing various aspects of meaning construal in L2. In the sections that follow, we are going to reconsider the role of proficiency and tackle several issues related to the other two learning variables.

As mentioned in the introduction, there are three variables related to the general language knowledge of the participants: a) their academic year of study, b) years of learning English as L2, and c) their score in the proficiency test. There is no statistically significant difference in their scores on the language proficiency test or in the number of years of learning English. However, there is a significant difference in the year of study ($t=3.89$; $p<0.01$). The Croats were on average in their 4th year of study ($M=3.37$) when the research was conducted, whereas the Mexicans were in their 3rd year ($M=2.59$). There is another important difference between the two groups and that is high standard deviation ($M=10.94$; $sd=5.08$) in the years of learning English found in the group of Mexicans (see table 9).

Before discussing the role of the years of learning and the year of study, we are going to present the results related to re-examining the differences pertaining to the score in the proficiency test. In order to double-check the score, we decided to find out if the proficient Mexicans and the proficient Croats, and the less proficient Mexicans and the less proficient Croats show similar tendencies in their meaning construal as the Mexicans and the Croats in the whole sample. The section that follows discusses the results obtained for the above mentioned groups.

4.4. Type of determination and learners' proficiency (2)

4.4.1. Results for PVs with *out*: semantic determination and proficiency (2)

We decided on two breaking points in the score[46] on the proficiency test (68% and less was taken as the score for the less proficient, and 78% and more was taken as the score for the proficient), and we compared the proficient Croats with the proficient Mexicans and the less proficient Croats with the less proficient Mexicans. Here is what we have found:

With light verbs with *out*, it was found that:

c) there are no significant differences between the less proficient Croats and the less proficient Mexicans (see Table 25);
d) compositionality is significantly more frequent in the group of the proficient Croats than in the group of the proficient Mexicans (see table 26);

With heavy verbs with *out*, it was found that:

e) there are no significant differences between the less proficient Croats and the less proficient Mexicans (see table 27);
f) there are no significant differences between the proficient Croats and the proficient Mexicans (see table 28);

[46] All statistical data and "strategic" decisions were confirmed and double-checked by my colleague Toni Babarović, a great statistician to whom I am truly grateful.

Table 25. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for light verbs (**the less proficient** Mexicans and Croats)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	10	.3000	.13586	1.268	>0.01	
	Mexicans	13	.2028	.21045			
ALIG_LX	Croats	10	.0091	.02875	-1.247	>0.01	
	Mexicans	13	.0280	.04367			
ALIG_CMP	Croats	10	.1091	.19545	.394	>0.01	
	Mexicans	13	.0839	.10796			

Table 26. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for light verbs (**the proficient** Mexicans and Croats)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	19	,3397	.25505	893	>0.01	
	Mexicans	9	,2525	.20719			
ALIG_LX	Croats	19	,0000	.00000	-1.512	>0.01	
	Mexicans	9	,0202	.04009			
ALIG_CMP	Croats	19	,3971	.35496	2.966	<0.01	
	Mexicans	9	,1313	.11237			

Table 27. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for heavy verbs (**the less proficient** Mexicans and Croats)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	12	,1111	.11422	1.013	>0.01	
	Mexicans	10	,0667	.08607			
ALIG_LX	Croats	12	,0764	.10334	-2.779	>0.01	
	Mexicans	10	,2083	.11948			
ALIG_CMP	Croats	12	,2639	.26551	1.753	>0.01	
	Mexicans	10	,1000	.14055			

Table 28. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for heavy verbs (**the proficient** Mexicans and Croats)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	21	.0952	.10956	-.426	>0,01	
	Mexicans	8	.1146	.10854			
ALIG_LX	Croats	21	.1310	.15040	-1.305	>0,01	
	Mexicans	8	.2083	.11785			
ALIG_CMP	Croats	21	.5079	.32586	2.207	>0,01	
	Mexicans	8	,2292	,23038			

4.4.2. Results for PVs with *in*: semantic determination and proficiency (2)

With light verbs with *in,* it was found that:

c) there are no significant differences between the less proficient Croats and their Mexican counterparts (see Table 29);

d) there are no significant differences between the proficient Croats and the proficient Mexicans (see table 30);

With heavy verbs with *in,* it was found that:

e) there is a significant difference in lexical determination (t=-3.025; p<0.01) between the two groups. There is less lexical determination found in the group of the less proficient Croats (M=.0833) than in the group of the less proficient Mexicans (M=.2639), and there is more compositionality found in the group of Croats (M=.4236) than in the group of Mexicans (M=.1250), (t=3.120; p<0.01) (see Table 31).

f) there is a significant difference in lexical determination in favour of Mexicans (t=-4.633; p<0.01), and a significant difference in compositionality in favour of Croats (t=3.721; p<0.01) in the groups of the proficient Mexicans and Croats (see Table 32).

Table 29. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for light verbs (**the less proficient** Croats and Mexicans)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	15	.2222	.16798	1.392	>0.01	
	Mexicans	10	.1333	.13659			
ALIG_LX	Croats	15	.0074	.02869	-.289	>0.01	
	Mexicans	10	.0111	.03514			
ALIG_CMP	Croats	15	.1037	.18047	-2.085	>0.01	
	Mexicans	10	.3000	.29187			

Table 30. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for light verbs (**the proficient** Croats and Mexicans)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	19	.3626	.27177	-.377	>0.01	
	Mexicans	8	.4028	.19642			
ALIG_LX	Croats	19	.0175	.04163	-.445	>0.01	
	Mexicans	8	.0278	.07857			
ALIG_CMP	Croats	19	.3860	.29250	1.937	>0.01	
	Mexicans	8	.2222	.14548			

Table 31. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for heavy verbs (**the less proficient** Croats and Mexicans)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	12	,0556	,07397	,843	>0,01	
	Mexicans	6	,0278	,04303			
ALIG_LX	Croats	12	,0833	,10050	-3,025	<0,01	
	Mexicans	6	,2639	,15290			
ALIG_CMP	Croats	12	,4236	,21159	3,120	<0,01	
	Mexicans	6	,1250	,13693			

Table 32. Descriptive statistics and mean differences for average occurrence of particular answers (codes) for heavy verbs (**the proficient** Croats and Mexicans)

	HR_MEX	*N*	*Mean*	*Std. Deviation*	*t-test*	*p*	
ALIG_TOP	Croats	16	,0833	,11785	0,429	>0,01	
	Mexicans	9	,0648	,06944			
ALIG_LX	Croats	16	,1094	,13165	-4,633	<0,01	
	Mexicans	9	,3889	,16667			
ALIG_CMP	Croats	16	,5677	,25316	3,721	<0,01	
	Mexicans	9	,2222	,15023			

4.4.3. Discussion and conclusions for semantic determination and proficiency (2)

1) With light verbs with ***out***, in the group of proficient speakers, the Croats and the Mexicans exhibit the same difference as the groups of Mexicans and Croats in the whole sample, that is, compositionality is significantly more frequent in the group of the proficient Croats. It is also important to note that the higher frequency of compositionality significantly correlates with language proficiency in the whole sample.

2) With heavy verbs with ***in***, in the groups of both the proficient speakers and the less proficient speakers, the Croats and the Mexicans exhibit the same differences as the groups of Mexicans and Croats in the entire sample, that is, compositionality is significantly more frequent in the group of proficient Croats whereas lexical determination is significantly less frequent in this group than in the group of proficient Mexicans. Both higher compositionality and lower frequency of lexical determination correlate with language proficiency in the whole sample.

Having reconsidered the above described tendencies, we can conclude that the Croats, in comparison with the Mexicans, consistently exhibit differences that were initially found significant for the proficient learners in the whole sample.

However, as already mentioned, there is no significant difference in the results on the proficiency test between the two groups, so it is necessary to look at other factors that are likely to account for the differences between the Croats and the Mexicans. We proceed by analyzing the following two language external factors:

a) a statistically significant difference in the year of study ($t=3.89$; $p<0.01$) between the Mexicans and the Croats;

b) a considerably high standard deviation ($M=10.94$; $sd=5.08$) in the years of learning English in the group of Mexicans.

4.5. Type of determination, years of learning and year of study

In order to find out more specific differences within the two groups we decided to look at the frequencies of the years of learning and the year for the Croats and the Mexicans separately. It was established that all Croatian participants were in their 3rd or 4th year of study when the research was conducted (see Table 33).

Table 33. Frequencies for the year of study in Croatian sample

		Frequency	*Percent*	*Valid Percent*	
Valid	3	43	63,2	63,2	
	4	25	36,8	36,8	
	Total	68	100,0	100,0	

More than 50% of them had been learning English for 12 or 13 years and an additional 16.2% had been learning English for 11 or 14 years, which makes the Croatian part of the sample quite a homogeneous group in terms of their years of learning English as L2 (see Table 34).

Table 34. Frequencies for the years of learning in Croatian sample

		Frequency	*Percent*	*Valid Percent*	
Valid	7	1	1,5	1,5	
	8	3	4,4	4,4	
	9	2	2,9	2,9	
	11	7	10,3	10,3	
	12	19	27,9	27,9	
	13	18	26,5	26,5	
	14	4	5,9	5,9	
	15	5	7,4	7,4	
	16	5	7,4	7,4	
	17	1	1,5	1,5	
	18	1	1,5	1,5	
	19	1	1,5	1,5	
	20	1	1,5	1,5	
	Total	68	100,0	100,0	

On the other hand, in the Mexican group, there were students from all four years of study[47], 14 from the first two years and 18 from the second two years (see Table 35). In addition to that, there is a great variability in the number of years of learning English (see Table 36).

Table 35. Frequencies for the year of study in Mexican sample

		Frequency	*Percent*	*Valid Percent*	
Valid	1	5	15.6	15.6	
	2	9	28.1	28.1	
	3	15	46.9	46.9	
	4	3	9.4	9.4	
	Total	32	100.0	100.0	

[47] As already mentioned, the problem with the Mexican part of the sample was that the year of study in Mexico does not necessarily guarantee particular language proficiency. The reason for that is the system in which a pass in the courses related to language, grammar and translation is not necessarily a precondition for proceeding to a higher academic year (most preconditions are related to literary courses). Thus, the participants chosen for the research were a group of students attending a particular course (called Language exercises 6) in which they had been placed according to their language proficiency. However, they were still a very heterogeneous group.

Table 36. Frequencies for the years of learning in Mexican sample

Years of learning	*Frequency*	*Percent*	*Valid Percent*	
3	1	3,1	3,1	
4	1	3,1	3,1	
5	4	12,5	12,5	
6	1	3,1	3,1	
7	2	6,3	6,3	
8	2	6,3	6,3	
9	2	6,3	6,3	
10	3	9,4	9,4	
11	2	6,3	6,3	
12	1	3,1	3,1	
13	2	6,3	6,3	
14	4	12,5	12,5	
15	2	6,3	6,3	
16	3	9,4	9,4	
18	1	3,1	3,1	
27	1	3,1	3,1	
Total	32	100,0	100,0	

There is practically no discernable pattern in the group. The largest two groups consist of only 4 participants, with students who had studied English for either 5 or 14 years. Finally, if we now consider the years of learning and calculate the age at which the two groups started learning English as a second language, we shall see that in the Croatian part of the sample the most frequent age is 9 or 10 (4th grade, primary school). As many as 50 Croatian students, out of the total of 68, started learning English at this age. There are only 10 students who started learning English at the age of 6 or 7 (1st grade, primary school) and 8 students started learning English at the age of 14 or 15 (1st grade, secondary school) (see Table 37). On the other hand, the Mexicans exhibit much more diversity in terms of the number of years they had been learning English, as well as the age at which they started learning it. There are 5 students who started learning English under the age of 6, which corresponds to pre-school in both Mexican and Croatian educational systems. On the other hand, there are 5 students who started learning English after the age of 12 (junior high school in Mexico) (see table 38), whereas there are only three such students in the Croatian sample.

Table 37. Years of learning, age, and the age of starting L2 for Croats

Research codes for Croats	years of learning	age	L2 start
67	13	22	9
66	13	21	8
50	13	22	9
65	7	21	14
49	11	20	9
48	9	20	11
47	12	21	9
37	12	22	10
31	13	22	9
33	9	21	12
34	13	22	9
35	12	22	10
36	12	20	8
61	13	22	9
41	13	23	10
42	12	22	10
43	12	21	9
44	12	22	10
45	13	22	9
46	17	23	6
51	8	21	13
52	14	22	8
53	12	22	10
54	13	23	10
55	13	23	10
56	20	24	4
57	13	23	10
58	12	22	10
59	13	23	10
60	15	22	7
62	12	22	10
63	16	23	7
64	12	22	10
21	16	23	7
22	13	23	10
23	8	22	14
24	12	22	10
25	13	22	9
26	15	22	7
27	11	21	10
28	13	22	9
32	12	22	10
38	15	25	10
39	12	22	10
40	12	22	10
1	13	23	10
2	19	29	10
3	13	23	10
4	14	23	9
5	14	24	10
6	12	21	9
7	8	22	14
8	16	22	6

Research codes for Croats	years of learning	age	L2 start
9	12	21	9
10	13	22	9
11	11	21	10
12	12	22	10
13	12	22	10
14	16	22	6
15	11	21	10
16	13	23	10
17	11	21	10
18	11	21	10
19	16	23	7
20	13	23	10
29	18	25	7
30	15	25	10
68	16	22	6

Table 38. Years of learning, age, and the age of starting L2 for Mexicans

Research codes for Mexicans	years of learning	age	start
85	14	20	6
86	9	22	13
87	14	25	11
88	11	20	9
84	16	20	4
83	10	21	11
82	16	20	4
81	13	20	7
80	8	26	8
79	7	20	13
78	15	20	5
77	10	20	10
76	16	20	4
75	12	29	17
74	14	19	5
73	14	20	6
69	5	19	14
70	5	20	15
100	15	20	5
98	8	27	9
97	13	23	10
95	6	24	18

Research codes for Mexicans	years of learning	age	start
94	10	24	14
99	27	28	1
89	4	25	21
91	5	22	17
90	11	20	9
92	9	21	12
93	7	21	14
71	3	19	16
96	5	20	15
72	18	23	5

Thus, it is reasonable to assume that even though the Croats do not significantly differ from the Mexicans in their general language proficiency, their knowledge might be more structured, and their learning strategies and their metacognition more developed. In the group of Mexicans there were students who had started learning English as early as age 4 or 5, but there were also students who were English majors with only 3-6 years of learning English, including the years they had spent at university. In the group of Croats, there were only 6 students who had learned English for less than 11 years, and the minimum years of learning was 7.

Before concluding, let us mention another important aspect related to the above mentioned learning strategies. As suggested in the introduction, a number of SLA studies have shown that learners of English avoid phrasal verbs, especially those learners whose L1 does not have similar constructions. Furthermore, it has been found that even when L1 has phrasal verbs (like, e.g., Dutch), learners use the so called play-it-safe strategies, preferring, for instance, one-word verbs with more general meanings over phrasal verbs with specific and very idiomatic meanings. What we wish to suggest is that these play-it-safe strategies are tightly related to affective factors in SLA, and we believe that it is exactly this relation between cognitive and affective factors that might have also played an important role in our research. The circle connecting cognitive and affective factors in SLA is a vicious one. Affective factors such as language anxiety interfere with cognitive processing and language learning in general (see footnote 38 for relevant work). Less proficient learners/speakers of L2 are afraid to cope with a variety of language problems

because they feel they are too difficult for them. The fact that they are less willing to tackle the problems makes them less likely to learn and expand their knowledge. Thus, the circle is complete because their (lack of) knowledge interferes with their disposition to solve problems. This might partly explain why the more proficient participants in our sample described the meaning of PVs by making references to compositionality - they were not afraid to analyze and decompose the structure in order to explain it.

The same relation between the affective and cognitive factors might be responsible for the difference between the Mexicans and the Croats. The variability in the years of learning English and the age they started learning it point to the fact that language learning is less structured and less uniformed in Mexico than it is in Croatia. As early as age 10/11, the Croats start analyzing both their L1 and L2, and they learn to think and talk about language. On the other hand, in Mexico the situation is considerably less structured. There are both public and private schools. English in public schools is rather basic (the highest level acquired by a public school graduate is around pre-intermediate), whereas English in private schools is not simply a subject taught but often a medium used to teach other subjects.[48]

Having analyzed all the data pertaining to the overall semantic determination, we wish to finish this discussion by suggesting two major groups of factors affecting the process of meaning construal of PVs in L2:

1) language internal factors pertaining to L2 (light vs. heavy verbs, and the degree of informativeness of particles) and language internal factors pertaining to both L1 and L2 (verb-framed vs. satellite-framed languages);
2) language external factors (general language proficiency, years of learning L2, and various aspects of the learning environment conducive to

[48] Another factor that might have played a role in our research is language aptitude. According to Carroll (1965) it should be seen as a stable factor, perhaps even innate, and it consists of the following: a) phonemic coding ability, b) grammatical sensitivity, c) inductive language learning ability and d) rote learning ability. Skehan's (1986, 1989, 2002) research results have suggested that there are two kinds of learners: those who are grammatically sensitive and demonstrate finely-tuned inductive language learning ability, and others who are strong on memory and 'chunk learning'. Thus, there are two basic types of language learners, analytic and memory-oriented. However, we believe that all the abilities mentioned can be moderated or/and enhanced through training and education, and it is our assumption that the two educational systems our participants come from have partly shaped the way they use language, view language, and solve language problems.

developing learning strategies, e.g. the early start and continuity in learning).

4.6. Concluding remarks

In terms of the scope of the present study and our starting assumptions, we can conclude the following:

1) learners of English find both lexicon and grammar meaningful, and they are aware of the symbolic nature of language;
2) the nature of both verbs and particles affects the predictability of the overall semantic determination;
3) both proficiency and L1 play an important role in the area of explicit knowledge of language.

In terms of the more specific hypotheses, we can conclude that:

a) topological determination is more readily expected with PVs containing light lexical parts;
b) lexical determination is more readily expected with PVs containing heavy lexical parts;
c) compositionality correlates positively with PVs containing heavy lexical parts, and the correlation is significant with PVs with both *in* and *out*;
d) topological determination correlates with language proficiency but only with light PVs with *in*;
e) compositionality correlates significantly with language proficiency in the case of light PVs with both *in* and *out*, and in the case of heavy PVs with *out.*
f) with both light and heavy PVs with *out*, compositionality is significantly more frequent in the group of Croats, but with PVs with *in*, it is significantly more frequent only in the case of heavy verbs;
g) no significant difference between the Croats and the Mexicans was found in relation to topological determination;
h) lexical determination is significantly higher in the group of Mexicans, but only with heavy PVs with both *in* and *out.*

In sum, the strategic construal of PVs implies a complex and dynamic process that varies along various parameters. The present study has confirmed that the interplay determining the construal of PVs involves (at least) the following:

a) the factors pertaining to the nature of both verbs and particles;
b) the aspects of the learners' proficiency and L1;
c) other factors (e.g. the early start and continuity in learning) that are likely to contribute to developing strategies facilitating the learning process.

In the chapter that follows, we discuss the construal of particles. Having examined all the data and having processed all the aspects related to the type of determination, we investigated the extent to which the construal of particles in English as L2 can be compared to their construal in English as L1. More specifically, we aimed to find out whether the learners' construal of particles shows the much debated cognitively motivated path from the topological to the aspectual.

4.7. Construal of particles

4.7.1. Results for verb groups

In order to discuss specific construals of particles, we first grouped the meanings of all the PVs used in the research. Initially, there were six groups: static topology (G1), processual topology (G2), static topology (abstract) (G3), processual topology (abstract) (G4), aspect (termination) (G5), and aspect (inception) (G6). After the data was validated, two groups were found irrelevant, thus we were left with the following groups of meanings:

1) Processual topology (concrete) (G2): *put out* ('to injure your back, shoulder or hip'); *go in* ('become hidden'); *take in* ('make a piece of clothing narrower or tighter'); *call out* ('ask somebody to come and help you when there is an emergency'); *cut out* ('prevent something from reaching somewhere'); *break out* ('become covered in something); *break out* ('escape'); *shut out* (' stop something from entering'); *call in* ('send for somebody professional and official'); *call in* ('make a short visit, usually on the way to another place'); *break in* ('to wear

something until it is comfortable'); *draw in* ('become dark earlier as winter approaches'); *pull in* ('move to the side of the road to stop'); *shut in* ('trap or injure something by closing something tightly around it'); *write in* ('write to ask or complain').

2) Processual topology (abstract) (G4): *take out* ('kill somebody'); *take out* ('obtain an official document or a service'); *put out* ('make somebody go to sleep or unconscious'); *put out* ('broadcast, publish or issue'); *put out* ('make a figure, result etc. wrong); *put out* ('make trouble, problems or extra work'); *go in* ('be understood'); *take in* ('make somebody believe something that is not true'); *take in* ('understand or absorb something'); *put in* ('officially make a claim'); *put in* ('to spend time or effort doing something'); *put in* ('interrupt'); *put in* ('elect political party as the government'); *draw out* ('make somebody feel less nervous or shy'); *draw out* ('make something last longer'); *pull out* ('stop being involved in something'); *shut out* (' refuse to allow a person to share your thoughts or feelings'); *call in* ('make a public request for a product to be returned'); *cut in* ('interrupt somebody's conversation'); *break in* (' interrupt a conversation'); *break in* ('get somebody accustomed to something new'); *pull in* ('attract people in large numbers').
3) Aspect (termination) (G5): *go out* ('stop burning'); *go out* ('stop being fashionable'); *put out* ('switch something off'); *put out* ('extinguish, stop from burning'); *cut out* ('stop working'); *cut out* ('stop doing something'); *write out* ('write something and include all the necessary information').
4) Aspect (inception) (G6): *break out* ('begin suddenly').

As already mentioned in the chapter dealing with research methodology, each answer was first labelled with a general code referring to the type of determination (or another general code if determination could not be defined). In the cases of topological determination and compositionality, the answer was also given a numerical code denoting the meaning of the topological part of the construction. In the results that follow, PC+No stands for the coding of the particle. The percentage in the brackets shows the number of answers that contain explanations of the particle stated after the colon.

4.7.2. Strategic construal of *out* – results

In this section we list the types of strategic construal of *out* for each group of meanings outlined in the previous section. When first mentioned, all the construal types are accompanied with the reference related to their construal in L1 (if such construal was previously mentioned or described), and followed by a schematic pictorial representation. A detailed discussion follows in section 4.7.3.

1) For the first relevant group of meanings (G2 = processual topology - concrete) the meaning of *out* was construed as follows:

a) PC1 - processual topology (concrete/physical) (11.50%). *Out* is**:** going out or leaving an enclosed space; going out of anything that surrounds you or confines you; going our or leaving a container (human bodies, houses, buildings, drawers, etc) – very literal, physical, and concrete images (cf. section *2.2.5.1* for the construal in L1).
The meaning could be schematically shown in the following way:

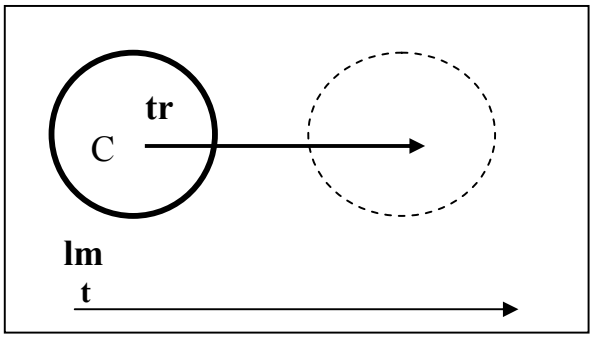

Figure 17. Strategic construal of *out* – processual topology (1)

b) PC3 - static topology (concrete/physical) – out of our dominion or out of the 'usual' place (12.10%). *Out* is: out of where we are; out of our world; out of our reach; out of normal position; out of its place; displaced; out of its physical boundaries; out of its physical limits (cf. section *2.2.5.2* for the construal in L1). See Figure 18.

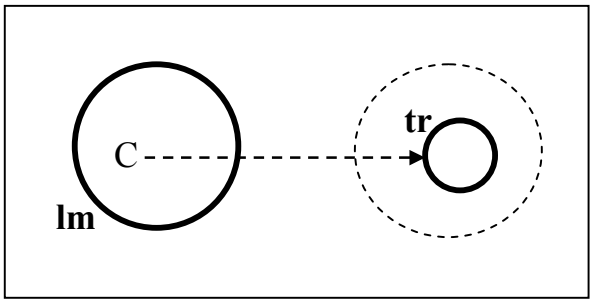

Figure 18. Strategic construal of *out* – static topology (1)

c) PC2 abstract topology (static displacement/change of state) (3.25%). *Out* is: out of the previous state; out of the previous activity; out of the original state; out of the normal state; out of routine; out of the usual; out of order; out of circuit; out of what is expected or correct (cf. section *2.2.5.4* for the construal in L1). The change of state implied in the above described construal could be graphically approximated in the following way:

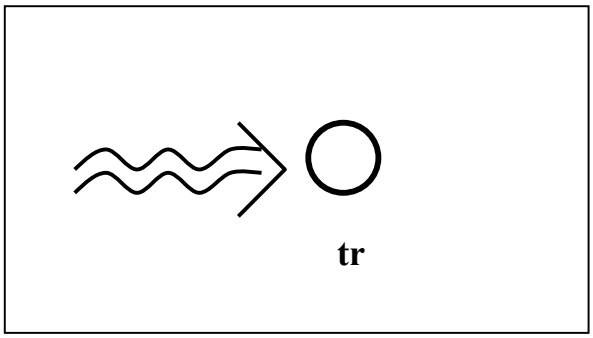

Figure 19. Strategic construal of *out* – change of state

d) PC4 (0.2%) - *out* is: absence; absent; isolation; not present; not here; not seen; not visible (cf. section *2.2.5.4* for the construal in L1). See Figure 20.

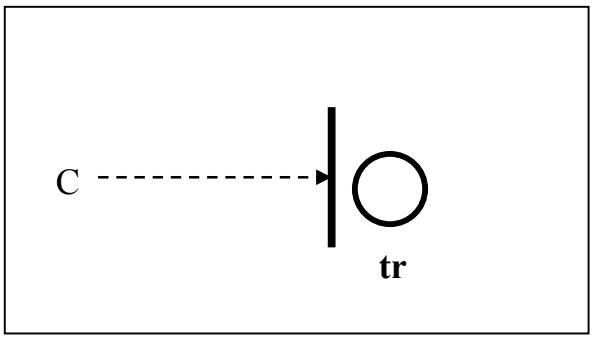

Figure 20. Strategic construal of out – invisibility & inaccessibility

e) PC5 - processual topology without direct reference to the container (1.0%). *Out* is: disappear; disappearing; leaving (cf. section *2.2.5.7* for the construal in L1). See Figure 21.

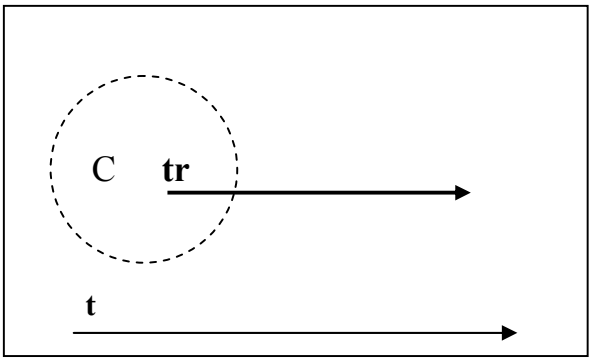

Figure 21. Strategic construal of *out* – processual topology (2)

f) PC7 aspectual (termination) (1.20%) - *out* is: something finished; something ended; end; completely; completely stopping; termination; all of something (cf. section *2.2.5.6* for the construal in L1). See Figure 22.

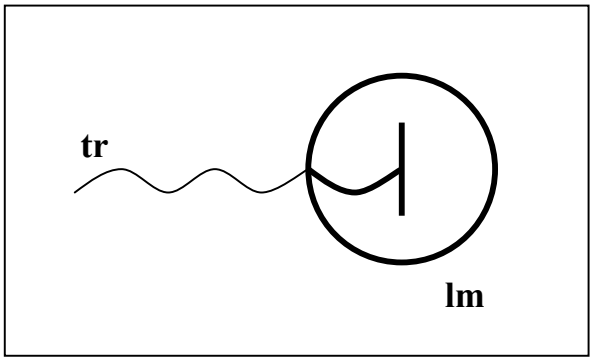

Figure 22. Strategic construal of *out* – aspect (termination)

g) PC9 static topology (both concrete and abstract) - focus on the space outside our immediate dominion (7.55%). *Out* is: outside, «out» where other people are; visible; not hidden; out in the open; out in the larger area; out in all directions or surrounding space (cf. section *2.2.5.4* for the construal in L1). The construal is shown in Figure 23.

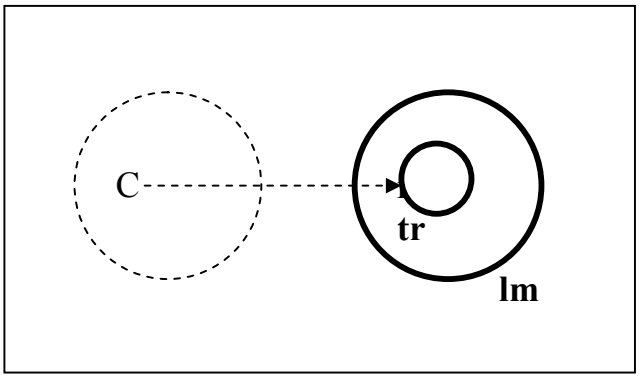

Figure 23. Strategic construal of *out* – static topology (2)

h) PC12 (0.6%) – established metaphor. *Out* is: out of the group; not belonging; free; freedom; something discarded; something unacceptable; something negative (cf. section *2.2.5.4* for the construal in L1). See Figure 24.

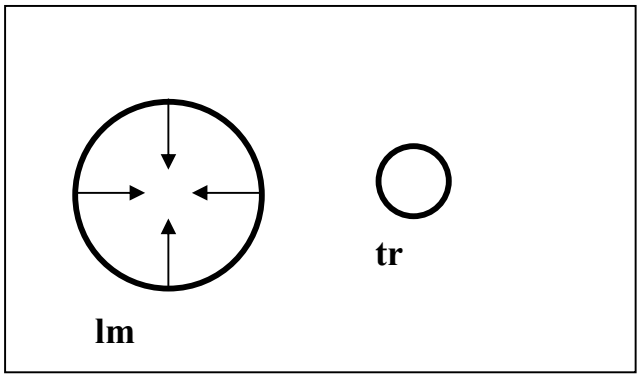

Figure 24. Strategic construal of *out* – 'out of the group'

i) PC14 (2.7%): there is some kind of reverse viewing; change of focus.

2) The second group of meanings is G4 (processual topology - abstract). The meaning of *out* was construed as follows:

a) PC1 - processual topology (concrete/physical) (6.51%). *Out* is: going out or leaving an enclosed space; going out of anything that surrounds you or confines you; going our or leaving a container (human bodies, houses, buildings, drawers, etc) – very literal, physical, and concrete images (see Figure 17).

b) PC3 - static topology (concrete/physical) – out of our dominion or out of the 'usual' place (5.61%). *Out* is: out of where we are; out of our world; out of our reach; out of normal position; out of its place; displaced; out of its physical boundaries; out of its physical limits (see Figure 18).

c) PC2 abstract topology (static displacement) (17.64%). *Out* is: out of the previous state; out of the previous activity; out of the original state; out of the normal state; out of routine; out of the usual; out of order; out of circuit; out of what is expected or correct (see Figure 19).

d) PC4 (0.87%) - *out* is**:** absence; absent; not present; not here; isolation; not seen; not visible (see Figure 20).

e) PC5 - processual without direct reference to the container (0.55%). *Out* is: disappear; disappearing; leaving (see Figure 21).

f) PC7 aspectual (termination) (0.73%) - out is: something finished; end; ended; completely; completely stopping; termination; all of something (see Figure 22).

g) PC9 static topology (both concrete and abstract) focus on the space outside our immediate dominion (8.28%). Out is: outside, «out» where other people are; visible; not hidden; out in the open; out in the larger area; out in all directions or surrounding space (see Figure 23).

h) PC12 (1.13%) – established metaphor. *Out* is: out of the group; not belonging; free; freedom; something discarded; something unacceptable; something negative (see Figure 24).

i) PC14 (5.41%) - there is some kind of reverse viewing (change of focus): the meaning of *out* in e.g. *take out* meaning 'kill' is interpreted in two ways*:* a) 'a person is taken out of life', or b) 'life is taken out of a person's body, or, e.g., in *draw out* meaning 'make less nervous or shy' *out* is: a) 'out of the state of nervousness, or b) 'nervousness taken out of the body'.

3) For the <u>third</u> group PV meanings (G5 = aspectual - termination), the construal of the particle is:

a) PC1 - processual topology (concrete/physical) (3.97%). *Out* is: going out or leaving an enclosed space; going out of anything that surrounds you or confines you;

going our or leaving a container (human bodies, houses, buildings, drawers, etc) – very literal, physical, and concrete images (see Figure 17).

b) PC3 - static topology (concrete/physical) – out of our dominion or out of the 'usual' place (6.51%). *Out* is: out of where we are; out of our world; out of our reach; out of normal position; out of its place; displaced; out of its physical boundaries; out of its physical limits (see Figure 18).

c) PC2 - abstract topology (static displacement) (8.10%). *Out* is: out of the previous state; out of the previous activity; out of the original state; out of the normal state; out of routine; out of the usual; out of order; out of circuit; out of what is expected or correct (see Figure 19).

d) PC4 (3.94%) - *out* is: absence; absent; not present; not here; isolation; not seen; not visible (see Figure 20).

e) PC5 - processual without direct reference to the container (2.06%). *Out* is: disappear; disappearing; leaving (see Figure 21).

f) PC7 - aspectual (termination) (11.61%) - *out* is: something finished; end; ended; completely; completely stopping; termination; all of something (see Figure 22).

g) PC8 (0.43%) – *out* emphasizes the action.

h) PC9 - static topology (both concrete and abstract) focus on the space outside our immediate dominion (1.14%). *Out* is: outside, «out» where other people are; visible; not hidden; out in the open; out in the larger area; out in all directions or surrounding space (see Figure 23).

i) PC12 (1.0%) – established metaphor. Out is: out of the group; not belonging; free; freedom; something discarded; something unacceptable; something negative (see Figure 24).

j) PC14 (2.43%): there is some kind of reverse viewing (change of focus).

4) For the fourth group of PV constructions (G6 – aspectual – inception) the following construals of *out* have been found:

a) PC1 - processual topology (concrete/physical) (7.61%). *Out* is: going out or leaving an enclosed space; going out of anything that surrounds you or confines you; going out or leaving a container (human bodies, houses, buildings, drawers, etc) – very literal, physical, and concrete images (see Figure 17).

b) PC2 - abstract topology (static displacement) (3.26%). *Out* is: out of the previous state; out of the previous activity; out of the original state; out of the normal state; out of routine; out of the usual; out of order; out of circuit; out of what is expected or correct (see Figure 18).

c) PC9 - static topology (both concrete and abstract) focus on the space outside our immediate dominion (11.96%). *Out* is: outside, «out» where other people are; visible; not hidden; out in the open; out in the larger area; out in all directions or surrounding space (see Figure 23).

d) PC13 - aspectual (inception) (7.61%). *Out* is: the action starts; the activity is in effect; things are in effect; things are in existence; things begin (cf. section *2.2.5.7* for the construal in L1). See Figure 24 below.

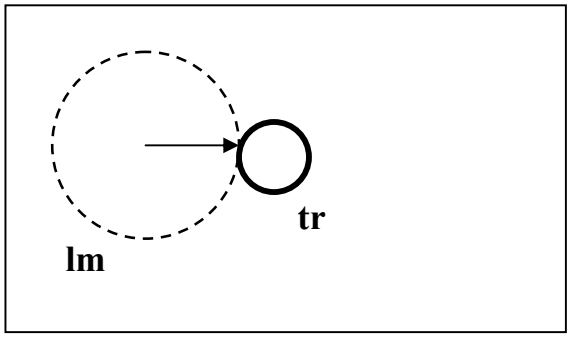

Figure 25. Strategic construal of *out* – aspect (inception)

4.7.3. Strategic construal of *out* – discussion

For the group of PV meanings labelled G2 (see section 4.7.1), 11.50% of the answers implied concrete processual topology (PC1), which means that their strategic construal of the particle corresponds to our (i.e. researchers'/linguists') construal of the whole PV construction. This strategic construal overlaps with the prototypical meaning of *out* outlined in section *2.2.5.1*.

It should be repeated here that our selection of PVs was based on the triangulation study whose aim was to discriminate literal from metaphoric meanings. All the PVs used in the research were those whose rating had showed tendencies towards the metaphoric. However, even within that PV sample certain meanings were conducive to particles being construed as implying concrete, physical process and topology. This is more than evident in the group of meanings discussed in this section.

The second type of strategic construal (PC3), and the most frequent one (12.10%), points to a more static construal of the particle. It relates to the static aspect of the particle described in section *2.2.5.2*. Now, if we consider the fact that we are dealing with the construal of particles in the cases of both topological determination and compositional meanings, this particular construal of the particle might be interpreted in two ways. First, if this static topology refers to the previously established topological determination, it suggests that, in the process of constructing meaning, a certain number of learners more readily attend to the resultant stage of the event described ('out of our world', 'out of our

reach', 'out of normal position', etc.). Second, if the static topology refers to the construal of the particle in the cases of established compositionality, it suggests that the verb denotes the process and the particle denotes the final stage.

The same dual interpretation can be given for the construal involving abstract topology (PC2). Even though only 3.25%[49] of the participants construed this rather concrete group of meanings in a more abstract way, it still might be taken as a piece of evidence signalling that L2 learners have different starting points within a lexical category (see section 2.1 for a similar discussion pertaining to L1 development). Where and how they start is likely to depend on various aspects of their experience and knowledge. For example, the meaning of *out* in the verb *put out* meaning 'to injure your back, shoulder or hip' is more likely to be construed as concrete and topological by someone who knows exactly what happens when such an injury occurs – a particular bone gets 'out of its place'. However, it can be easily identified with a more abstract meaning such as 'out of the original or normal state'. This also relates to what was suggested by Lindner (see section *2.2.5.6*) who stresses that we should not attempt to categorize particular meanings as an exclusive member of only one category.[50] Speakers (of L1) extract regularities from particular constructions and construct meanings accordingly, but they are free to extract multiple patterns from a given set of forms. We believe that the same process may be claimed for L2 speakers/learners.

The third most frequent construal (PC9 – 7.55%) also implies static topology. However, this construal involves an important new element – focus on the space outside our immediate dominion. Furthermore, it includes the concept of visibility and accessibility (see Lindner's discussion on meaning extensions in *2.2.5.4*). These meanings are often related to the non-transparency of LMs. They hide their contents and make them invisible, but they are often only vaguely specified and they refer to various states denoting obscurity. Thus, *out* often denotes 'change of state from non-visible to visible'. This resultant change approximates the strategic construal of *out* labelled PC9.

[49] It needs to be stressed that this percentage (3.25%) is viewed in relation to the frequency of other contributions. In other words, if we know that there were 10 types of construal identified for *out,* and that the highest percentage for this group of meanings was 12.10%, followed by 11.50% and 7.55%, and that most other frequencies were below 2.0%, it seemed reasonable to consider PC2 (3.25%) in our discussion and attempt to interpret its contribution.

[50] Here Lindner uses the term *category* in a narrower sense of its meaning. It actually refers to a cluster of meanings that have similar semantic contributions in particular groups of PV constructions.

The second group of meanings (G4) had been classified as denoting abstract processual topology. The most frequent construal of the particle in this group was PC2 (17.64%) - abstract topology (static displacement). This static aspect of the construal is actually the central element found for this group of meanings. This is confirmed by the frequencies established for PC3 (5.61%) and PC9 (8.28%), which both imply static topology, and the only difference between them is the viewing arrangement. More specifically, the construal labelled PC3 is partly egocentric, which is evident in answers describing *out* as 'out of our world', 'out of our reach' or 'out of where we are', as opposed to answers belonging to PC9 that describe *out* as 'outside where other people are', 'out in the open', 'out in the larger area', etc.. In terms of what has been said about the nature of *out* in English as L1, these two meanings are consistent with what Lindner has explained by using the model of an evolutionary cycle (see Figure 11 in section *2.2.5.5*). There are two basic viewer-defined regions (the potential private and the actual public) that serve as LMs for *out*. Both Mexican and Croatian learners of English have recognized these two regions as an important aspect in the process of meaning construction of this particle. However, 6.51% of the answers referred to concrete processual topology, which suggests that degrees of concreteness and literalness are indeed very subjective. In this particular case, our participants' strategic construal showed tendency towards the concrete whereas ours leaned towards the more abstract. In the last part of our discussion on the results obtained, we shall attempt to relate the frequencies of concrete vs. abstract aspects of construal to the learners' proficiency.

Finally, as much as 5.41% of the answers implied a kind of reverse viewing pertaining to our bodies being perceived as containers. Thus, for example, the meaning of *take out* 'kill' is explained by saying that 'life is taken out of a person's body' or 'one's soul is taken out of someone's body' instead of 'body being taken out of life'. It would be rather callous to attribute this kind of construal to a single factor, but it is reasonable to speculate that the following factors may have contributed to this interesting reversal: a) a lack of linguistic context; b) level of language proficiency; c) the centrality of body in human conceptualization; d) the importance of body as a source of containment; e) cultural significance of e.g. the body being a seat of the soul, etc.

The third group of meanings (G5) had been classified as aspectual (termination). As expected, as much as 11.61% of the participants' answers suggest that the meaning of the particle denotes some sort of termination (cf. section *2.2.5.6* for the same characterization in English as L1). However, a very large number of answers relate to less grammaticalized meanings of *out*, which again is likely to indicate that linguistic categories may be entered at various points in the process of language acquisition and development. Thus, the second most frequent construal (8.10%) implies that the particle stands for static displacement, then 6.51% of the answers point to the static topology focused on the space where the conceptualizer is situated, 3.97% of the answers say that the particle denotes concrete processual topology (together with 2.06% of the cases with no container specified), and 3.94% of the answers indicate that *out* stands for some sort of inaccessibility and absence (PC4). If we reordered these answers into a sort of gradient line denoting the process of grammaticalization, we might obtain the order as shown in Figure 26.

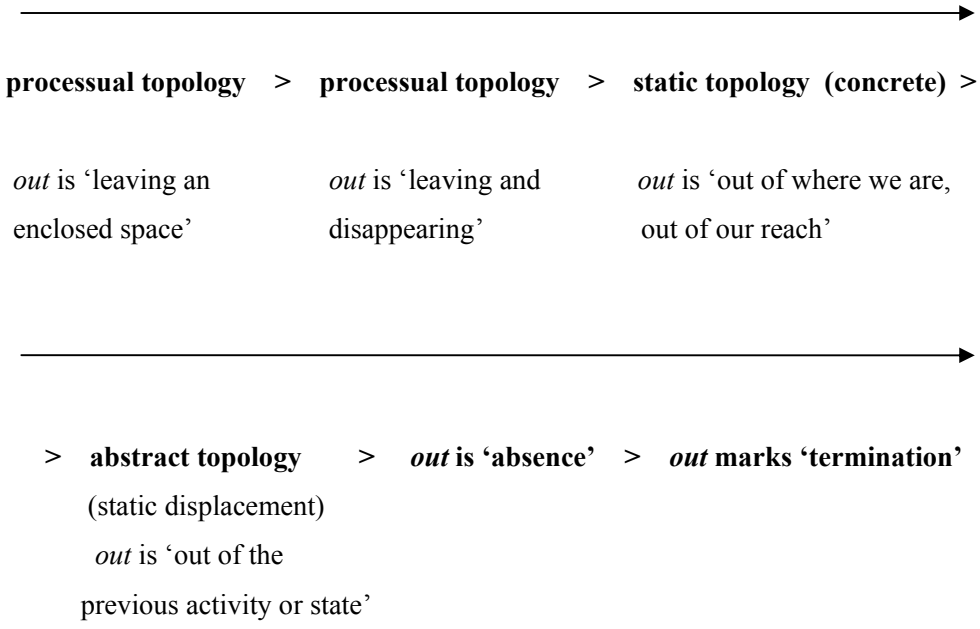

Figure 26. A potential path of grammaticalization in the strategic construal of *out* (1)

Finally, it is interesting to note the difference in frequencies between the two construals implying static topology (PC3 and PC9). Whereas the frequency of PC3 (concrete static

topology with the focus on the conceptualizer's space) is 6.51%, the frequency of PC9 (concrete and abstract topology with the focus outside the conceptualizer's space) is only 1.14%. This may indicate that in terms of the stages in the process of developing or acquiring a network of meanings, the construal of *out* involving the conceptualizer's space and the construal of *out* involving the space outside the conceptualizer's dominion are not equally distant from the aspectual meaning of *out,* i.e. the construal of *out* involving the conceptualizer's space is closer to the aspectual meaning of *out* than the construal involving the space outside the conceptualizer's dominion.

The last group of meanings of PVs (G6) is also aspectual, but the meanings seem to be inceptive. Contrary to the results for *out* denoting termination, the most frequent answers for this group of meanings are not those that explicitly refer to the aspectual nature of the particle. The most frequent answers are those labelled PC9 (11.96%) and implying static topology with the focus on the space outside the conceptualizer's immediate dominion. It is very interesting that the strategic construal involving static topology with the focus on the conceptualizer's space (PC3) is not found at all for this group of meanings. Thus, we may conclude that for L2 learners, the beginning of an activity is identified with the space outside their immediate dominion, 'out in the open' where things become 'visible'. Concrete processual topology and explicit reference to aspect are the second most frequent kinds of construal (7.61%). In the case of processual topology, the learners construe the inceptive character of PVs by assigning it to the particle denoting the process of a TR leaving an enclosed space (and the space is often described as something that confines the TR). Finally, 3.26% of the answers refer to abstract topology (PC2). In sum, in a similar manner as *out* signalling termination, strategic construal of *out* that marks inception shows stages that resemble the process of grammaticalization that is implied in L1 descriptions of this particle (see Figure 27).

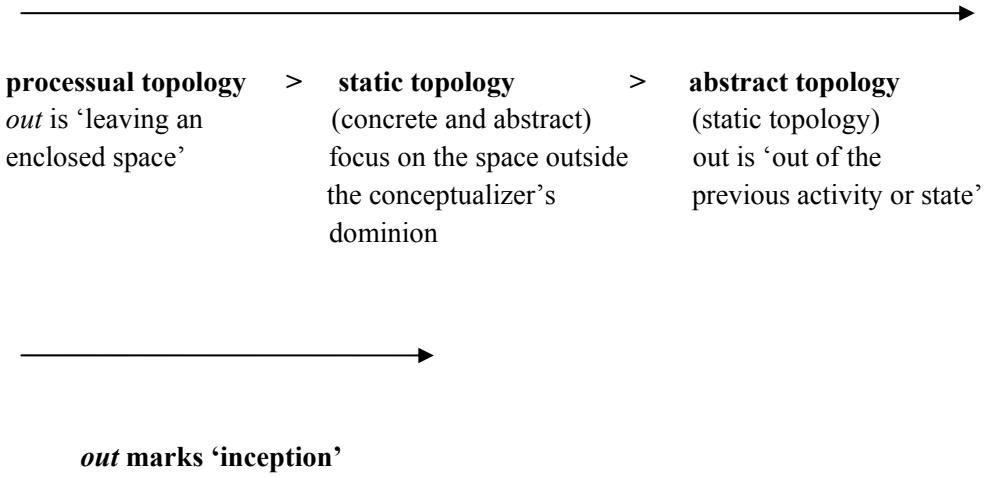

Figure 27. A potential path of grammaticalization in the strategic construal of *out* (2)

4.7.4. Strategic construal of *in* - results

In this section we list the types of strategic construal of *in* for two relevant groups of meanings outlined in section 4.7.1. When first mentioned, all the construal types are accompanied with the reference related to their construal in L1 (if such construal was previously mentioned or described), and followed by a schematic pictorial representation. A detailed discussion follows in section 4.7.5.

1) For the group of meanings classified as G2 (processual topology - concrete), the meaning of *in* was construed as follows:

a) PC1 - processual topology (concrete/physical) (15.37%). *In* is: entering a new space; getting (in)to a new space (there is some kind of movement involved); getting into a container and the container is specified; going into a certain space; going into a designated area; into a certain piece of space; into a place (cf. section 2.2.2 for the construal in L1). See Figure 28.

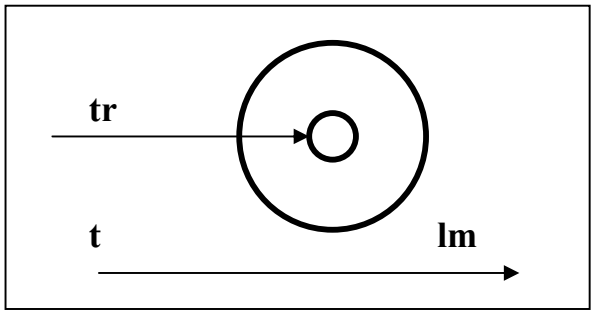

Figure 28. Strategic construal of *in* – processual topology

b) PC3 - static topology (concrete/physical) - there is no motion, just physical space and location (12.80%). *In* is: a place; a location; space; limited space; confined space; something like a hiding place (cf. section 2.2.2 for the construal in L1). See Figure 28.

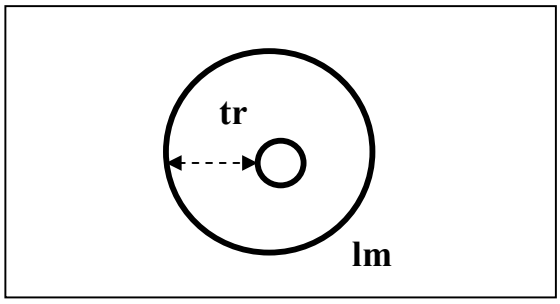

Figure 29. Strategic construal of *in* – static topology

c) PC2 – abstract topology leaning towards inceptive aspect (2.48%). *In* is: be/get (in)to a new activity; be/get (in)to a new situation; (in)to a (new/another) group of people; entering a new situation; beginning of something; starting to get involved. See Figure 29 representing the inceptive nature of the process constituting this construal.[51]

[51] This particular construal combines two important aspects of the construal of *in* in L2. First, it implies abstract topology, and, second, it points to a more grammaticalized meaning that codes inceptive aspect that has not been discussed for *in* in L1.

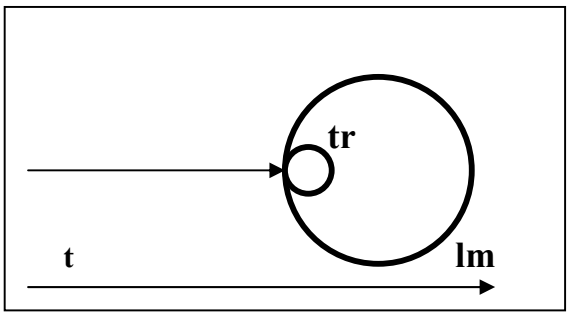

Figure 30. Strategic construal of *in* – inceptive process

d) PC4 - static topology - focus on the subject's dominion (3.47%). *In* is: where the subject is, i.e. his/her world; control; dominion; power (cf. section *2.2.3.2* for the construal in L1).

e) PC5 - process (concrete and physical, but no container specified) (2.01%). *In* is: going into; jumping into; moving towards inside; moving inwards; entering; returning (cf. section 2.2.2 for the construal in L1). See Figure 30.

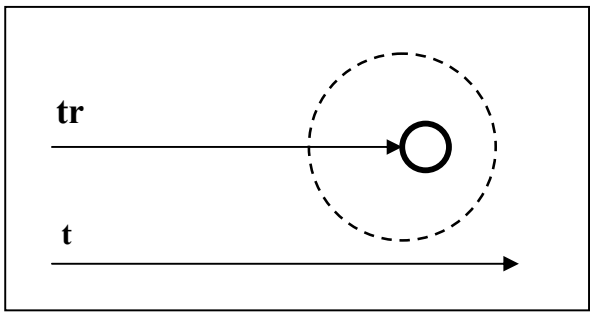

Figure 31. Strategic construal of *in* – entrance - no container specified

f) PC6 (2.01%) - *in* is: inside, inside of something (not very informative).

g) PC8 (0.11%) - *in* intensifies the action.

h) PC11 (2.48%) – reverse topology (cf. sections *2.2.3.2* and *2.2.3.3* for two alternate types of construal in English as L1).

i) PC12 (0.11%) - established metaphor. *In* is: acceptable and accepting.

2) For G4 (processual topology - abstract), the meaning of *in* was construed in the following ways:

a) PC1 - processual topology (concrete/physical) (17.85%). *In* is: entering a new space; getting (in)to a new space (there is some kind of movement involved); getting into a container and the container is specified; going into a certain space; going into a designated area; into a certain piece of space; into a place (cf. section 2.2.2 for the construal in L1). See Figure 27.

b) PC3 - static topology (concrete/physical), (there is no motion, just physical space and location (3.55%). *In* is: a place; a location; space; limited space; confined space; something like a hiding place (cf. section 2.2.2 for the construal in L1). See Figure 28.

c) PC2 – abstract topology leaning towards inceptive aspect (16.91%). *In* is: be/get (in)to a new activity; be/get (in)to a new situation; (in)to a (new/another) group of people; entering a new situation; beginning of something; starting to get involved. See Figure 29 representing the inceptive nature of the process constituting this construal.

d) PC4 - static topology - focus on the subject's dominion (2.75%). *In* is: where the subject is, i.e. his/her world; control; dominion; power (cf. section *2.2.3.2* for the construal in L1).

e) PC5 - process (concrete and physical, but no container specified) (1.2%). *In* is: going into; jumping into; moving towards inside; moving inwards; entering; returning (cf. section 2.2.2 for the construal in L1). See Figure 30.

f) PC6 (2.29%) - *in* is: inside, inside of something (not very informative).

g) PC8 (0.34%) - *in* intensifies the action.

h) PC11 (3.08%) - reverse topology (cf. sections *2.2.3.2* and *2.2.3.3* for two alternate types of construal in English as L1).

i) PC12 (0.17%) - established metaphor. *In* is: acceptable and accepting.

4.7.5. Strategic construal of *in* – discussion

The first and the most obvious observation is that *in* is less informative than *out*, which bears relevance on various aspects of the results, and which has already been mentioned several times in the first part of this chapter. Secondly, there are less types of the construal with *in* than with *out,* and the learners' answers are shorter and/or less specified in the case of *in*. Finally, with both groups of meanings (G2 and G4) there is a certain number of answers that explicitly say that *in* is 'not very informative' (PC6). This is probably due to the much discussed pervasiveness of the experience of boundedness and containment (see section 2.2.2), which results in containment being perceived as some kind of "regular", "natural" or "neutral" state of being that is taken for granted.

Let us now take a look at the two groups separately. For the group of meanings classified as G2 (processual topology – concrete), the most frequent construal was PC1 (concrete processual topology with reference to the container). Together with PC5 (concrete processual topology with no reference to the container), as much as 17.38% of the participants identified the meaning of the particle with the meaning we had assigned to the whole PV. The second most frequent construal (PC3 - 12.80%) suggests that the participants attended only to the resulting state of the whole image, and they formed a completely stationary image, independent from a preceding path. Considering the fact

that our participants were all adults, in whose L1 semantic system static locations are considered to be more basic than motion events (see discussion on developmental issues, section 2.2.2), it is not surprising that so many of them ignored the dynamic aspect of the underlying schema while constructing this particular meaning in L2. The last two types of construal that deserve our attention for this group of meanings are PC4 (static topology with the focus on the subject's dominion), and PC11 (reverse or non-egocentric viewing). As stressed by Evans and Tyler in their description of *in*, there are two clusters of meaning related to the conceptualizer's vantage point (see sections *2.2.3.2* and *2.2.3.3*): a) the cluster related to the spatial scenes in which the vantage point is located within the spatial scene being conceptualized, and b) the cluster related to the spatial scenes in which the vantage point is located outside the spatial scene being conceptualized. What the data for G2 shows is that, for some learners, the most important aspect of meaning construal is the one pertaining to the viewing arrangement in which the vantage point is located within the spatial scene being conceptualized. Thus, 3.47%[52] of the participants stressed that the most salient aspect of the construal was the focus on the subject's/conceptualizer's dominion. Moreover, a smaller number of them (2.48%) did the same even when the particle does not actually code this particular viewing arrangement (e.g. *in* in the PV construction *write in* meaning 'write to ask or complain' does not code the subject's dominion). If we treat the latter not simply as an error, we may conclude that L2 learners recognize certain, more general, facets of the meaning of the particle even when they are not coded in a particular sense that is being processed. It might lead us to believe and conclude that their strategic thinking involves various cognitive processes, such as e.g. those pertaining to viewing arrangement, which tend to be activated whenever they constitute aspects of construal in L1. In other words, having encountered various facets of meaning and having abstracted a variety of regularities in the process of their SLA, learners are likely to use them and construct meaning strategically whenever they face something they do not know or understand completely. Consequently, their strategic thinking does involve errors in a narrow sense of the meaning, but, in broader terms, they should be treated as a meaningful and constructive

[52] See the comment in footnote 49. Moreover, we believe that the qualitative analysis such as ours needs to include and interpret even seemingly less significant contributions, especially in the light of our insistence on illuminating subjective and idiosyncratic aspects of (strategic) construal.

stage in their progress. Finally, for the group of meanings G4 (processual topology - abstract), the situation is a bit different. Even though there is a high percentage of answers implying concrete processual topology (PC1 - 17.85%), there is also a high percentage of answers (16.91%) pointing to the inceptive aspect of the construal (PC2). The recognition of the abstract nature of the particle in this particular group of meanings is not that surprising. What is more surprising is the learners' tendency to go a step further and describe the role of the particle in terms of its aspectual nature. The inceptive aspect of the particle is defined either overtly by using descriptions such as 'beginning of something' or 'starting to get involved', or in a more covert manner by describing its meaning as, e.g., 'getting (in)to a new activity' or 'entering a new situation'. Thus, we need to conclude that our learners/speakers of English as L2 recognized the aspectual nature of the particle where we, i.e. linguists and researchers, had neither expected nor done it ourselves.

4.7.6. A few concluding remarks

The strategic construal of both *in* and *out* points to the following:

a) L2 learners are very much aware of the symbolic nature of language;
b) their cognitive strategies in L2 reflect cognitive processes described as aspects of construal in L1;
c) their strategic construal shows a cognitively motivated path from the topological to the aspectual;
d) they seem to have different starting points within a lexical category, just like L1 speakers in the process of language development;
e) the process of meaning construction in L2 involves a number of elements constituting the linguists' description of English as L1.

4.7.7. Construal of particles in relation to proficiency – results for *out*

Our final discussion is concerned with correlating particular construals of *in* and *out* with the learners' language proficiency.

The data for ***out*** has revealed the following correlations:

1) Significant (positive) correlations between PC9 and PC12 in the group of meanings labelled G2 (processual topology - concrete) and proficiency test results (see Table 39).

Table 39. Correlations between particle construals in G2 and proficiency

G2_PC9	,303**
G2_PC12	,214*

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

The construals in question are the following:

a) PC9 - static topology (both concrete and abstract) focus on the space outside our immediate dominion (7.55%). *Out* is: outside, «out» where other people are; visible; not hidden; out in the open; out in the larger area; out in all directions or surrounding space.

b) PC12 (1.13%) – established metaphor. *Out* is: out of the group; not belonging; free; freedom; something discarded; something unacceptable; something negative.

2) Significant (positive) correlations between PC1, PC3, PC4 and PC9 in the group of meanings labelled G4 (processual topology - abstract) and proficiency test results (see Table 40).

Table 40. Correlations between particle construals in G4 and proficiency

G4_PC1	,251*
G4_PC3	,218*
G4_PC4	,246*
G4_PC9	,279**

**Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

The construals in question are the following:

a) PC1 - processual topology (concrete/physical) (6.51%). *Out* is: going out or leaving an enclosed space; going out of anything that surrounds you or confines you;

going our or leaving a container (human bodies, houses, buildings, drawers, etc) – very literal, physical, and concrete.

b) PC3 - static topology (concrete/physical) – out of our dominion or out of the 'usual' place (5.41%). *Out* is: out of where we are; out of our world; out of our reach; out of normal position; out of its place; displaced; out of its physical boundaries; out of its physical limits.

c) PC4 (0.87%) - *out* is**:** absence; absent; not present; not here; isolation; not seen; not visible.

d) PC9 static topology (both concrete and abstract) focus on the space outside our immediate dominion (8.28%). *Out* is: outside, «out» where other people are; visible; not hidden; out in the open; out in the larger area; out in all directions or surrounding space.

3) Significant (positive) correlations between PC4 and PC12 in the group of meanings labelled G5 (aspectual - termination) and proficiency test results (see Table 41).

Table 41. Correlations between particle construals in G5 and proficiency

G5_PC4	,233*
G5_PC12	,221*

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

The construals in question are the following:

a) PC4 (3.94%) - *out* is**:** absence; absent; not present; not here; isolation; not seen; not visible.

b) PC12 (1.0%) – established metaphor. *Out* is: out of the group; not belonging; free; freedom; something discarded; something unacceptable; something negative.

4.7.8. Construal of particles in relation to proficiency – discussion for *out*

The correlations in the group of meanings coding processual topology (G2) suggest that the learners with lower language proficiency are significantly less likely to focus on the space outside the subject's immediate dominion. The 'goal' space in the underlying

schema is simply less obvious for the less proficient. Furthermore, the data suggests that the less proficient are less likely to understand and describe a concrete process by attending to more abstract processes, such as conceptual metaphors. In other words, we may conclude that (the awareness of) mappings from one conceptual domain into another seem to be more frequent in learners with higher language proficiency.

In the group of meanings coding processual topology that is abstract (G4), it is evident again that the proficient learners simply cope better with abstract meanings. They are significantly more likely to make sense of abstract topology by doing one of the following: a) identifying the abstract with the more concrete (PC1), b) attending to various aspects of construal pertaining to viewing arrangement (PC3 and PC9), and c) making the already abstract meaning even more schematic (PC4).

Finally, in the group of meanings coding aspect (termination), the more proficient learners significantly more often identify the aspectual meaning with the very schematic meaning of absence and/or invisibility (PC4), or their answers contain established, mostly "negative" metaphors implying that *out* stands for something that 'does not belong to the group', something 'discarded' or something 'negative'. It is reasonable to assume that the markedness of these negative expressions may be more difficult to grasp by the lower proficiency learners.

4.7.9. Construal of particles in relation to proficiency – results for *in*

The data for ***in*** has revealed the following correlations:

1) Significant (positive) correlations between PC1, PC2, PC4 and PC5 in the group of meanings labelled G2 (processual topology - concrete) and proficiency test results (see Table 42).

Table 42. Correlations between particle construals in G2 and proficiency

G2_PC1	,373**
G2_PC2	,239*
G2_PC4	,239*
G2_PC5	,281**

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

The construals in question are the following:

a) PC1 - processual topology (concrete/physical) (15.37%). *In* is: entering a new space; getting (in)to a new space (there is some kind of movement involved); getting into a container and the container is specified; going into a certain space; going into a designated area; into a certain piece of space; into a place.

b) PC2 – abstract topology leaning towards inceptive aspect (2.37%). *In* is: be/get (in)to a new activity; be/get (in)to a new situation; (in)to a (new/another) group of people; entering a new situation; beginning of something; starting to get involved. See Figure 29 representing the inceptive nature of the process constituting this construal.

c) PC4 - static topology - focus on the subject's dominion (3.47%). *In* is: where the subject is, i.e. his/her world; control; dominion; power.

d) PC5 - process (concrete and physical, but no container specified) (2.01%). *In* is: going into; jumping into; moving towards inside; moving inwards; entering; returning.

2) Significant (positive) correlations between PC1 and PC3 in the group of meanings labelled G4 (processual topology - abstract) and proficiency test results (see Table 43).

Table 43. Correlations between particle construals in G2 and proficiency

G4_PC1	,264**
G4_PC3	,318**

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

The construals in question are the following:

a) PC1 - processual topology (concrete/physical) (17.85%). *In* is: entering a new space; getting (in)to a new space (there is some kind of movement involved); getting into a container and the container is specified; going into a certain space; going into a designated area; into a certain piece of space; into a place.

b) PC3 - static topology (concrete/physical), (there is no motion, just physical space and location (3.55%). *In* is: a place; a location; space; limited space; confined space; something like a hiding place.

4.7.10. Construal of particles in relation to proficiency – discussion for *in*

The correlations in the group of meanings coding processual topology (G2) suggest that, in the case of PV constructions with *in*, the learners with higher language proficiency are significantly more likely to use some kind of play-it-safe strategies in the process of meaning construction. This is evident in the fact that a great number of them described the meaning of the particle by referring to concrete processual topology (PC1 and PC5), that is, their construal of the particle did not differ much from the construal of the whole PV construction. Furthermore, they focused on the idea that *in* codes the subject's dominion (3.47%). In other words, they constructed the meaning of the particle by attending to its core sense(s). This is in accordance with the previously discussed idea that *in* is generally less informative than *out*. Thus, the elements pertaining to how *in* is construed either do not discriminate the less proficient learners from the more proficient ones (as it was the case in the results related to the overall semantic determination), or they discriminate the more proficient ones as those learners who are able to recognize and attend to what is "central" or "basic" without taking anything for granted. However, no matter how non-informative *in* seems to be, some correlations show that it is still semantically heavy enough to discriminate between those learners who tend to think and construct meaning in more abstract terms and those who are less likely to do so. For example, the significant correlation between PC2 (aspectual –inceptive) and proficiency clearly suggests that *in*, just like *out*, can be a productive linguistic tool for investigating meaning construal in the process of second language acquisition.

Finally, in the group of meanings coding processual topology that is abstract (G4), the correlations show a similar tendency as in the case of G2. The more proficient learners tend to identify abstract meanings with the more concrete ones. They either make them concrete and processual (PC1), or concrete but static (PC3). Either way, they seem to be less motivated and less inspired by what they have learnt about *in* than by what they have learnt about *out*.

In sum, for both *in* and *out*, the learners' proficiency has proved to be a significant factor in the process of meaning construction. However, the results suggest another very important aspect of the learners' strategic construal – when it comes to establishing tendencies and/or patterns in understanding fine-grained and/or multiple senses, especially while interrelating various factors determining language acquisition, we need to be very careful not to make any generalizations unless there are at least two lexical items to be compared and cross-examined. In our case, for example, the two particles, seemingly very close in nature and behaviour, have shown both commonalities and differences in relation to other factors determining the meaning construal in L2.

5. Conclusion

This concluding chapter contains the following:

a) a brief revision of all the central findings presented in the work;
b) theoretical and practical implications ;
c) possible avenues for further research.

In terms of our starting assumptions, aims and hypotheses, this work has offered data revealing the following tendencies:

1) The overall semantic determination of PV constructions depends on the nature of their parts. With both PVs with *in* and PVs with *out*, topological determination is expected more frequently with light verb than with heavy verb constructions. Conversely, L2 speakers tend to rely more on the verbs than particles when they construct the meaning of PVs with heavy lexical parts. Finally, compositional meanings tend to be more frequent with PVs containing heavy verbs. In other words, the results demonstrate that the semantic weight of the verb plays a significant role in the process of meaning construction in L2. Furthermore, the omnipresence and polysemy of particles seem to be responsible for the central role that particles have in the process of strategic construal of PV constructions with light verbs. Thus, as concluded earlier, we may claim that the semantic continuum of strategic construal of PVs runs from learners/speakers relying exclusively on semantically heavy verbs to find the primary motivation of meaning in highly grammaticalized particles. In between the two extremes, there are a number of intermediate cases involving gradient and partial compositionality.
2) In the case of *out*, with both light and heavy verb constructions, a higher frequency of compositional meanings is found in learners with higher language proficiency. Topological determination, on the other hand, does not correlate with language proficiency. In the case of *in*, topological determination and compositionality correlate with language proficiency with light verb constructions, whereas no statistically significant correlations have been found between language proficiency and type of determination with heavy verb

constructions. The differences in the strategic construal between *in* and *out* have been partly attributed to the fact that *out* has been found to be more informative than *in*. Hence, in the case of *in*, learners' answers implying topology depend on the learners' proficiency, that is, only proficient learners can make sense of the semantic contribution of the particle.

3) With both light and heavy verb constructions with *out,* compositionality is significantly more frequent in the group of Croats than in the group of Mexicans. Furthermore, only with heavy verb constructions with *out*, lexical determination is significantly less frequent in the group of Croats. With light verb constructions with *in*, no significant differences were found between the two groups of learners. The reason for this has been attributed to the following: a) the particle *in* has proved to be generally less informative than *out*, b) the schematicity of light verbs is less likely to lead towards a more compositional meaning construal. Thus, irrespective of potentially compositionality-biased L1 elements, such as the existence of verbal prefixes in Croatian (as mentioned earlier, Croatian is certainly not a (proto)typical satellite-framed language, but it exhibits both lexical and satellital strategy in expressing the core schema), the vagueness of the verb and the non-informativeness of the particle make the composite whole equally "complex" for both groups. However, with heavy verb constructions with *in*, compositionality is significantly more frequent in the group of Croats, and lexical determination is significantly less frequent in the group of Croats than in the group of Mexicans.
4) Having compared the data for *out* discriminating light and heavy verb constructions in the whole sample with the data relating to the participants' L1 (i.e. the data for two distinct groups of learners), we have come to the conclusion that compositionality is a consistently important aspect of meaning construal. In the whole sample, compositionality is a more predictable pattern in PVs with heavy verbs, whereas in the Croatian sample (vs. the Mexican sample) it is more frequent in the strategic construal of both light and heavy PVs. Furthermore, in the whole sample, lexical determination is significantly more frequent with heavy PVs. However, the data pertaining to different L1s reveals that lexical

determination is less frequent in the group of Croats. Generally, the Croatian learners tend to attend to both parts of the composite whole much more frequently than their Mexican counterparts, and they rely less on the lexical part of he PV construction. We suggest that the central factor affecting and shaping this kind of tendency in their strategic construal is the fact that the Croatian language exhibits both satellital and lexical strategy in expressing the core schema. Thus, the existence of satellites in L1 facilitates meaningful recognition of the role of particles in L2. On the other hand, Spanish is a verb-framed language and its speakers, in the process of meaning construction in L2, tend to rely on the meaning of the verb.

5) Having re-examined the role of proficiency by comparing the group of less proficient Croats with their Mexican counterparts, and the group of proficient Croats with their Mexican counterparts, we have found that the Croats consistently exhibit differences that were initially found significant for the proficient learners in the whole sample. However, since no significant difference between the Croats and the Mexicans was found in the results on the proficiency test, we decided to look at other factors that are likely to account for the differences in their strategic construal. Thus, we examined a considerably high standard deviation in the years of learning English in the Mexican group, and a statistically significant difference in the year of study between the two groups. As opposed to the Mexican group, the Croatian part of the sample was quite a homogenous group in terms of their age, years of learning English, and the age at which they started learning it. Thus, our assumption is that even though the Croats do not significantly differ from the Mexicans in their language proficiency, their knowledge might be more structured, and their learning strategies and their metacognition more developed.
6) We suggest two major groups of factors affecting the process of meaning construal of PVs in L2:

a) language internal factors pertaining to L2 (light vs. heavy verbs, and degree of informativeness of particles) and language internal factors pertaining to both L1 and L2 (verb-framed vs. satellite-framed languages);

b) language external factors (language proficiency, years of learning L2, and various aspects of the learning environment conducive to developing learning strategies, e.g. the early start and continuity in learning).

7) Learners' strategic construal of *out* comprises the following: processual topology (concrete/physical); static topology (concrete/physical); abstract topology (static displacement/change of state); invisibility and inaccessibility; processual topology without direct reference to the container; static topology (both concrete and abstract) with focus on the space outside our immediate dominion; aspect (termination); aspect (inception); established metaphor; several kinds of reverse viewing. Learners' strategic construal of *in* comprises the following: processual topology (concrete/physical); static topology (concrete/physical); aspect (inception); static topology (focus on the subject's dominion – egocentric viewing); process (concrete and physical, but no container specified); established metaphor; reverse topology; *in* meaning 'inside' (not very informative); *in* that intensifies the action. Thus, learners' answers for both *in* and *out* indicate various points on the path that resembles the process of grammaticalization, i.e, their construal contains aspects pertaining to gradient points constituting the path from the physical and concrete to the aspectual and highly schematic.

8) Learners of English find both lexicon and grammar meaningful, and they are aware of the symbolic nature of language. The cognitive linguistic premise that language is intimately related to other cognitive processes finds its evidence in the nature of learning strategies employed by L2 learners. More specifically, the meaning construal in L2 is comparable to the meaning construal in L1. This is especially evident in the learners' construal of particles. Learners of English recognize the complexity of their semantic networks proposed and described in English as L1. Their answers clearly imply the problem of dynamic aspects of the construal of particles as well as the importance of cognitive processes such as attention and perspective (e.g. their answers imply gradience from the literal to the metaphoric, aspects of viewing arrangement, and mental scanning). In other words, their cognitive strategies employed in the process of meaning construction in L2 reflect general cognitive processes described as aspects of construal in L1.

Even though the realizations of these processes are language specific and languages have different inventories for building their conceptual structures, the fact that cognitive processes are intimately related to language enables L2 learners to activate them in the process of meaning construal. What the data shows is that their ability to go from the literal and concrete to the abstract and metaphoric results in a variety of strategically constructed meanings amounting to a gradient scale resembling a grammaticalization path of English particles. For example, their answers for *out* in the group of PV meanings implying aspect (termination) indicate that they make sense of meanings in a linguistically motivated way, that they are tacitly aware of the fact that lexicon and grammar form a continuum, and that their meaning construal involves general cognitive processes such as attention, comparison and perspective, i.e., linguistic construal operations such as selection, scalar adjustment, metaphor, vantage point, etc. as instances of these general processes. This is evident in the following grammaticalization path (see section 4.7.3): *out* is 'leaving an enclosed space' (processual topology) > *out* is 'leaving and disappearing' (processual topology, no container specified) > *out* is 'out of where we are, out of our reach' (static topology – concrete) > out is 'out of the previous activity or state (abstract topology - static displacement) > out is 'absence' > *out* marks 'termination'. Another example of our learners' varying attention relates to the mental scanning underlying dynamic and static aspects of their meaning construal. For example, even though conceptual scanning processes are an essential element for both path schemas and stative relations, our learners attention was often rather selective and they attended only to the resulting states and described completely stationary images rather than processes (see the results outlined in sections 4.7.2 and 4.7.4). Finally, aspects of viewing arrangement pertaining to the general cognitive process of perspective are more than evident in the types of strategic construal implying the importance of the conceptualizer's dominion or the space outside of her/his dominion (see construals PC3, PC9 and for *out*, and PC4 for *in*).

9) The way our participants constructed particular meanings supports the idea that speakers of English have different starting points within a lexical category (see

Rice's discussion in section 2.1 and our discussion in section 4.7.3). In both L1 and L2, where and how they start is likely to depend on various factors pertaining to their experience and knowledge (e.g., the work they do, hobbies they have, places they live in). For example, there are learners who construct concrete meanings in a more abstract way. The meaning of *out* in the verb *put out* meaning 'to injure your back, shoulder or hip' is more likely to be construed as concrete and topological by someone who knows exactly what happens when such an injury occurs – a particular bone gets 'out of its place'. On the other hand, it can be easily identified with a more abstract meaning such as 'out of the original or normal state' by those who have never seen or experienced such an injury or have never thought about it. Naturally, where and how L2 speakers of English enter a particular lexical category also depends on the aspects of knowledge related to their language education and their proficiency in L2. If we take another look at the above mentioned grammaticalization path, we shall see that the extreme abstractness of the aspectual import of the particle is identified with a variety of less abstract types of construal. However, having correlated types of construal with language proficiency, we found that in the group of meanings coding aspect (termination), the more proficient learners significantly more often identified the aspectual meaning with the very schematic meaning of absence and/or invisibility (PC4), or their answers contained established, mostly "negative" metaphors implying that *out* stands for something that 'does not belong to the group', something 'discarded' or something 'negative' (it is reasonable to assume that the markedness of these negative expressions may be more difficult to grasp by the lower proficiency learners). This tendency of proficient learners being better at coping with abstract meanings was also found significant for the group of meanings coding processual topology that is abstract (G4). They were significantly more likely to make sense of abstract topology by doing one of the following: a) identifying the abstract with the more concrete (PC1), b) attending to various aspects of construal pertaining to viewing arrangement (PC3 and PC9), and c) making the already abstract meaning even more schematic (PC4). So, what we have managed to demonstrate is that the semantic complexity of linguistic

categories such as particles is a true challenge even for proficient learners of English at an academic level. We have correlated their construal of particles with their language proficiency and found significant differences. However, predicting our learners' starting points within a lexical category, if possible at all, would require the introduction of a number of other relevant variables and a thorough investigation of various aspects of language acquisition. But, we can still conclude that our participants' meaning construction supports the idea that the best way to deal with complex lexical categories is avoiding strict categorization which assumes fixed and predictable places of particular meanings within a particular category. Speakers of English (both L1 and L2) seem to extract regularities from particular constructions and construct meaning accordingly, but they are free to extract multiple patterns from a given set of forms.

10) The strategic construal of particles changes with the level of language proficiency. In the case of *out*, the learners with lower proficiency are significantly less likely to focus on the space outside the subject's immediate dominion. Furthermore, they are also less likely to understand and describe a concrete process by attending to more abstract processes. Generally, the proficient learners cope better with abstract meanings. For example, they significantly more often identify the aspectual meaning with the very schematic meaning of absence, i.e. inaccessibility and invisibility. In the case of *in*, the situation is slightly different. The learners with higher proficiency tend to use some kind of play-it-safe strategies in the process of meaning construction. They construct meaning by attending to its core sense(s). This is in accordance with the previously stated conclusion that *in* seems less informative than *out*. Thus, the elements pertaining to how *in* is construed either do not discriminate the more proficient learners from the less proficient ones (as it is the case in the results related to the overall semantic determination), or they discriminate the more proficient ones as those learners who are able to recognize and attend to what is "central" or "basic" without taking anything for granted.

11) When it comes to establishing tendencies and/or patterns in understanding fine-grained and/or multiple senses, especially while interrelating various factors

determining language acquisition, we need to be very careful not to make any generalizations unless there is at least two lexical items to be compared and cross-examined. In our case, for example, the two particles, seemingly very close in nature and behaviour, have shown both commonalities and differences in relation to other factors determining the meaning construal in L2.

The central theoretical implication of this work pertains to the necessity of interdependence between empirically based SLA research and highly theoretical, but in-depth and detailed linguistic descriptions. Considering the constructivist nature of modern SLA theories and basic cognitive linguistic premises, the L1-L2 link represents an irreplaceable source of putting forward new hypotheses as well as a two-way (re-) testing of relevant findings in both L1 and L2. In other words, strategic construal, i.e. meaning construal in L2, supports and validates analyses, descriptions and conclusions offered for L1, whereas aspects of meaning construal in L1 facilitate a more in-depth understanding of the process of meaning construction in L2. In other words, one body of research feeds into another, and the entire system is necessarily cyclic. In this work this interdependence is most evident in the factors that were found to affect the nature of meaning construction. As already concluded, there are two groups of factors shaping the nature of our learners' strategic construal of English particle verbs:

a) language internal factors pertaining to L2 (light vs. heavy verbs, and the degree of informativeness of particles) and language internal factors pertaining to both L1 and L2 (verb-framed vs. satellite-framed languages);
b) language external factors (general language proficiency, years of learning L2, and various aspects of the learning environment conducive to developing learning strategies, e.g. the early start and continuity in learning).[53]

The model that follows represents the factors considered in this research.

[53] For an extensive list of both language internal and language external factors affecting the process of language acquisition and cross-linguistic influences see the authors cited in footnote 18.

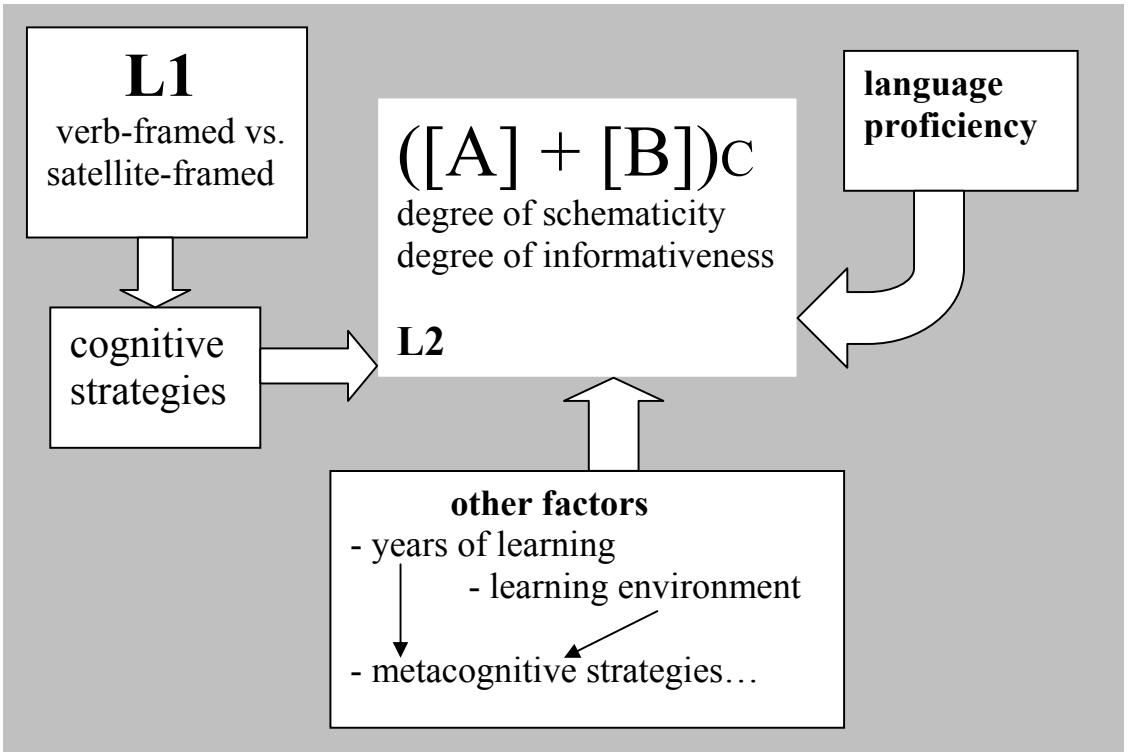

Figure 32. Factors affecting the strategic construal of particles in PV constructions

In the middle of the model shown in Figure 32, which is compatible with the model proposed in the introductory part of this thesis (see Figure 1 in section 2.1.1), there is a formula representing two component structures forming a composite whole (cf. Langacker 2000a: 94). As stressed by Langacker, and repeated in the introduction of this work, the composite structure (C) should not be taken as merely the union of [A] and [B], nor [A] and [B] as unmodified in (C).

In our case, the formula represents PV constructions, and there are two aspects of component structures singled out as important for our research: a) their degree of schematicity and b) their degree of informativeness. But, in addition to the nature of the component structures, the construal of the composite whole in L2 is affected by the learners' L1, i.e., their cognitive strategies in dealing with PV constructions are related to structures they encounter and use in their L1. Metaphorically speaking, the semantic battle between the particle and the verb will depend on what kind of structures are favoured in L1. Thus, e.g., the speakers/learners of Spanish are more likely to rely on verbs than on particles. Furthermore, the relationship between the two component

structures will depend on the learners' language proficiency. For example, irrespective of the degree of schematicity of the verb, those learners who are more proficient are more likely to attend to both components in the process of strategic meaning construal. However, this particular strategy is present only in the case of *out.* In the case of *in*, on the other hand, topological determination and compositionality correlate with language proficiency with light verb constructions, whereas no correlations are found between language proficiency and type of determination with heavy verb constructions. The differences in the strategic construal between *in* and *out* are attributed to the fact that *out* has been found to be more informative than *in*. Finally, since our data showed that the Croats did not significantly differ from the Mexicans in their general language proficiency, the differences in their meaning construal were largely attributed to the above mentioned differences in L1. However, having analyzed the data related to their educational background, we believe that the homogeneity of Croatian sample related to the age when they started learning English, the number of years of learning, the type of schools they attended, etc. may have had some influence on their learning strategies and metacognition, and hence the process of meaning construction. The variability in the years of learning English and the age they started learning it point to the fact that language learning is more structured and more uniformed in Croatia than it is in Mexico. As early as age 10/11, the Croats start analyzing both their L1 and L2, and they learn to think and talk about language. On the other hand, in Mexico the situation is considerably less structured. There are both public and private schools. English in public schools is rather basic (the highest level acquired by a public school graduate is around pre-intermediate), whereas English in private schools is not simply a subject taught but often a medium used to teach other subjects. In the end, it might be important to mention that the above outlined interdependence of internal and external factors necessarily involves subtle issues related to the relationship between cognitive and affective factors. For example, affective factors such as language anxiety interfere with cognitive processing and language learning in general. Less proficient learners/speakers of L2 are afraid to cope with a variety of language problems because they feel they are too difficult for them. The fact that they are less willing to tackle the problems makes them less likely to learn and expand their knowledge. Thus, the circle is complete because their (lack of)

knowledge interferes with their disposition to solve problems. This might partly explain why the more proficient participants in our sample described the meaning of PVs by making references to compositionality - they were not afraid to analyze and decompose the structure in order to explain it.

We may conclude that investigating cognitive (learning) strategies as aspects of cognitive processing, and interrelating them with internal and external factors affecting the process of language acquisition and meaning construal, is bound to result in relevant findings pertaining to the idea of subjectivity of linguistic meaning and inseparability of language from other cognitive processes/abilities, and, ultimately, in a cognitively real picture of both L1 and L2. Now, if we go back to the central theoretical implication of this work which implies the necessity of interdependence between the empirically based SLA theory and theoretical, but in-depth cognitive linguistic descriptions of language, we need to end this thesis discussion by mentioning broader theoretical issues that underlie this work. Generally, language acquisition and learning, and thus data on SLA, are useful for testing linguistic theories, contributing to research in psychology and neuroscience, and yielding various practical applications in the field of language teaching.[54] In our work, the necessary link for fitting one theoretical framework into another was the necessity of investigating language in terms of its relation to cognition. As stressed at the very beginning of this dissertation, in the field of SLA there are cognitive processes researched as cognitive strategies employed in the process of L2 meaning construction, and they are treated as individual differences and defined as processes facilitating language processing, and, on the other hand, there is a body of cognitive linguistic research whose fundamental premise is that language is an experiential phenomenon intimately related to other cognitive processes, and that linguistic meaning is dynamic and subjective. Self-evident commonalities between these two research paradigms are cognitive processes linking language and cognition. Now, the central idea in the field of cognitive semantics, as opposed to formal semantics, is that linguistic meanings should be investigated as "the product of mental activity on the part of physically embodied, socio-culturally grounded human minds" (Langacker 2000b: 26). Langacker stresses that even though it is too early to offer "a comprehensive or rigorously formalized description" (*ibid.*: 26),

[54] See Doughty and Long (2003).

conceptualization is not chaotic, and structure and organization can be discovered. One of the most important aspects of specific constructs employed to describe semantic structure is the fact that they are grounded in well-established or easily demonstrable cognitive phenomena. This particular aspect has been tested and confirmed in this work, and we hope to have contributed to the idea that what is universal in language does not pertain to aspects of innate grammar and independent language faculty. Rather, what is universal pertains to the nature of links between language and other cognitive abilities, i.e., the unavoidable communication between language and other abilities, as well as their specific realization in a particular language. Thus, our learners' strategic thinking in L2 activated those cognitive processes that were found relevant as aspects of construal in English as L1. Furthermore, we have shown that grammar is indeed meaningful and symbolic and that grammatical elements play a major role in construing the experience to be communicated. This is more than evident in the alternations of strategic construal of particles and their dynamic nature in PV constructions. Our learners' selective attention worked in and across various domains of knowledge and it resulted in a variety of meanings. Sometimes their scope of attention was wider, so it included both the verb and the particle, and sometimes it was narrower and it focused only on one component. The process does not end here. If, e.g., their focus was on the particle, they again highlighted different facets of the construal depending on what cognitive processes were activated. In some cases their reasoning involved comparison involving mappings from one conceptual domain to another, so they offered a rich scale of construals varying from concrete to abstract. In some other cases their knowledge of the world, together with their knowledge of L1 and L2, communicated with different facets of perspective, which resulted in descriptions with salient elements tightly related to alternations in the position of the conceptualizer or spaces in or out of her/his dominion. In sum, the data presented in this work actually support three fundamental cognitive linguistic premises: a) language is not an autonomous cognitive faculty, b) grammar is conceptualization, and c) knowledge of language emerges from language use.[55]

Practical implications are various and quite self-evident, and they are primarily related to teaching English as L2. How and to what extent various factors affect the process of

[55] See Croft and Cruse (2004).

language acquisition, and how these factors are interrelated, has a most immediate relevance for how and what needs to be taught. We are going to mention two findings that have the most immediate practical implication which can be easily materialized and activated in practice. First, this research has shown that fine-grained semantic differences, such as aspects of verb-framed vs. satellite-framed languages, which seem not to have been previously considered in the area of SLA, are likely to play a very important role in the process of meaning construction in L2. Thus, the findings related to this specific influence of L1s on L2 can be easily integrated in L2 teaching methodology. Language educators can direct their learners to attend to those aspects of semantic structure that have been found to cause the greatest linguistic distance between their L1 and L2. For example, previously neglected grammaticalized meanings of particles can be explained and attended to in a meaningful and motivated way. Second, by investigating the role of language proficiency, we have shown tendencies that are characteristic for both proficient and less proficient learners. The characteristics of proficient learners and aspects of their strategic construal can be further explored and encouraged in the field of learning strategies and their development in language education. For example, the research results have shown that proficient learners tend to attend to both parts of a composite whole and identify abstract meanings more readily than less proficient learners. These aspects of their strategic thinking and meaning construction can be further explored and used as a solid starting point for encouraging those cognitive learning strategies that are conducive to faster and easier language acquisition and target language proficiency.

Finally, which research avenues can we follow from here? First, we could validate the findings by conducting a similar study with other particle verbs, or more specifically, with particle verbs containing other particles. Second, we could expand the qualitative analysis by comparing the strategic construal of particles in relation to different L1s. Third, we could introduce various potentially relevant variables pertaining to learners' individual differences and measure their influence on the strategic construal. All these and many other potential paths we could take are bound to lead to better understanding of what we believe is fundamental in scientific investigation of second language and its development: a) the interrelation between language and experience, and b) the interrelation between language and other cognitive processes. This triad consisting of

language, other cognitive process/abilities, and experience comprises the totality of factors and processes taking part in a tremendously complex phenomenon called language acquisition.

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7. Appendices

7.1. Appendix 1: Questionnaire used in the triangulation test to obtain metaphoric meanings

name_____ **date**_____

Example:
go over to pass above the top of something or somebody – *Planes were going over all night.* **(2)**
go over to spend more than you are allowed to – *Don't go over the speed limit.* **(3)**
wear out to make extremely tired – It's no good wearing yourself out so much by working so late. **(4)**

1. go out stop burning *You let the fire go out.*

1	**2**	**3**	**4**	**5**

2. go out date *They've been going out for 6 months.*

1	**2**	**3**	**4**	**5**

3. go out stop being fashionable *Flares went out years ago.*

1	**2**	**3**	**4**	**5**

4. take out go out socially with somebody *I'd like to take you out for a meal.*

1	**2**	**3**	**4**	**5**

5. take out pay for something to be insured *The earlier you take out a personal pension the better.*

1	**2**	**3**	**4**	**5**

6. take out remove *I'm afraid we'll have to take the tooth out.*

1	**2**	**3**	**4**	**5**

7. take out kill somebody *Police think he was taken out by a rival gang.*

1	**2**	**3**	**4**	**5**

8. put out switch something off *Put the lights out before you come to bed.*

1	**2**	**3**	**4**	**5**

9. put out make somebody go to sleep or unconscious *These pills should put him out for a few hours.*

1	**2**	**3**	**4**	**5**

10. put out broadcast, publish or issue *The programme will be put out on Channel Four.*

1	**2**	**3**	**4**	**5**

11. put out make a figure, result etc. wrong *A price increase put our estimates out by a thousand pounds.*

1	**2**	**3**	**4**	**5**

12. put out injure your back, shoulder, hip, etc. *I put my back out trying to lift that thing.*

1	**2**	**3**	**4**	**5**

13. put out extinguish, stop from burning *It took firefighters three hours to put out the blaze.*

1		**3**	**4**	**5**

14. put out make trouble, problems, extra work, etc. *I hope our arriving late didn't put you out at all.*

1	2	3	4	5

15. go in become hidden *The sun went in and the wind became cold.*

1	2	3	4	5

16. go in be understood *No matter how many times you tell him something it never seems to go in.*

1	2	3	4	5

17. go in fit into a container *I'm amazed hat all the luggage went in the car.*

1	2	3	4	5

18. take in make a piece of clothing narrower or tighter *The dress needs to be taken in at the waist.*

1	2	3	4	5

19. take in include *The new town takes in three former villages.*

1	2	3	4	5

20. take in make somebody believe something that is not true *How could I have been taken in by his charm?*

1	2	3	4	5

21. take in understand or absorb something *He just culdn't take in what had happened.*

1	2	3	4	5

22. put in officially make a claim *I've put in a request for some extra funding.*

1	2	3	4	5

23. put in spend time or effort doing something *I'll put in some extra hours today and have some time off tomorrow.*

1	2	3	4	5

24. put in install *I've just had central heating put in.*

	2	3	4	5

25. put in interrupt *"But she is rather inexperienced for the job…", put in Jane.*

1	2	3	4	5

26. put in elect political party as the government *The voters out the Conservatives in with a large majority.*

1	2	3	4	5

27. call out ask somebody to come and help you when there is an emergency *I've never had to call the doctor out at night.*

1	2	3	4	5

28. cut out stop working *The engine suddenly cut out.*

1	2	3	4	5

29 cut out prevent something from reaching somewhere *The blinds cut out the sunlight.*

1	2	3	4	5

30. cut out stop doing something *It's high time you cut out smoking.*

1	2	3	4	5

31. break out begin suddenly *Cholera has broken out in some of the refugee camps.*

1	2	3	4	5

32. break out become covered in something *I broke out in a cold sweat.*

1	2	3	4	5

33. break out to escape *The two men broke out of Brixton jail earlier this month.*

1	2	3	4	5

34. draw out make somebody feel less nervous or shy *Go and talk to her and try to draw her out a little.*

1	2	3	4	5

35. draw out make something last longer *Professor Newman drew his speech out endlessly.*

1	2	3	4	5

36. pull out stop being involved in something *The other firm wanted to pull out of the deal.*

1	2	3	4	5

37. pull out make somebody leave a place *UN troops have been pulled out of the danger zone.*

1	2	3	4	5

38. shut out stop something from entering *I tried to shut out the pain and keep going.*

1	2	3	4	5

39. shut out refuse to allow a person to share your thoughts, feelings etc. *Don't shut me out, I want to help you.*

1	2	3	4	5

40. write out write something and include all the necessary information *The doctor wrote out the prescription for me.*

1	2	3	4	5

41. call in send for somebody professional and official *The Drug Squad has been called in.*

1	2	3	4	5

42. call in make a short visit, usually on the way to another place *Could you call in at the store and get some milk.*

1	2	3	4	5

43. call in make a public request for a product to be returned *The company is calling in all 1987 models.*

1	2	3	4	5

44. cut in interrupt somebody's conversation *She cannot help cutting in all the time.*

1	2	3	4	5

45. break in wear something until it is comfortable *It will take months to break in these awful shoes.*

1	2	3	4	5

46. break in interrupt a conversation *"Sorry to break in, but you're wanted on the phone".*

1	2	3	4	5

47. break in get somebody accustomed to something new *There is a lot to learn, but we'll break you in gently.*

1	2	3	4	5

48. draw in to become dark earlier as winter approaches *It is October and the nights are already drawing in.*

1	2	3	4	5

49. pull in move to the side of the rod to stop *Pull in next to the van!*

1	2	3	4	5

50. pull in attract people in large numbers *The show is still pulling in the crowds.*

1	2	3	4	5

51. shut in trap or injure something by closing something tightly around it *I shut my finger in the car door.*

1	2	3	4	5

52. shut in close the entrances so that somebody/something cannot get out *They shut the dog in by mistake.*

1	2	3	4	5

53. write in write to ask or complain *Listeners are invited to write in with their suggestions.*

1	2	3	4	5

7.2. Appendix 2: Pilot questionnaire (a two-page sample)

Renata Geld, Faculty of Philosophy, University of Zagreb

PhD research - LINGUISTICS / APPLIED LINGUISTICS / SLA

Dear participants,

The aim of this research is to establish to what extent you are able to **make sense of idiomatic meanings of English phrasal verbs.**

Task

a) You have a list of 20 phrasal verbs (45 meanings). Each verb is followed by a short dictionary definition of its meaning and an example sentence.
b) Please go through the verbs one by one and try to do the following:

Explain the meaning of the phrase in your own words. Please, do not just re-phrase the definition from the dictionary, but try **to explain the meaning by making sense of the phrasal verb structure. Make sure to explain what it is in the phrase that produces this particular meaning.**

1) go out - stop burning - *You let the fire go out.*

_____

_____

_____

_____

_____

2) break in - wear something until it is comfortable - *It will take months to break in these awful shoes.*

_____

_____

_____

_____

_____

3) take out - to pay for something to be insured – *The earlier you take out a personal pension the better.*

4) call in - make a short visit, usually on the way to another place - *Could you call in at the store and get some milk?*

5) put out - injure your back, shoulder, hip etc. - *I put my back out trying to lift that thing.*

6) go in - become hidden - *The sun went in and the wind became cold.*

7.3. Appendix 3: Final research questionnaire (a two-page sample)

Renata Geld, Faculty of Philosophy, University of Zagreb

Dear participants,

The aim of this research is to establish to what extent you are able to **make sense of idiomatic meanings of English phrasal verbs.**

Task

c) You have a list of 20 phrasal verbs (45 meanings). Each verb is followed by a short dictionary definition of its meaning and an example sentence.
d) Please go through the verbs one by one and try to do the following:

Explain the meaning of the phrase in your own words. Please, do not just re-phrase the definition from the dictionary, but try **to explain the meaning by making sense of the phrasal verb structure. Make sure to explain what it is in the phrase that produces this particular meaning.**

1) go out - stop burning

_____

_____

_____

_____

_____

2) break in - wear something until it is comfortable

_____

_____

_____

_____

_____

3) take out - to pay for something to be insured

4) call in - make a short visit, usually on the way to another place

5) put out - injure your back, shoulder, hip etc.

6) go in - become hidden

7.4. Appendix 4: Participants' answers (a 20-page sample for the Croats)[56]

Participants' number	**particle verb** *participants' answers*	Y of study	No of Y of learning	comment
31	**break in – get somebody accustomed to something new** *You shake someone from his ordinary well-being into (=IN) something new. As if you break his old self and put him/her into something new/different.*	3	12	
32	**break in – get somebody accustomed to something new** *In refers to the beginning of sth, introduction of sth new. You suddenly involve sb into sth and then get them accustomed to the new situation.*	3	12	
33	**break in – get somebody accustomed to something new** *You can "break into" somebody's head and make them change their opinion*	3	9	
34	**break in – get somebody accustomed to something new** *To introduce sth new to someone. Like putting new ideas into sb's head.* *Break = come, enter, go* *IN = Into*	4	13	
35	**break in – get somebody accustomed to something new** *You try to get a doll "accustomed" to a new environment (a bottle in this case) so you have to break it in order to get it in the bottle.*	3	11	
36	**break in – get somebody accustomed to something new** *you get a new thing and then you go in(to) it by 'breaking' its system – by understanding it, you feel it is suitable for you*	3	12	

[56] The full learner corpora collected and used in this research can be obtained from the author.

37	**break in – get somebody accustomed to something new** *"break in" – to make sb's old view of a new thing (usually as sth unacceptable) change in the way that person thinks it is now acceptable. "In" – 'get into sb's mind' in order to make this change*	3	12
38	**break in – get somebody accustomed to something new** *- to adapt sb so that he/she is able to function within new "boundaries"*	3	15
39	**break in – get somebody accustomed to something new** *To suggest somebody a completely new idea in order to accustom smb to it. You actually break in his/her mind gradually.*	3	12
40	**break in – get somebody accustomed to something new** *"Break" implies a clear cut from the usual activities. Something new comes after a break.*	3	12
31	**break in – interrupt a conversation** *If you break in it's like breaking sth and putting oneself into smw you previously were not.*	3	12
32	**break in – interrupt a conversation** *Similar as in "cut in", particle in suggests that you've interrupted sth.*	3	12
33	**break in – interrupt a conversation** *You break the flow of somebody's speech and jump in the conversation*	3	9
34	**break in – interrupt a conversation** *Break = stop, destroy, prevent* *in = in the middle of sth, into sth*	4	13
35	**break in – interrupt a conversation** *When you interrupt a conversation you break in it and "tear it apart".*	3	11
36	**break in – interrupt a conversation** *you break into a conversation and shatter it like a cup or something similar*	3	12
37	**break in – interrupt a conversation** *break in – to say something in the middle of a conversation going on and breaking the predictable and normal flow of the conversation*	3	12

38	**break in – interrupt a conversation** *→ I see a conversation as a line, continuous line that stretches between two people (or more), and then someone comes later and interrupts it by "breaking" it, by disturbing/breaking this continuous line*	3	15
39	**break in – interrupt a conversation** *When you break into a room and ask a question, you interrupt somebody's conversation. You in a way break their communication. They stop talking in order to listen to you.*	3	12
40	**break in – interrupt a conversation** *"Break in" because people who interrupt conversations are like burglars who break in and interrupt you in doing sth*	3	12
31	**break in – wear something until it is comfortable** *An act in which a person as if breaks the invisible boundaries that are put in front of her/him in the shape of the unstreched clothes.*	3	12
32	**break in – wear something until it is comfortable** *Break in → to "break" sth while being in that particular thing → after a while it becomes larger and comfortable.*	3	12
33	**break in – wear something until it is comfortable** *If your trousers are very tight, you have to squeeze yourself in. Thus, you become a burglar in a way, just that there is no real "breaking & entering"*	3	9
34	**break in – wear something until it is comfortable** *To enter something and change it in a way that it suits you.*	4	13
35	**break in – wear something until it is comfortable** *You buy a new shirt and it is too tight so you have to get in it by breaking a few threads (not stitches!) (you adjust it to your body).*	3	11
36	**break in – wear something until it is comfortable** *you 'break' a garment until it becomes 'part of you'*	3	12

37	**break in – wear something until it is comfortable** *"break" suggests that sth is stopped, some kind of continuity is interrupted* *"in" – I can see no relation to the meaning of the PHRV*	3	12
38	**break in – wear something until it is comfortable** *→ break as in make something, like a shoe, more flexible and soft, <u>in</u> implies that this 'breaking' happens within a certain form, such as a shoe, ex. – make sth more comfortable without breaking the form*	3	15
39	**break in – wear something until it is comfortable** *You break in too small and uncomfortable trousers. You wear it and after some time they become comfortable.*	3	12
40	**break in – wear something until it is comfortable** *(I cannot make any sense out of this one, sorry!)*	3	12
31	**break out – become covered in something, like in sweat or rash** *Sweat comes out of your body, or sth else fast & uncontrollably.*	3	12
32	**break out – become covered in something, like in sweat or rash** *If sth breaks out it suddenly appears somewhere, so out may refer to sth appearing.*	3	12
33	**break out – become covered in something, like in sweat or rash** *Sweat comes out from each pore on your body*	3	9
34	**break out – become covered in something, like in sweat or rash** *Something came out of you (e.g. sweat, rash). First it was inside and it came out.*	4	13
35	**break out – become covered in something, like in sweat or rash** *Drops of sweat have to break out through the skin in order to get to its surface which results in the skin being covered in sweat.*	3	11
36	**break out – become covered in something, like in sweat or rash** *sweat or something becomes visible on your skin – it escapes from you – it 'breaks out'*	3	12
37	**break out – become covered in**	3	12

	something, like in sweat or rash *"break out" – out of the dream* *- stop sleeping* *→ a nightmare*		
38	**break out – become covered in something, like in sweat or rash** *- to appear on the surface of sth; usually suddenly;* *'break' = to break the form and come 'out' (on the surface)*	3	15
39	**break out – become covered in something, like in sweat or rash** *When you are in an embarrassing situation and you feel ashamed sweat breaks out from your body.*	3	12
40	**break out – become covered in something, like in sweat or rash** *Sweat or rash cover the skin fairly quickly, so it is a sudden change; it disrupts the normal situation (that's why "break" is used).*	3	12
31	**break out – begin suddenly** *When sth breaks out – means it came out of nowhere and broke so fast like glass can break.*	3	12
32	**break out – begin suddenly** *Out suggests here that sth suddenly appeared or started.*	3	12
33	**break out – begin suddenly** *- a chicken breaks the egg shell in order to get out and begin a new life*	3	9
34	**break out – begin suddenly** *Break = to change, to do sth suddenly* *Out = to come into open, to begin, to exist*	4	13
35	**break out – begin suddenly** *When something begins suddenly, it breaks out from the place where it was before the break-out.*	3	11
36	**break out – begin suddenly** *something is hidden for a long time and then it suddenly breaks its place and goes out – volcano for instance*	3	12
37	**break out – begin suddenly** *"break out" → suggests a change*	3	12
38	**break out – begin suddenly** *→ I imagine a normal/peaceful situation in which suddenly people/things start to behave different (often violently),* *break →→→ out*	3	15
39	**break out – begin suddenly**	3	12

40	**break out – begin suddenly** *A sudden event is a clear cut from the usual activity. "Break" implies this suddenness, and it is a break from these usual activities.*	3	12
31	**break out – escape** *When you break out it means you are no longer in but out. You might have fled – but if the danger is in – it's safe now – you're out.*	3	12
32	**break out – escape** *In this case out suggests that sb is leaving a place, but you can also break out from e.g. a daily routine.*	3	12
33	**break out – escape** *one breaks a wall in order to get out of the prison*	3	9
34	**break out – escape** *break = to destroy sth, to dislocate, to dismember sth* *OUT = from some closed space*	4	13
35	**break out – escape** *If you are captured in a house, you break the door and get out.*	3	11
36	**break out – escape** *you break the door and then you go out from the place you were in*	3	12
37	**break out – escape** *break – makes me think of an act of breaking a window* *out – leave a place (inner)*	3	12
38	**break out – escape** *→ we go out of sth / we "break" it in order to go away, to escape*	3	15
39	**break out – escape** *To break something, such as a window with a hammer in order to escape from the house when there's a fire and the door is locked.*	3	12
40	**break out – escape** *Escaping means "getting out". To escape, one often needs to break a fence of some sort.*	3	12
31	**call in – make a public request for a product to be returned** *If you call in it so you talked to all and every, invited them all (the public) in the matter / but you might better speak to a manager only.*	3	12
32	**call in – make a public request for a product to be returned**	3	12

	Maybe, in this case in suggests that sth is being interrupted; e.g. sale of certain faulty products.		
33	**call in – make a public request for a product to be returned** *You call for a bad product to "come into" the firm which has produced it.*	3	9
34	**call in – make a public request for a product to be returned** *Call = ask, look for* *in = remove it from out and out it in*	4	13
35	**call in – make a public request for a product to be returned** *You call a product which is somewhere outside and you get it in.*	3	11
36	**call in – make a public request for a product to be returned** *call – you imagine a product is alive, so you call it in – you want it to return in(to) its original place*	3	12
37	**call in – make a public request for a product to be returned** *call – to ask sbd to do sth* *in – when a product is returned to the manufacturer, it is taken back <u>in</u> the factory*	3	12
38	**call in – make a public request for a product to be returned** *- to call in → to call/address other people and ask them to return sth ("in" implies this backward movement) when used with 'call'*	3	15
39	**call in – make a public request for a product to be returned**	3	12
40	**call in – make a public request for a product to be returned** *"Call in" because it's like one took a list and called all the people who bought it and they came to your shop/office to bring it back*	3	12
31	**call in – make a short visit, usually on the way to another place** *You make a call and you come in somewhere. The visit might be short as if lasting as a longer telephone call.*	3	12
32	**call in – make a short visit, usually on the way to another place** *In can refer to arriving at a particular place. Call (N) is a short visit; if you call in you make a short visit.*	3	12

33	**call in – make a short visit, usually on the way to another place** *The visit is short, so you just put your head through the door and you yell that you came.*	3	9
34	**call in – make a short visit, usually on the way to another place** *To call someone who is in the street to enter your house for a short while so you can have a little chat. } the verb reminds me of this situation. → To come into someone's house and say "hello".*	4	13
35	**call in – make a short visit, usually on the way to another place** *You see a friend, <u>call</u> his name and get <u>in</u> his house. So, you call in.*	3	11
36	**call in – make a short visit, usually on the way to another place** *it is short like a phone 'CALL', only that you go 'IN', instead of phoning*	3	12
37	**call in – make a short visit, usually on the way to another place** *- "call" – to contact sb, even if it means just to say "hallo"* *- "in" – to enter a place*	3	12
38	**call in – make a short visit, usually on the way to another place** *→ on our way to somebody's house/or any other place; we make a short stop, visit someone for ex. ; when we call sb – we contact other person: verb + in → we go somewhere, to a place*	3	15
39	**call in – make a short visit, usually on the way to another place** *You are going on work but then you get a phone call from the hospital that your blood tests are over.*	3	12
40	**call in – make a short visit, usually on the way to another place** *Such a visit is so short that it resembles a call. "In" because one just drops in and out.*	3	12
31	**call in – send for somebody professional and official** *You call someone to come in your office or have someone call that person for you.*	3	12
32	**call in – send for somebody professional and official** *If you call in for somebody you call them to take part in a certain activity, involve them in sth. In suggests the idea of being*	3	12

	involved in sth.		
33	**call in – send for somebody professional and official** *After you have called for someone, he/she enters your office*	3	9
34	**call in – send for somebody professional and official** *Call = ask to come, invite* *IN = in your presence, to come to you (because you have a certain need)*	4	13
35	**call in – send for somebody professional and official** *When you need professional help you call a professional to come into your home, office, etc. and help you*	3	11
36	**call in – send for somebody professional and official** *- call – scream, talk* *- in – you want sbdy to come to the place where you are*	3	12
37	**call in – send for somebody professional and official** *"call" – to search for sth* *"in" – to get sb come to a place; somewhere*	3	12
38	**call in – send for somebody professional and official** *→ we ask for somebody in particular; <u>in</u> reminds me of the fact that we call that person to come to us, to come 'in'*	3	15
39	**call in – send for somebody professional and official** *The police called him in for questioning. They called him to ask him some questions about the case.*	3	12
40	**call in – send for somebody professional and official** *Non-professional or non-official people are like a group in which a professional/official person will be called*	3	12
31	**call out – ask somebody to come and help you when there is an emergency** *You are yelling, calling, shouting for a person to come and help you. And you are doing it really loudly. You are letting it completely out of yourself. <u>You don't keep anything inside yourself!</u>*	3	12
32	**call out – ask somebody to come and help you when there is an emergency** *If you call out sb you make them leave a place and come to help you.*	3	12

33	**call out – ask somebody to come and help you when there is an emergency** *When you need help, you release a sound out into the world so somebody could hear you and help you.*	3	9
34	**call out – ask somebody to come and help you when there is an emergency** *Call = to scream, to let out your voice* *Out = to scream in the open; out, so that everyone can hear you*	4	13
35	**call out – ask somebody to come and help you when there is an emergency** *Let's say you have an accident outside, so you call somebody (who is in the house) out to help you.*	3	11
36	**call out – ask somebody to come and help you when there is an emergency** *call – talk, scream* *out – you are so loud that whole world can hear you*	3	12
37	**call out – ask somebody to come and help you when there is an emergency** *"call" suggests inviting somebody to come somewhere or do sth* *"out" – covering the area outside of the emergency situation*	3	12
38	**call out – ask somebody to come and help you hen there is an emergency** *→ to shout; to call people to help; our calling is directed towards other people (therefore → 'out')* *call → out*	3	15
39	**call out – ask somebody to come and help you when there is an emergency** *To call somebody to come and help you, for example when there is a car crash and somebody is hurt.*	3	12
40	**call out – ask somebody to come and help you when there is an emergency** *An emergency/disaster/accident is like a hole. One cries out of the hole hoping someone will hear and come to help.*	3	12
1	**go in – be understood** *when your idea goes in somebody's head, it is in their mind and they understand it*	4	13
2	**go in – be understood** *goes inside your head and makes sense*	4	19

3	**go in – be understood** *If something goes in, it means that the person to whom it is referred to gets the point of it.*	4	13
4	**go in – be understood** *become comprehended; get into your head*	4	14
5	**go in – be understood** *if information 'goes in' the brain, it becomes its part and can be understood ('go' – action, 'in' – direction, sort of)*	3	14
6	**go in – be understood** *'in' – inside your brain, in your mind; 'go' – the process of information getting into your brain, being processed and realized*	3	12
7	**go in – be understood** *to go into your mind, into your head which means that you understand it unlike information that are outside your capability to understand them*	3	8
8	**go in – be understood** *you go through the mental door of the person doing the understanding and you're in*	3	16
9	**go in – be understood** *our brain receives and keeps only information it can understand and when a piece of information is understood it can 'go in' and 'enter' our brain*	4	12
10	**go in – be understood** *when something is understood, it means that ideas or thoughts want 'in' your brain*	3	13
58	**go in – be understood** *Be understood as in a way some piece of information goes in one's memory, mind.*	3	12
59	**go in – be understood** -	4	13
60	**go in – be understood** *If you enter someone's reality then you are in it*	3	15
61	**go in – be understood** *- obviously, it refers to what one person is saying to another* *IN = as in one's head <u>mind</u>* *GO = <u>active</u> process*	3	13
62	**go in – be understood** *Maybe the information goes in your head, or brain if it doesn't it means you didn't understand it*	4	12
63	**go in – be understood** *if you go in, you go in sb's brain so he can clearly understand him*	4	16

64	**go in – be understood** *- when there is a problem and you talk to people – go in – means that you resolved it, that others understand you. You have control over them and over your speech.*	4	12
1	**go in – become hidden** *when you go inside a place (house…) people who are outside cannot see you*	4	13
2	**go in – become hidden** *in indicates something inside of something, hidden, invisible, behind something else that blocks the view of that*	4	19
3	**go in – become hidden** *To go in means to stop being visible either because something covers us or because we go around something.*	4	13
4	**go in – become hidden** *enter something that will prevent others to see you*	4	14
5	**go in – become hidden** *this one seems simple – 'in' – when something is 'in', we can't see it, it's hidden, and 'go' is the action that made it become 'in', i.e. hidden*	3	14
6	**go in – become hidden** *to go inside a dark place, like a basement or a closet, somewhere you cannot be seen (you are hidden)*	3	12
7	**go in – become hidden** *if you go in somewhere, you leave one place, which means you are no longer there and you are not visible to anyone there, you are hidden to them*	3	8
8	**go in – become hidden** *you enter a hiding place – go in it, so you become hidden*	3	16
9	**go in – become hidden** *the metaphor of a turtle or a snail who can withdraw/go inside into its shell if it wants to hide or protect itself*	4	12
10	**go in – become hidden** *if you go in or enter a closed place, you are no longer visible to the outer world, you are hidden in that place*	3	13
58	**go in – become hidden** *f. e. the sun went in – it vanished*	3	12
59	**go in – become hidden** *when we go in somewhere (e.g. house) we can't be seen from the outside so we become hidden*	4	13

60	**go in – become hidden** *If you are in, it means closed space and therefore it is not possible to see you from the outside*	3	15
61	**go in – become hidden** *- in – suggests confinement, closed space* *- go – activity, movement*	3	13
62	**go in – become hidden** *When sth is out it can be seen by everyone and when it is "in" sth it cannot be seen, it is hidden*	4	12
63	**go in – become hidden** *- to go in some place (e.g. to go deep into the forest, to go in the cave) to be <u>in</u> some place, where you want to escape the everyday hustle and bustle and be alone or with sb you really love.* *- to be in sb's arms, or to go in sb's arms, meaning to be protected from the outside world full of prejudice, dangers and all the things that make this world so pathetic and cruel.*	4	16
64	**go in – become hidden** *- to go somewhere where nobody can see you, to enter the place which is closed*	4	12
1	**go out – stop being fashionable** *when somebody goes out of a place, room, they are not present anymore*	4	13
2	**go out – stop being fashionable** *when something is outdated, no longer interesting, something is out of fashion*	4	19
3	**go out – stop being fashionable** *If something goes out, it is no longer used.*	4	13
4	**go out – stop being fashionable** *stop being in fashion; come out of it*	4	14
5	**go out – stop being fashionable** *'out' is associated with some kind of an end, while 'go' is a process, the action, leaving the premises of the domain of 'fashionable' (out → outside)*	3	14
6	**go out – stop being fashionable** *'in' means fashionable, so 'out' is the opposite; 'go' is the process of becoming unfashionable; 'out' – something unaccepted, discarded*	3	12
7	**go out – stop being fashionable** *'go' implies a movement, and out means that something is no longer in one place; so this would mean to go somewhere else, to disappear, to not be fashionable anymore*	3	8

8	**go out – stop being fashionable** *to 'be in' means to be fashionable, to be inside a circle of cool people; when you're not in anymore, you go out*	3	16
9	**go out – stop being fashionable** *when something/somebody is fashionable it is 'in' (the world of fashion), and when it is not in touch with the latest fashion → it is 'out'; so something can go from being 'in' to being 'out'*	4	12
10	**go out – stop being fashionable** *when something is fashionable, it is modern, it is 'in'; when you go out, you are no longer in a place, state or condition, metonymically, in fashion*	3	13
58	**go out – stop being fashionable** *Not wanting to follow some pattern anymore. Out as leave.*	3	12
59	**go out – stop being fashionable** *when sth goes out means it time has ended so when sth (e.g. a skirt) goes out it means it is no longer fashionable*	4	13
60	**go out – stop being fashionable** *Going out of given parameters makes a Subject different*	3	15
61	**go out – stop being fashionable** *out – prep. suggests literal meaning, perhaps, person literally gets out of clothes she doesn't like, that are not fashionable anymore*	3	13
62	**go out – stop being fashionable** *Sth is in fashion, like the fashion is moving and the clothes are still so when fashion moves all the clothes go out of it*	4	12
63	**go out – stop being fashionable** *if sth goes out it stops being fashionable, cause it is no longer a part of the mainstream society → it mean that sth goes out of the mainstream society, it goes out of everyday life, it stops being a part of everyday life*	4	16
64	**go out – stop being fashionable** *I think it means in connection with fashion when for example my trousers go out they are old and I am out of fashion then. Sometimes, it's a fashion but when it's not a fashion they went out.*	4	12

1	**go out – stop burning** *when a person goes out of a house, you don't see them anymore, in a way the person disappears; fire also disappears after burning*	4	13
2	**go out – stop burning** *when somebody goes out it means he has left the room, isn't physically present, so fire is not physically present when it goes out*	4	19
3	**go out – stop burning** *If something goes, it has continuation, existence; if it goes out, it stops existing.*	4	13
4	**go out – stop burning** *to get out of a certain condition or state*	4	14
5	**go out – stop burning** *'go' could be associated with burning, as some kind of continual process; and 'out' could mean 'stop', that is 'gone', 'finished'*	3	14
6	**go out – stop burning** *'out' – to stop, to disappear, to not be present anymore; 'go' – the process of fire becoming smaller and smaller until it extinguishes completely → 'out'*	3	12
7	**go out – stop burning** *if something goes out, it is not in a particular place anymore; if the fire stops burning, it is no longer visible, we can say it is not there anymore*	3	8
8	**go out – stop burning** *when a flame goes out, it is not in our existence anymore – it is out of it*	3	16
9	**go out – stop burning** *fire usually goes out: its force fades away – sparks go out and 'leave' the fire which thus extinguishes*	4	12
10	**go out – stop burning** *if something goes out, then it stops being in that place or condition*	3	13
58	**go out – stop burning** *Go out structure can mean stop burning in a way – the fire went out.*	3	12
59	**go out – stop burning** *when sth burns we imagine it as going, and when it goes out we see it as finished burning*	4	13
60	**go out – stop burning** *If "go" means movement, "out" is opposite of "inside" it makes sense because if something (fire) goes out it is not there.*	3	15

61	**go out – stop burning** *The flame possess a sort of energy, like a life force, so when the fire's extinguished it goes <u>out</u>, it's energy disappears*	3	13
62	**go out – stop burning** *The fire was here and now it's gone out, it's not here any more.*	4	12
63	**go out – stop burning** *to go out usually means <u>stop</u> being in some place, <u>to leave</u> the place* *this out more closely defines the meaning of this phrasal verb*	4	16
64	**go out – stop burning** *for e.g. when a candle burns by the time it disappears and goes away*	4	12
1	**put in – elect a political party as the government** *you take something/somebody and put it **in** a place (office…), in a certain position*	4	13
2	**put in – elect a political party as the government** *when you vote for someone in elections*	4	19
3	**put in – elect a political party as the government** *If you put in, you choose a particular party and make it the party in power.*	4	13
4	**put in – elect a political party as the government** *put a party into a position of governing*	4	14
5	**put in – elect a political party as the government** *we could imagine this literally, as 'putting' members of a party 'in' = inside a building of parliament*	3	14
6	**put in – elect a political party as the government** *when you want to elect a party, you have to vote – you 'put' your votes 'in' the ballot box → the party with the most votes 'put in' is elected*	3	12
7	**put in – elect a political party as the government** *'to put' means to place something somewhere, and 'in' would mean a higher position or a visible place*	3	8
8	**put in – elect a political party as the government** *by electing a party you put them into the institution of the government*	3	16

9	**put in – elect a political party as the government** *you put somebody/something in a particular position or inside something*	4	12
10	**put in – elect a political party as the government** *in a metaphorical sense you 'put' a party in the government by electing it*	3	13
58	**put in – elect a political party as the government** *To put = to place sth somewhere* *in = as in government system*	3	12
59	**put in – elect a political party as the government** -	4	13
60	**put in – elect a political party as the government** *Elect someone and accept it as your own, incorporating it in your world of ideas and wishes*	3	15
61	**put in – elect a political party as the government** *IN – to put your vote literally in the box*	3	13
62	**put in – elect a political party as the government** *Put that party in the government seat*	4	12
63	**put in – elect a political party as the government** *- to put in a political party actually means to put/place that political party in a Parliament or in a government so that the political party becomes a part of a political life, it becomes a part of government*	4	16
64	**put in – elect a political party as the government** *- when you vote for a certain party or (give your vote) on the polling stations*	4	12
1	**put in – interrupt** *when you put something in a place (inside), then the situation inside is not the same, it has changed*	4	13
2	**put in – interrupt** *when you interrupt something in the middle*	4	19
3	**put in – interrupt** *If you put in, you say something at the same time as someone else is talking so that they must quiet themselves in order to listen to you.*	4	13
4	**put in – interrupt** *put yourself in a position that would interrupt something*	4	14

5	**put in – interrupt** *'put' – the action of getting yourself 'in' – into something that you maybe shouldn't be part of*	3	14
6	**put in – interrupt** *when you interrupt, for example, a conversation, you 'put' your words and speech between the 2 people you are interrupting → the speech is in between*	3	12
7	**put in – interrupt** *it would be to place something inside somewhere thus making a stop to something else*	3	8
8	**put in – interrupt** *you put something into something which is happening and so you interrupt it*	3	16
9	**put in – interrupt** *to cut somebody off in order to put in a comment of yours, i.e. to put your comment in the sequence you have interrupted*	4	12
10	**put in – interrupt** *if you put something in between two things, then the connection between these two things changes, it is no longer the same, something interferes or interrupts it*	3	13
58	**put in – interrupt** *As in written text to put another sentence in – add a sentence.*	3	12
59	**put in – interrupt** **--**	4	13
60	**put in – interrupt** *A strange thing is suddenly in an environment which has its own routine*	3	15
61	**put in – interrupt** *IN – literally, to put sth in someone's mouth so that they shut pup*	3	13
62	**put in – interrupt** *Don't know!*	4	12
63	**put in – interrupt** *to put yourself/your word <u>in</u>/to sb's mouth thus interrupting him in his speech or in what he was doing until then*	4	16
64	**put in – interrupt** *When you want to say sth and while someone is speaking you put in your words and on that way you interrupt him/her*	4	12
1	**put in – officially make a claim for something** *you go to an office, take a document/claim and you put it on the desk and the person responsible takes and brings it in*	4	13

2	**put in – officially make a claim for something** *you submit something or talk in a nice way about somebody you apply formally for something*	4	19
3	**put in – officially make a claim for something** *To put in means to demand certain rights from the authorities.*	4	13
4	**put in – officially make a claim for something** *bring your claim to the official instances*	4	14
5	**put in – officially make a claim for something** *again, 'put' is for the action, i.e. it denotes action, while 'in' refers to the direction of the action – put in the open, made known*	3	14
6	**put in – officially make a claim for something** *'put' – to put your request on the table, to make it known so that it can be considered; 'in' – the institution in which you're making a request → the place where you put your claim so that it can be reviewed*	3	12
7	**put in – officially make a claim for something** *it would mean to place something somewhere, inside a system so it can be processed*	3rd	8
8	**put in – officially make a claim for something** *you put your claim in a file of other claims or you insert (put) it into the official machinery*	3	16
9	**put in – officially make a claim for something** *you have something written down on a piece of paper and you submit it by placing/putting it somewhere and once you've done this, the document is 'in', taken care of by an official person and you've accomplished your goal*	4	12
10	**put in – officially make a claim for something** *I cannot see the connection*	3	13
58	**put in – officially make a claim for something** *To put in a few words about sth; to say sth.*	3	12

59	**put in – officially make a claim for something** *I see this as – we have a written claim so we come into somebody's office and put the claim in a some kind of a box for*	4	13
60	**put in – officially make a claim for something** *To avoid disturbance put your wishes and demands on a piece of paper and in the official box where an authorised person will find it and hopefully do something about it*	3	15
61	**put in – officially make a claim for something** *submit* *→ obviously, literal meaning developed into something little more abstract, maybe a historical importance.*	3	13
62	**put in – officially make a claim for something** *There is a place where you have to go to make an official claim, you have to put your claim in there*	4	12

7.5. Appendix 5: Participants' answers (a 20-page sample for the Mexicans)

Participants' number	**particle verb** *participants' answers*	Y of study	No of Y of learning	Comment
69	**break in – get somebody accustomed to something new** *Pad a dog (Pet) and make it break in*	4	5	
70	**break in – get somebody accustomed to something new** *to break the customs of a person to get him accustomed in something else.*	3	5	
71	**break in – get somebody accustomed to something new** *To break the tension and oddness for somebody in order to make him/her comfortable "in" it.*	3	3	
72	**break in – get somebody accustomed to something new** *It is to make someone break the habitual and form part of that new surrounding by 'getting' in it, by forming part of it.*	3	18	
73	**break in – get somebody accustomed to something new** *You break old customs in order to do new things.*	2	14	
74	**break in – get somebody accustomed to something new** *break into something so as to get used to being there*	1	14	
75	**break in – get somebody accustomed to something new** *To get used to something.* *Stop get close to somebody or something.*	3	12	
69	**break in – interrupt a conversation** *you are having a nice conversation and someone breaks in and asks something*	4	5	
70	**break in – interrupt a conversation** *To get in a conversation violently while other person is speaking.*	3	5	
71	**break in – interrupt a conversation** *to break the conversation by getting in it.*	3	3	

72	**break in – interrupt a conversation** *When you interrupt a conversation, you are breaking it, your intention breaks the fluency of the conversation*	3	18
73	**break in – interrupt a conversation** *Someone comes in and breaks a pile a wood representing the conversation.*	2	14
74	**break in – interrupt a conversation** *break the flow of a conversation in order to form part of it*	1	14
75	**break in – interrupt a conversation** *It's like cut or block an action*	3	12
69	**break in – wear something until it is comfortable** *change and change some clothes until it wears comfortable*	4	5
70	**break in – wear something until it is comfortable** *With some clothes (like jeans) you have to wear them to make them fit your body and in doing so you break the fabric a little.*	3	5
71	**break in – wear something until it is comfortable** *Figuratively breaking something, if it is too tight you moulded it, until fits right.*	3	3
72	**break in – wear something until it is comfortable** *It is to force a piece of clothe in order to make it fit someone. until it does not hurts him her*	3	18
73	**break in – wear something until it is comfortable** *Some garment is really tight and you want the seams to "give", break*	2	14
74	**break in – wear something until it is comfortable** *break the stiffness of clothing by wearing it*	1	14
75	**break in – wear something until it is comfortable** *To get used to something.* *Stop feeling limited.*	3	12
69	**break out – become covered in something, like in sweat or rash** *he broke out after playing basketball*	4	5
70	**break out – become covered in something, like in sweat or rash** *When you work out your body pours out sweat.*	3	5

71	**break out – become covered in something, like in sweat or rash** *Something hidden becomes visible.*	3	3
72	**break out – become covered in something, like in sweat or rash** *The things that cover your skin break out from your skin, thus sweat gets out.* *(breaks out) Break your skin and gets out from it*	3	18
73	**break out – become covered in something, like in sweat or rash** *usually sweat & rash come out on your skin, they get through the layers of the skin.*	2	14
74	**break out – become covered in something, like in sweat or rash** *illness breaking its way out of the skin*	1	14
75	**break out – become covered in something, like in sweat or rash** *To get exhausted after performing an activity for a long period of time*	3	12
69	**break out – begin suddenly** *the boy suddenly break out crying*	4	5
70	**break out – begin suddenly**	3	5
71	**break out – begin suddenly** *Like storms that break out, of nowhere to break from the inside to the outside*	3	3
72	**break out – begin suddenly** *You suddenly break inactivity and start doing something*	3	18
73	**break out – begin suddenly** *A bomb is dropped and there's a huge explosion, its a sudden start.*	2	14
74	**break out – begin suddenly** *break from the state of doing nothing so as to start something*	1	14
75	**break out – begin suddenly** *It's like an explosive dismemberment.*	3	12
69	**break out – escape** *he broke out form jail!*	4	5
70	**break out – escape** *to get out of a place in a sudden way. Like breaking a chain or a door lock to escape.*	3	5
71	**break out – escape** *to break enclosure and go out of it.*	3	3
72	**break out – escape** *When you escape, and you stop being shut up, you break out from that room or space.*	3	18

73	**break out – escape** *I imagine a prisoner kicking the walls of a prison and breaking them*	2	14
74	**break out – escape** *breaking the wall of a prison in order to escape*	1	14
75	**break out – escape** *It's like an explosive dismemberment*	3	12
69	**call in – make a public request for a product to be returned** *Call in for the money is right when something is not worth it!*	4	5
70	**call in – make a public request for a product to be returned** *To call a company to make them know you want something in the market*	3	5
71	**call in – make a public request for a product to be returned** *to call the customer service to take its product into their business.*	3	3
72	**call in – make a public request for a product to be returned** *You are calling in order to obtain back your product.*	3	18
73	**call in – make a public request for a product to be returned** *I imagine someone going to the company building and picking up a telephone used for complaints.*	2	14
74	**call in – make a public request for a product to be returned** *call inside public knowledge to ask for a product to be returned*	1	14
75	**call in – make a public request for a product to be returned** *to join, to come together asking for help, or asking for something.*	3	12
69	**call in – make a short visit, usually on the way to another place** *I call in my Guarding in the hospital*	4	5
70	**call in – make a short visit, usually on the way to another place** *If you call someone in you just need to talk with him for a minute and then you continue with what you were doing*	3	5
71	**call in – make a short visit, usually on the way to another place** *To call in at somebody's house for a brief period of time is like to ask for admission at some place unexpectedly.*	3	3

72	**call in – make a short visit, usually on the way to another place** *It really does not make ANY sense to me. Sorry…*	3	18
73	**call in – make a short visit, usually on the way to another place** *Since you don't have a lot of time you squeeze in another appointment, but you usually call before going*	2	14
74	**call in – make a short visit, usually on the way to another place** *arrive to house asking for entrance and to remain a while*	1	14
75	**call in – make a short visit, usually on the way to another place** *Ask permission to get into a place: classroom, house etc.*	3	12
69	**call in – send for somebody professional and official** *I am calling the police in if you don't go!*	4	5
70	**call in – send for somebody professional and official**	3	5
71	**call in – send for somebody professional and official** *A doctor, for example, when you call him in you asks for his help in a given situation*	3	3
72	**call in – send for somebody professional and official** *You are the one that calls and you do it <u>in</u> the place of that somebody. In a way you enter his place by calling him of by asking him for help.*	3	18
73	**call in – send for somebody professional and official** *When you need help, you usually use the telephone to tell them to come to your house.*	2	14
74	**call in – send for somebody professional and official** *call someone to come into your problems to solve it.*	1	14
75	**call in – send for somebody professional and official** *It's like asking or ordering to come near.*	3	12
69	**call out – ask somebody to come and help you when there is an emergency** *When you call out the ambulance.*	4	5

70	**call out – ask somebody to come and help you when there is an emergency** *In an emergency a person usually runs out to the street or something to find people and call for help.*	3	5
71	**call out – ask somebody to come and help you when there is an emergency** *You call someone to go "out" from wherever he/she is in order to help in a difficult situation*	3	3
72	**call out – ask somebody to come and help you when there is an emergency** *You "call" someone and ask him to get "out" from where he is in order to be with you.*	3	18
73	**call out – ask somebody to come and help you when there is an emergency** *When things are an emergency, you usually start yelling*	2	14
74	**call out – ask somebody to come and help you when there is an emergency** *calling outside of yourself so as to attract someone who'll help*	1	14
75	**call out – ask somebody to come and help you when there is an emergency** *To call somebody in a loud voice or to start talking in a loud voice call the attention of others*	3	12
69	**cut in – interrupt somebody's conversation** *Somebody is having a nice talk with someone and suddenly a person interrupts the conversation*	4	5
70	**cut in – interrupt somebody's conversation**	3	5
71	**cut in – interrupt somebody's conversation** *To cut the conversation in order to be <u>in</u>cluded <u>in</u> it*	3	3
72	**cut in – interrupt somebody's conversation** *"Cut" because you stop the conversation and "in" because the action implies the movement of going 'in'*	3	18
73	**cut in – interrupt somebody's conversation** *You are talking to someone and someone else comes with his giant scissors and cuts the thread of communication.*	2	14

74	**cut in – interrupt somebody's conversation** *cut the line of conversation by going into it and interrupting*	1	14
75	**cut in – interrupt somebody's conversation** *Again, it's like removing something. In this case, it's an interruption.*	3	12
69	**cut out – prevent something from reaching somewhere** *the man asked him to cut it out! before they fight*	4	5
70	**cut out – prevent something from reaching somewhere** *To cut the line of dynamite to prevent it from blowing up.*	3	5
71	**cut out – prevent something from reaching somewhere** *To cut somebody's opportunity from reaching a promotion.*	3	3
72	**cut out – prevent something from reaching somewhere** *You 'cut' the possibility for something to reach a purpose, you leave him 'out' of the way.*	3	18
73	**cut out – prevent something from reaching somewhere** *You don't let anywhere pass by. Like with a barricade*	2	14
74	**cut out – prevent something from reaching somewhere** *stop something from coming in* *leaving it out*	1	14
75	**cut out – prevent something from reaching somewhere** *To stop doing something that may cause problems.* *warning*	3	12
69	**cut out – stop doing something** *when there is someone bothering and you ask to cut out!*	4	5
70	**cut out – stop doing something**	3	5
71	**cut out – stop doing something** *like a fight or an argument, you cut yourself out of it .*	3	3
72	**cut out – stop doing something** *You cut the fact of doing something, as if with scissors you were cutting your activity.*	3	18

73	**cut out – stop doing something** *It's like a chain of tasks, and suddenly something happens and it stops, its cut.*	2	14
74	**cut out – stop doing something** *cut the action one is performing*	1	14
75	**cut out – stop doing something** *It's like removing something far away. In this case it's more than removing, it's like leaving out or stop something.*	3	12
69	**cut out – stop working** *When they ask the miners to cut out working*	4	5
70	**cut out – stop working** *to stand out of what you are doing suddenly.*	3	5
71	**cut out – stop working** *You cut out your activities in order to take a break. Cut the energy out so you stop working.*	3	3
72	**cut out – stop working** *as if you did it with scissors, you cut the trajectory you were building while working*	3	18
73	**cut out – stop working** *Its as if you broke the chain of production in a factory*	2	14
74	**cut out – stop working** *when something's energy flow is cut so that it can't come into the thing and it stops working*	1	14
75	**cut out – stop working** *To break something.* *To stop doing something.*	3	12
69	**draw in – become dark earlier as winter approaches**	4	5
70	**draw in – become dark earlier as winter approaches**	3	5
71	**draw in – become dark earlier as winter approaches** *The light is withdrawn earlier.* *The light goes out.*	3	3
72	**draw in – become dark earlier as winter approaches** *as if it were a curtain, darkness draws in lightness.*	3	18
73	**draw in – become dark earlier as winter approaches** *winter is closer, which means its drawing in, coming in.*	2	14

74	**draw in – become dark earlier as winter approaches** *winter pulling night stronger and thus it getting here earlier*	1	14
75	**draw in – become dark earlier as winter approaches** *It's like drawing (making a picture) the day in black.*	3	12
69	**draw out – make somebody feel less nervous or shy**	4	5
70	**draw out – make somebody feel less nervous or shy**	3	5
71	**draw out – make somebody feel less nervous or shy** *To draw the negative feelings out of somebody's head in order to make him/her comfortable*	3	3
72	**draw out – make somebody feel less nervous or shy** *It is to bring someone from shyness to confidence. He was IN shyness and you make him to be OUT of his shyness.*	3	18
73	**draw out – make somebody feel less nervous** *Someone is a very tense situation, and you come in and take him out to catch a breath.*	2	14
74	**draw out – make somebody feel less nervous or shy** *drag someone out of a state of nervousness or reserve*	1	14
75	**draw out – make somebody feel less nervous or shy** *It's like bringing out something. Like making a picture and make it public* *In this case there's a positive mood.*	3	12
69	**draw out – make something last longer** *I will fix it to draw out* *he draw out his speech*	4	5
70	**draw out – make something last longer** *To go out of limits, like drawing out of lines to make something longer.*	3	5
71	**draw out – make something last longer** *To draw out is like to squeeze something to last longer. Like money*	3	3

72	**draw out – make something last longer** *The preposition 'out' stands for this idea of stretching time and draw it out from what was already planned.*	3	18
73	**draw out – make something last longer** *You stretch time somehow and to draw means to take something out.*	2	14
74	**draw out – make something last longer** *to keep taking something out even when it's supposed to be finished*	1	14
75	**draw out – make something last longer** *Like making a statement. To ????? something that is in our mind.*	3	12
69	**go in – be understood**	4	5
70	**go in – be understood**	3	5
71	**go in – be understood** *Like to go in People's mind so they understand you.*	3	3
72	**go in – be understood** *Is when your idea enters the brain of the interlocutor*	3	18
73	**go in – be understood** *Probably, that someone is able to get inside your head and understand.*	2	14
74	**go in – be understood** *go inside the mind so as to be understood*	1	14
75	**go in – be understood** *It's like keep moving (continuous movement).* *In this case there's a positive mood.*	3	12
69	**go in – become hidden** *go in the closet* *come on, nobody will Find you!*	4	5
70	**go in – become hidden** *When something goes into a place and blends with the environment it kind of disappears. Like a frog on a leaf.*	3	5
71	**go in – become hidden** *To go and hide "in" a place.* *"Because I did not want to get hit by a thunder I went in"*	3	3
72	**go in – become hidden** *To 'go' because it is a movement verb and 'in' because in order to be hidden you need to <u>enter</u> somewhere.*	3	18
73	**go in – become hidden** *you stay inside so no one sees you*	2	14
74	**go in – become hidden** *something leaving towards a hiding place*	1	14

75	**go in – become hidden** *To be encourage to work in a specific activity: a research.*	3	12
69	**go out – stop being fashionable** *when we send someone to go out*	4	5
70	**go out – stop being fashionable** *something that is does not fit in some fashion tendency, so it is out of fashion.*	3	5
71	**go out – stop being fashionable** *Is when something goes out of the common use.*	3	3
72	**go out – stop being fashionable** *It means that you are out of that concept <fashion>, you were inside that concept but you have moved to another one*	3	18
73	**go out – stop being fashionable** *Its "out" meaning that its no longer "in", nobody wears it anymore*	2	14
74	**go out – stop being fashionable** *something leaves the fashionable state*	1	14
75	**go out – stop being fashionable** *the word "go" gives the idea of continuous movement, and the word out creates a sense of interruption. So it is an action that stopped at some point*	3	12
69	**go out – stop burning** *go out from one place when is sent away in order to stop bothering*	4	5
70	**go out – stop burning** *If a match is out of air it does not burn.*	3	5
71	**go out – stop burning** *Go out → It is like to finish with something. For example during a fire when it is controlled and the thing stops burning.*	3	3
72	**go out – stop burning** *A fire that takes place is stopped suddenly and without the help of somebody.*	3	18
73	**go out – stop burning** *That the fire is no longer there that is gone. "Go" is what gives me the clue*	2	14
74	**go out – stop burning** *fire or light that is suddenly gone*	1	14
75	**go out – stop burning** *Ask somebody to stop bothering and leave the place where the event or action is taking place.* *Spanish: dejar de molestar*	3	12
69	**pull in – attract people in large numbers** *when we pull attention to an specific*	4	5

70	**pull in – attract people in large numbers** *attraction pulls people towards something.*	3	5
71	**pull in – attract people in large numbers** *To pull people into something/somewhere. Attract them toward something/somebody/somewhere.*	3	3
72	**pull in – attract people in large numbers** *It means that your leadership pulls people to follow you.*	3	18
73	**pull in – attract people in large numbers** *Someone is in the entrance of somewhere and pushes them inside*	2	14
74	**pull in – attract people in large numbers** *to bring people into your thing*	1	14
75	**pull in – attract people in large numbers** *To persuade people to do something or believe in something*	3	12
83	**break in – get somebody accustomed to something new** *I can't relate the meaning and the verb.*	2	10
84	**break in – get somebody accustomed to something new** *When you get somebody to like a new situation.*	1	16
85	**break in – get somebody accustomed to something new** *Loosen a smaller size of cloth.*	2	14
86	**break in – get somebody accustomed to something new** *break somebody's reject, old (mental) structures and make him fit in*	1	9
87	**break in – get somebody accustomed to something new** *To introduce someone into a new thing, whether it is an object or an activity and that person gets used to it*	3	14
88	**break in – get somebody accustomed to something new** *a person's habits are violated. That new thing breaks them and settles inside the person.*	2	11
83	**break in – interrupt a conversation** impolitely breaking in a conversation	2	10
84	**break in – interrupt a conversation**	1	16

	When somebody is talking and you just arrive and start talking about your stuff.		
85	**break in – interrupt a conversation** *Get over obstacles to reach something suddenly*	2	14
86	**break in – interrupt a conversation** *break the continuity of a conversation that had already started*	1	9
87	**break in – interrupt a conversation** *To destroy somebody's conversation by interrupting it.*	3	14
88	**break in – interrupt a conversation** *someone breaks the "established" of a conversation and gets into it.*	2	11
83	**break in – wear something until it is comfortable** *It something is tight you break the fabric so you can wear it*	2	10
84	**break in – wear something until it is comfortable** *I have worn this jeans so many times they finally fit in perfectly*	1	16
85	**break in – wear something until it is comfortable** *A good example would be:* *"The police broke in the thief's hick out", it would be like entering some place by force*	2	14
86	**break in – wear something until it is comfortable** *Could be interpreted as 'make something give in'. What is being broken is the rigid manufactured structure into a comfortable structure*	1	9
87	**break in – wear something until it is comfortable** *When you have to wear something (like shoes) to make them more pleasant to use, like stretch it, or make it bigger for using it.*	3	14
88	**break in – wear something until it is comfortable** *When one breaks something in, one forces that item's shape until it fits. In some way, the original shape is broken.*	2	11
83	**break out – become covered in something, like I sweat or rash** *I can't connect the meaning with the phrasal verb.* *Sorry.*	2	10
84	**break out – become covered in**	1	16

	something, like I sweat or rash *Alicia's acne breaks out without medication*		
85	**break out – become covered in something, like I sweat or rash** *When some kind of virus infects a huge amount of people*	2	14
86	**break out – become covered in something, like I sweat or rash** *sweat escaping from pores*	1	9
87	**break out – become covered in something, like I sweat or rash** *To have some kind of liquid veil over the body*	3	14
88	**break out – become covered in something, like I sweat or rash** *Something that seems to come from nothing breaks through beneath the skin to its surface.*	2	11
83	**break out – begin suddenly** *to begin something abruptly*	2	10
84	**break out – begin suddenly** *When you start to do something out of impulse and out of the blue*	1	16
85	**break out – begin suddenly** *When a dreadful event takes place unexpectedly*	2	14
86	**break out – begin suddenly** *like 'out break' an unpredicted, maybe hazardous, event*	1	9
87	**break out – begin suddenly** *To break is to interrupt without previous advice*	3	14
88	**break out – begin suddenly** *calmness is suddenly interrupted and cast out of "existence" by some activity*	2	11
83	**break out – escape** *breaking the chains*	2	10
84	**break out – escape** *When a prisoner escapes from jail. They break out.*	1	16
85	**break out – escape** *Destroy the bars of a cage and cause trouble*	2	14
86	**break out – escape** *break the order/structure containing someone*	1	9
87	**break out – escape** *I think that you need to break a wall or window to escape*	3	14

88	**break out – escape** someone "breaks" the place where he was imprisoned; then gets out	2	11
83	**call in – make a public request for a product to be returned** Can't think of a definition	2	10
84	**call in – make a public request for a product to be returned** *When you call the company that you bought a product from so you'll be able to return that product*	1	16
85	**call in – make a public request for a product to be returned** Collect some info from the outside	2	14
86	**call in – make a public request for a product to be returned** *call the producers of an out-of-date product to make it again*	1	9
87	**call in – make a public request for a product to be returned** *When you make a call and ask for a product to be returned*	3	14
88	**call in – make a public request for a product to be returned** *a request is placed into the others' hands. The product must be returned, it must go inside again.*	2	11
83	**call in – make a short visit, usually on the way to another place** *Arriving somewhere without saying anything, casually*	2	10
84	**call in – make a short visit, usually on the way to another place** *I decided to call in Robert before he goes to Spain*	1	16
85	**call in – make a short visit, usually on the way to another place** *Drop by someone's place without being asked to beforehand*	2	14
86	**call in – make a short visit, usually on the way to another place** *attention being called briefly by some place*	1	9
87	**call in – make a short visit, usually on the way to another place** *When you are going somewhere, but on the way you visit someone or somewhere else*	3	14
88	**call in – make a short visit, usually on the way to another place** *You call, request, someone but from the*	2	11

	very place they are.		
83	**call in – send for somebody professional and official** *I can't relate the meaning with the phrasal verb.*	2	10
84	**call in – send for somebody professional and official** *When you need professional aid you call somebody with a degree.*	1	16
85	**call in – send for somebody professional and official** *Have the detective called to solve the case*	2	14
86	**call in – send for somebody professional and official** *call for somebody to fill in a professional profile/job*	1	9
87	**call in – send for somebody professional and official** *To ask someone for professional help*	3	14
88	**call in – send for somebody professional and official** *another person is asked to go into the situation.*	2	11
83	**call out – ask somebody to come and help you when there is an emergency** *To call someone from the outside.*	2	10
84	**call out – ask somebody to come and help you when there is an emergency** *When I got lost I call out your name so you would come pick me up.*	1	16
85	**call out – ask somebody to come and help you when there is an emergency** *Get some reinforces to deal with a dangerous situation*	2	14
86	**call out – ask somebody to come and help you when there is an emergency** *Calling from inside a problem to anyone outside of it*	1	9
87	**call out – ask somebody to come and help you when there is an emergency** *To call is to ask someone to get you as fast as possible and out (I think) is aloud or yelling*	3	14
88	**call out – ask somebody to come and help you when there is an emergency** *one call somebody who is out of situation one is into.*	2	11
83	**cut in – interrupt somebody's conversation** As if you were slashing the conversation	2	10
84	**cut in – interrupt somebody's**	1	16

	conversation *When somebody is talking and you just start babbling about your stuff.*		
85	**cut in – interrupt somebody's conversation** *Entering without being asked to*	2	14
86	**cut in – interrupt somebody's conversation** *cut the flow of conversation in half*	1	9
87	**cut in – interrupt somebody's conversation** *To cut is to split and in is inside*	3	14
88	**cut in – interrupt somebody's conversation** *the conversation 's thread is cut by someone's intrusion.*	2	11
83	**cut out – prevent something from reaching somewhere** *you stop something from its course*	2	10
84	**cut out – prevent something from reaching somewhere** *Maru was cut out from the group*	1	16
85	**cut out – prevent something from reaching somewhere** *Detour any kind of flow*	2	14
86	**cut out – prevent something from reaching somewhere** *cutting or interrupting the movement /ability to move*	1	9
87	**cut out – prevent something from reaching somewhere** *To split something into several parts so it can be moved*	3	14
88	**cut out – prevent something from reaching somewhere** *something is interrupted, gets out; and is driven out of its course, preventing it from reaching the original destination.*	2	11
83	**cut out – stop doing something** *Leaving the work your doing abruptly.*	2	10
84 MEX	**cut out – stop doing something** *I'll CUT OUT smoking for a while.* *You stop doing something abruptly.*	1	16
85	**cut out – stop doing something** *Interrupt something you are doing*	2	14
86	**cut out – stop doing something** *cut/interrupt the continuity of an activity*	1	9
87	**cut out – stop doing something** To split the activity your doing so you can do something else in the meantime.	3	14
88	**cut out – stop doing something**	2	11

	the activity is interrupted; out implies the activity is somehow forsaken		
83	**cut out – stop working** *to interrupt the work*	2	10
84	**cut out – stop working** *When you are done working and go on a break*	1	16
85	**cut out – stop working** *Interrupt an activity bluntly*	2	14
86	**cut out – stop working** *cut the course of actions*	1	9
87	**cut out – stop working** *When you stop your work and have a break*	3	14
88	**cut out – stop working** *the activity, working, is interrupted by the worker's will.* *Out means the activity is abandoned*	2	11
83	**draw in – become dark earlier as winter approaches** *The sun hides.*	2	10
84	**draw in – become dark earlier as winter approaches** *When you look for information on a computer. You call up info (?)*	1	16
85	**draw in – become dark earlier as winter approaches** *See the sun go out at 3 pm.*	2	14
86	**draw in – become dark earlier as winter approaches** *sun draws into horizon sooner*	1	9
87	**draw in – become dark earlier as winter approaches** *To paint dark the sky earlier as winter comes closer*	3	14
88	**draw in – become dark earlier as winter approaches** *the day is taken (drown) into darkness.*	2	11
83	**draw out – make somebody feel less nervous or shy** *distract someone*	2	10
84	**draw out – make somebody feel less nervous or shy** *When you make conversation with a shy person so they feel comfortable.*	1	16
85	**draw out – make somebody feel less nervous or shy** *Try to break the ice, finish tension*	2	14
86	**draw out – make somebody feel less nervous or shy**	1	9

	take sb . out of his/her normal shyness		
87	**draw out – make somebody feel less nervous or shy** *To make a drawing of confidence for someone*	3	14
88	**draw out – make somebody feel less nervous or shy** someone drives shyness out of someone else.	2	11
83	**draw out – make something last longer** *For example: taking little sips of coffee.*	2	10
84	**draw out – make something last longer** *somebody stops an action so later it will last longer.*	1	16
85	**draw out – make something last longer** *Use wearily something g till it becomes useless.*	2	14
86	**draw out – make something last longer** *pull/draw the time of something as to stretch some time*	1	9
87	**draw out – make something last longer** *When you need something to be longer in terms of time*	3	14
88	**draw out – make something last longer** *Something lasts longer, as it is drawn out of its limits.*	2	11
83	**go in – be understood** *Stepping inside the information.*	2	10
84	**go in – be understood** *When something sticks in the mind of somebody. It finally went in!*	1	16
85	**go in – be understood** *Enter in a social group or be accepted*	2	14
86	**go in – be understood** *similar to ' take in'*	1	9
87	**go in – be understood** *To put knowledge or instructions, etc., into someone's mind.*	3	14
88	**go in – be understood** *something moves into someone's mind.*	2	11
83	**go in – become hidden** *step inside somewhere so no one can see you*	2	10
84	**go in – become hidden** *Irene decided to go in the cave before the bear saw her*	1	16
85	**go in – become hidden** *Enter some place not to be spotted by someone*	2	14
86	**go in – become hidden** *going into shadows, or a place out of*	1	9

	sight		
87	**go in – become hidden** *When you don't want to be found*	3	14
88	**go in – become hidden** *You get yourself into the scene in order to avoid being noticed, as if you became part of it, you go into the scene.*	2	11
83	**go out – stop being fashionable** *The style is no longer in*	2	10
84	**go out – stop being fashionable** *That shirt is so out.* *My pants are in.* *When you stop using some clothes because the are so last season*	1	16
85	**go out – stop being fashionable** *Something that used to be the usual disappears gradually*	2	14
86	**go out – stop being fashionable** like a shorter form of going out of place/fashion	1	9
87	**go out – stop being fashionable** Go can mean t move or leave and out is to be no more or to last no longer.	3	14
88	**go out – stop being fashionable** something that was stylish is no longer in style. It moves out of it.	2	11
83	**go out – stop burning** *the fire goes out, it no longer exists*	2	10
84	**go out – stop burning** *when somebody makes the flames go out. And stops the fire*	1	16
85	**go out – stop burning** *When something disappears slowly or grows dimmer*	2	14
86	**go out – stop burning** *Certain phrasal verbs, like 'go blind' or 'go figure' use 'go' with a meaning near 'reach a state'. 'Out' is easy to relate with 'off''* *'Put out' and 'run out'* *(of O2 or flammable material)*	1	9
87	**go out – stop burning** *When there is a fire and it stops by natural causes*	3	14
88	**go out – stop burning** *"Go out" is related to running out of fuel. When a fire is out of fuel, it stops burning.*	2	11
83	**pull in – attract people in large numbers** *you call for them as if you were using a*	2	10

	rope		
84	**pull in – attract people in large numbers** *The people were pulled in to the ….. when they knew the Pope was going to be there*	1	16
85	**pull in – attract people in large numbers** *Bring people by their own will with some kind of strategy*	2	14
86	**pull in – attract people in large numbers** *pull a crowd with smooth words or catching their interest*	1	9
87	**pull in – attract people in large numbers** *When someone is very good looking and catches the attention of many people*	3	14
88	**pull in – attract people in large numbers** *people are driven into some event or place.*	2	11
83	**pull in – move to the side of the road to stop** *comes from when you pulled the horses to stop.*	2	10
84	**pull in – move to the side of the road to stop** *When a police car tells you to stop your car you hav to move to one side.*	1	16
85	**pull in – move to the side of the road to stop** *Stop driving because any reason*	2	14
86	**pull in – move to the side of the road to stop** *pull near to the roadside ditch*	1	9
87	**pull in – move to the side of the road to stop** *To pull is to get something inside of sth else but not in a soft or nice way*	3	14
88	**pull in – move to the side of the road to stop** *something is forced to set in one position.*	2	11
83	**pull out – stop being involved in something** stepping out from a project	2	10
84	**pull out – stop being involved in something** *When you say things that will surely make somebody feel bad about themselves.*	1	16
85	**pull out – stop being involved in something**	2	14

	Get free from a trouble you were inside		
86	**pull out – stop being involved in something** *get out/off a group activity*	1	9
87	**pull out – stop being involved in something** *To take yourself out of a problem.*	3	14
88	**pull out – stop being involved in something** *someone's participation is some event is removed by his own. Out means he leaves that event.*	2	11
83	**put in – elect a political party as the government** *to put someone in the government*	2	10

8. Summary in Croatian [Sažetak na hrvatskome jeziku]

8.1. Predistraživanje, ciljevi i hipoteze

Ciljevi i hipoteze ovoga rada temelje se na rezultatima predistraživanja strateškog konstruiranja značenja engleskih fraznih glagola (Geld 2006). Navedeno se predistraživanje temeljilo na dvije osnovne pretpostavke: a) jezik je iskustvena pojavnost i b) neposredno je povezan s ostalim kognitivnim sposobnostima. Nadalje, krenuli smo od pretpostavke da konstruiranje značenja u drugom jeziku, tj. strateško konstruiranje značenja, može služiti kao dokaz povezanosti kognitivnih strategija učenja (Weinstein i Mayer 1986; O'Malley and Chamot 1990; Oxford 1990) u procesu usvajanja drugoga jezika i općih kognitivnih procesa kao vidova konstruiranja značenja u prvome jeziku.
Predistraživanje je uključivalo 120 studenata engleskog jezika (76 Hrvata i 44 Meksikanaca) i cilj mu je bio istražiti prirodu kognitivnih strategija u procesu učenja engleskih fraznih glagola. Rezultati su pokazali sljedeće:

1) Učenici koriste niz kognitivnih strategija koje su preslika općih kognitivnih sposobnosti opisanih u kognitivnolingvističkim radovima. Procesi koji se najčešće aktiviraju u strateškom konstruiranju engleskih fraznih glagola su sljedeći: kategorizacija (Lakoff 1987; Langacker 1987; Taylor 1995), odnos lika i pozadine (Talmy 1972, 2000), strukturna shematizacija (Talmy 2000), konceptualna metafora i metonimija (Lakoff i Johnson 1980; Lakoff 1990, 1993; Kövecses i Radden 1998; Radden i Kövecses 1999; Barcelona 2003; Kövecses 2000, 2002, 2005; Brdar i Brdar-Szabó 2003), predodžbene sheme (Talmy 1988, 2000; Lakoff 1987; Johnson; 1987; Langacker 1993; Hampe 2005) te dinamika sile (Talmy 1988, 2000).[57]
2) Topološko/gramatičko značenjsko određenje ima značajnu ulogu u konstruiranju značenja. Značenjski doprinos prijedloga u fraznim glagolskim konstrukcijama dominira u odnosu na doprinos glagola,

[57] Svi navedeni procesi detaljno su istraženi i oprimjereni u velikom broju kognitivnolingvističkih radova. Sistematski su prikazani kao operacije konstruiranja značenja i primjeri jezične realizacije četiriju općih kognitivnih procesa: a) pažnje/istaknutosti, b) prosudbe/usporedbe, c) perspektive/smještenosti i d) konstitucije/geštalta (vidi Croft i Wood 2000 i Croft i Cruse 2004).

osobito kod fraznih glagola koji se sastoje od značenjski shematskih glagola poput *take* 'uzeti' ili *put* 'staviti'.

Navedeni su rezultati poslužili kao polazišna točka za daljnje istraživanje te nam omogućili postavljanje ciljeva i definiranje hipoteza na kojima se temelji ova disertacija. Glavni je cilj bio istražiti kognitivne procese koji se aktiviraju u procesu konstruiranja značenja u engleskom kao drugom jeziku, odnosno, preciznije govoreći, procese koji čine predvidljive uzorke u konstruiranju značenja engleskih fraznih glagola. Htjeli smo saznati hoće li i kako učenici engleskoga jezika uočiti i naći smisao u fraznim glagolima u kognitivno motiviranom smislu te koliko će se osloniti na topološko/gramatičko određenje vezano uz prijedlog u navedenim fraznim konstrukcijama. Preciznije, zanimalo nas je sljedeće:

- odnos topološkog i leksičkog određenja s obzirom na značenjsku strukturu glagola (značenjski neodređeniji/shematski glagoli i značenjski određeniji glagoli)
- učestalost kompozicijskog značenja s obzirom na značenjsku strukturu glagola
- odnos topološkog i leksičkog određenja s obzirom na opće znanje jezika i duljinu učenja
- učestalost kompozicijskog značenja s obzirom na opće znanje jezika i duljinu učenja
- odnos topološkog i leksičkog određenja s obzirom na prvi jezik (hrvatski i španjolski)
- učestalost kompozicijskog značenja s obzirom na prvi jezik,
- priroda topološkog određenja u strateškom konstruiranju značenja prijedloga *in* i *out*
- priroda topološkog određenja s obzirom na opće znanje jezika.

Postavljene su sljedeće hipoteze:

1) topološko se određenje očekuje kod fraznih glagola koji se sastoje od značenjski neodređenijih glagola

2) leksičko se određenje očekuje kod fraznih glagola koji se sastoje od značenjski određenijih glagola
3) uravnoteženije se određenje (kompozicionalnost) očekuje kod fraznih glagola sa značenjski određenijim glagolom
4) topološko se određenje očekuje kod učenika s višim općim znanjem jezika
5) veća se učestalost kompozicijskih značenja očekuje kod učenika s višim općim znanjem jezika
6) topološko se određenje i veća učestalost kompozicijskih značenja očekuje kod hrvatskih ispitanika
7) leksičko se određenje i manja učestalost kompozicijskih značenja očekuje kod meksičkih ispitanika
8) strateško konstruiranje značenja prijedloga *in* i *out* temelji se na kognitivno motiviranom procesu koji započinje topologijom i završava glagolskim vidom
9) strateško konstruiranje značenja ovisi o općem znanju jezika.

8.2. Instrument

Instrument u istraživanju je bio upitnik s 20 fraznih glagola. Za njihov je izbor korišteno nekoliko kriterija. Osnovni je cilj bio dobiti uravnoteženu jezičnu građu, stoga su kriteriji bili sljedeći: a) frazni glagoli koji se sastoje od značenjski određenijih i neodređenijih glagola, b) približno isti broj značenja u obje grupe glagola i c) sva značenja moraju biti procijenjena metaforičkim/neprovidnim postupkom triangulacije. Izabrani su sljedeći glagoli: *go* 'ići', *take* 'uzimati/uzeti', *put* 'stavljati/staviti', *call* 'zvati/pozvati', *cut* 'sjeći/posjeći', *break* 'lomiti/slomiti', *draw* 'vući/povući', *pull* 'vući/povući', *shut* 'zatvarati/zatvoriti', *write* 'pisati/napisati'. Svi su glagoli morali biti značenjski produktivni s oba prijedloga, odnosno s *in* i s *out*. Nakon što su izabrani glagoli, sastavljen je upitnik sa svim značenjima koja su ponuđena u tri različita rječnika za napredne učenike.[58] Kako bismo dobili metaforička/neprovidna značenja koristili smo jednostavan triangulacijski test (vidi dodatak br. 1) – značenja je procijenilo 5 izvornih govornika, dva lingvista i naposljetku 40 studenata četvrte godine anglistike. Značenja su rangirali na skali od 1 (=doslovno/providno/fizičko značenje) do 5 (=apstraktno/metaforičko/neprovidno

[58] *Oxford Phrasal Verbs, Cambridge Phrasal Verbs* i *Basic Phrasal Verbs*

značenje). Navedenim je postupkom dobiveno 45 značenja koja su korištena u glavnom dijelu istraživanja.

Drugi je korak bio provedba probnog istraživanja kako bi se ustanovila pouzdanost upitnika. Zadaci su posloženi tako da se izbjegne isti glagol ili isti prijedlog jedan za drugim (vidi dodatak br. 2). Upitnik je testiran na 112 studenata prve godine anglistike. Zadatak im je bio pronaći smislenost u zadanim fraznim konstrukcijama. Kvalitativna je analiza pokazala da su rečenice koje su bile sastavni dio zadatka prečesto usmjeravale ispitanike na specifične slike koje opisuju navedene rečenice, a rijetko na promišljanje značenjskog doprinosa elementa samoga fraznog glagola, dakle glagola i prijedloga. Stoga je odlučeno da će u glavnom istraživanju biti korišten novi upitnik koji će ponuditi samo frazne glagole s izoliranim značenjima bez dodatnog konteksta (vidi dodatak br. 3).

8.3. Ispitanici i glavno istraživanje

Uzorak se sastojao od 100 ispitanika. Ispitanici su bili učenici/govornici engleskog kao drugog jezika: 68 studenata anglistike s Filozofskog fakulteta u Zagrebu i 32 studenta s Filozofskog fakulteta Nacionalnog autonomnog sveučilišta u Mexico Cityu (Facultad de Filosofía y Letras, Universidad Nacional Autónoma de Mexico – UNAM). Ispitanici su testirani odvojeno, u malim grupama te u dvije sesije s tjedan dana razmaka.

Osnovni nam je cilj vezan uz ispitanike bio imati dvije skupine učenika engleskog jezika sa sličnim jezičnim obrazovanjem, ali različitim prvim jezikom. Ono što nismo očekivali jest činjenica da na UNAM-u ima gotovo tri puta manje studenata anglistike negoli na Sveučilištu u Zagrebu. Nadalje studijska godina u Meksiku ne garantira i određeni stupanj jezičnoga znanja, kao što je to, barem donekle, u Hrvatskoj. Stoga je odlučeno da ćemo u Hrvatskoj raditi sa studentima treće i četvrte godine, a u Meksiku s grupom studenata koji pohađaju zadnji stupanj jezičnih vježbi.

Prvi je korak u završnoj fazi istraživanja bio testirati jezično znanje. Nakon navedenog testiranja slijedile su dvije sesije vezane uz ispunjavanje glavnog upitnika s fraznim glagolima. Po završetku cijelog testiranja ispitanici su dali sljedeće podatke: ime, dob, duljinu učenja i studijsku godinu. Svi jezični testovi i upitnici su numerirani tako da broj označuje određenog ispitanika i prvi jezik (brojevi 1-68 se odnose na Hrvate, a brojevi 69-100 na Meksikance). Kako bi se provela i kvantitativna i kvalitativna analiza, svi su

odgovori iz upitnika prepisani, odnosno uneseni u računalo, grupirani prema značenju glagola te poredani abecednim redom (vidi dodatke 4 i 5).

8.4. Građa, preliminarna analiza i kodiranje

Nakon što je grupirano i poredano abecednim redom, svih 4.198 odgovora je kodirano. Nekoliko se osnovnih ideja o kategorijama odgovora iskristaliziralo već tijekom njihova grupiranja, ali je trebalo nekoliko detaljnih, analitičkih čitanja kako bi se odredile sve kategorije te svakom pojedinačnom odgovoru pridružio jedan od sljedećih kodova:

- **TOP** za topološko/gramatičko određenje (za odgovore kod kojih prevladava značenje prijedloga)
- **LX** za leksičko određenje (za odgovore kod kojih prevladava značenje glagola)
- **CMP** za kompozicijsko značenje
- **PPH** za parafrazu
- **OPP** za osnovnu značenjsku opoziciju (npr. *go in* 'ući' se objašnjava kroz njegovu značenjsku opoziciju u odnosu na *go out* 'izaći', tj. *in* se objašnjava u odnosu na *out*
- **MIS** za nesmisleni odgovor koji ni po čemu ne upućuje na značenje koje se objašnjava
- **CTX** za odgovore koji uključuju opis konteksta, ali bez uporabe samog glagola
- **LXD** za odgovore u kojima se frazni glagol objašnjava latiniziranom istoznačnicom/bliskoznačnicom, dakle glagolom bez prijedloga.

Primjeri odgovora koji slijede se odnose na tri kategorije značajne za značenjska određenja kojima se bavi ovaj rad:

1) Topološko određenje: *break out* ('postati prekriven nečim poput znoja ili osipa') – "nešto izlazi iz tebe i ne možeš to kontrolirati, vani je i ne možeš to vratiti svojom voljom"); *put out* ('uspavati ili onesvijestiti') – "staviti nekoga ili nešto izvan uobičajenog mjesta/prostora i onemogućiti njegovu uobičajenu funkciju"; *put in* ('izabrati političku stranku za vladu') – "vlada je mjesto u koje stavljamo izabranu stranku da nešto učini".

2) Leksičko određenje: *break out* ('postati prekriven nečim poput znoja ili osipa') – "lomljenje je nasilno i ako je nešto pod pritiskom, slomit će se i to će se odigrati brzo i iznenada; nešto je potisnuto i onda dolazi do loma i otpuštanja"; *draw out* ('produljiti') – "*draw* znači da je radnja produljena, znači rastegnuti, produžiti"; *break in* ('nositi obuću/odjeću dok ne postane ugodna') – "kad je nešto novo obično je cijelo pa se treba malo slomiti da postane ugodno".
3) Kompozicijsko značenje: *break out* ('postati prekriven nečim poput znoja ili osipa') – "*out* – nešto dospije van na otvoreno, postaje vidljivo svakome, *break* – iznenadni i neočekivani čin; *put out* ('uzrokovati nevolju, probleme ili dodatni posao') - "*put* – tjera me na pomisao da netko nekome nameće dodatni posao, *out* – označava ono što je izvan nečije uobičajene rutine, izvan normalnog"; *break in* ('nositi obuću/odjeću dok ne postane ugodna) – "imaš li novu majicu, moraš sebe staviti u nju kako bi je nosio, a lomljenje se odnosi na rastezanje".

Nakon što je svih 4.198 odgovora kodirano s jednim od osam gore opisanih kodova, svi odgovori koji su označeni kao topološki ili kompozicijski su iznova analizirani kako bi ih se dalje kategoriziralo s obzirom na strateško konstruiranje značenja prijedloga.
Nakon prve analize došli smo do 14 kategorija za *out,* ali su se određene kategorije stopile nakon što je građa statistički obrađena i iznova analizirana. Konačne operativne kategorije su sljedeće (PC+broj je skraćenica koja označuje kôd, tj. određenu kategoriju):

- PC1 – procesualna topologija (konkretna/fizička). *Out*[59] znači: izlaženje iz ili napuštanje zatvorenog prostora; izlaženje iz bilo čega što nas okružuje ili sputava; izlaženje iz ili napuštanje spremnika (npr. ljudskog tijela, kuće, zgrade, ladice, itd.)

- PC3 – statična topologija (konkretna/fizička) – *out* se odnosi na ono što je izvan našeg dosega ili izvan uobičajenog mjesta. *Out* znači: izvan prostora

[59] Opisi prijedloga koji se navode iza dvotočke izravno se temelje na odgovorima ispitanika i nisu jednostavna poopćavanja, već reprezentativni dijelovi njihovih odgovora.

gdje se nalazimo; izvan našeg osobnog svijeta; izvan našeg dosega; izvan normalnog položaja; izvan vlastitih granica; dislociranost

- PC2 – apstraktna topologija (statična izmještenost/promjena stanja). *Out* znači: izvan prethodnog stanja; izvan prethodne aktivnosti; izvan prvotnog ili normalnog stanja; izvan rutine; izvan uobičajenog; izvan reda; izvan onoga što je očekivano ili točno

- PC4 – *out* znači: izbivanje; neprisutnost; izolaciju; nešto što se ne može vidjeti; nešto skriveno

- PC5 – procesualna topologija bez izravnog spominjanja spremnika. *Out* znači: nestajati; nestajanje; odlaženje

- PC7 – glagolski vid (završetak radnje). *Out* znači: nešto što je završilo; kraj; u potpunosti; potpuno zaustavljanje; završetak; nešto u potpunosti

- PC9 – statična topologija (konkretna i apstraktna) s fokusom na prostor izvan našeg izravnog dosega. *Out* znači: vani; vani gdje su drugi ljudi; vidljivo; neskriveno; vani na otvorenom; vani na većem prostoru

- PC12 – konceptualna metafora. *Out* znači: slobodu; nepripadanje; nešto odbačeno; neprihvatljivo; negativno

- PC13 – glagolski vid (početak radnje). *Out* znači: početak radnje; aktivnost koja počinje; stvari koje počinju svoju aktivnost ili bivanje

- PC14 – *out* uključuje svojevrsnu dvosmjernu konceptualizaciju prostora (ili promjenu fokusa). Npr. značenje prijedloga *out* u *take out* 'ubiti/umoriti' je objašnjeno na dva načina: a) osoba je uzeta/oteta iz života (život se vidi kao spremnik) ili b) život je uzet/otet osobi, tj. doslovno, život je uzet iz osobe (osoba/ljudsko tijelo se vidi kao spremnik).

Značenjske kategorije za *in* su sljedeće:

- PC1 – procesualna topologija (konkretna/fizička). *In* znači: ulaženje u novi prostor ili mjesto; ulaženje u spremnik; ulaženje u određeno područje; ulaženje u specifični dio prostora

- PC3 – statična topologija (konkretna/fizička) – nema kretanja, važan je samo fizički prostor i lokacija. *In* znači: mjesto; lokacija; prostor; ograničeni prostor; skučeni prostor; mjesto u kojem se može sakriti

- PC2 – glagolski vid (početak radnje). *In* znači: biti u novoj aktivnosti ili ući u novu aktivnost ili novu situaciju; biti u novoj grupi ljudi ili ući u novu grupu ljudi; početak nečega novog; početak uključivanja u nešto novo

- PC4 – statična topologija – fokus na prostor unutar dosega subjekta radnje (egocentrično promatranje). *In* znači: prostor unutar kojeg je smješten subjekt, svijet i prostor unutar dosega subjekta, tj. njegove/njezine kontrole/dosega/utjecaja

- PC5 – procesualna topologija (konkretna/fizička) bez izravnog spominjanja spremnika. *In* znači: ulaženje; uskakanje; kretanje prema unutra; vraćanje

- PC6 – *in* znači: unutar; unutar nečega (nije osobito informativan, tj. značenjski doprinosan)

- PC8 – *in* pojačava intenzitet radnje

- PC11 – *in* uključuje obrnuto ili neegocentrično promatranje scene

- PC12 – konceptualna metafora. *In* znači: prihvatljivo; prihvaćanje.

Zadnji korak u dobivanju prvih kvantitativnih rezultata je bio unos podataka u statistički program. Korišten je program SPSS, a uneseni su sljedeći podaci: redni broj ispitanika, studijska godina, broj godina učenja engleskog jezika, rezultat na testu jezičnog znanja, svih 4.198 odgovora i svi prateći kodovi. Podaci su uneseni na takav način da se njihovom obradom mogu dobiti raznovrsni statistički pokazatelji relevantni za postavljene hipoteze.

8.5. Rezultati

Prvi dio rezultata odnosi se na značenjsko određenje frazne konstrukcije. S obzirom na polazne pretpostavke, ciljeve i hipoteze, rezultati upućuju na sljedeće:

1) Značenjsko određenje fraznih glagola ovisi o prirodi njihovih sastavnica. Kod fraznih glagola s prijedložnim sastavnicama *in* i *out*, topološko je određenje statistički značajno učestalije kod fraznih glagola čija je sastavnica značenjski neodređeniji glagol. Nasuprot tome, govornici

engleskog kao drugog jezika se češće oslanjaju na glagole negoli na prijedloge u procesu konstruiranja značenja fraznih glagola kojima su sastavnica značenjski određeniji glagoli. Naposljetku kompozicijska su značenja učestalija kod značenjski određenijih glagola. Drugim riječima, rezultati pokazuju da značenjska određenost glagola kao sastavnica u fraznim glagolima ima značajnu ulogu u procesu konstruiranja značenja u engleskom kao drugom jeziku. Nadalje čini se da su sveprisutnost i višeznačnost prijedloga odgovorne za središnji značaj koji prijedlozi imaju kod strateškog konstruiranja značenja fraznih konstrukcija sa značenjski neodređenijim glagolima. Dakle može se zaključit da značenjski kontinuum kod strateškog konstruiranja značenja fraznih glagola počinje leksičkim, a završava topološkim određenjem. Između te dvije krajnosti se nalazi niz kompozicijskih značenja, a priroda navedene kompozicije je stupnjevita i djelomična.

2) U svim fraznim konstrukcijama s *out*, bez obzira na stupanj određenosti glagola, kompozicijska su značenja učestalija kod ispitanika s višom razinom jezičnoga znanja. S druge strane, topološko određenje ne korelira s razinom jezičnoga znanja. Kod fraznih konstrukcija s *in*, topološko određenje i kompozicionalnost koreliraju s razinom jezičnoga znanja kod značenjski neodređenijih glagola, dok kod značenjski određenijih glagola nisu utvrđene statistički značajne korelacije između jezičnoga znanja i značenjskog određenja. Razlike se u strateškom konstruiranju značenja između fraznih glagolskih konstrukcija s *in* i *out* djelomice pripisuju činjenici da je tijekom istraživanja *out* utvrđen kao značenjski izrazito doprinosan u odnosu na *in.* Stoga kod prijedloga *in*, odgovori ispitanika koji upućuju na topološko određenje ovise o razini jezičnoga znanja, tj. samo ispitanici s najvišom razinom znanja pronalaze smislenu jezičnu motivaciju u značenjskom doprinosu prijedloga.
3) Bez obzira na vrstu glagola, u fraznim je konstrukcijama s *out* kompozicionalnost statistički značajno učestalija kod hrvatskih ispitanika negoli kod Meksikanaca. Nadalje leksičko je određenje statistički manje

učestalo kod Hrvata samo kod značenjski određenijih glagola s *out*, dok kod značenjski neodređenijih glagola nije utvrđena značajna razlika. Razlog tome se pripisuje sljedećim čimbenicima: a) prijedlog *in* se pokazao manje značenjski doprinosan negoli prijedlog *out* (navedena je karakteristika utvrđena u kvalitativnoj analizi strateškog konstruiranja značenja prijedloga u slučajevima topološkog određenja i kompozicionalnosti - vidi drugi dio rezultata u daljnjem tekstu) te b) značenjska shematičnost neodređenijih glagola češće uvjetuje konstruiranje značenja koje uključuje kompozicionalnost. Stoga bez obzira na jezičnu strukturu prvoga jezika koja uključuje elemente koji bi poticali kompozicionalno konstruiranje značenja, kao što su hrvatski prefiksi[60] koji su usporedivi s engleskim prijedlozima u fraznim glagolima, značenjska neprozirnost/neodređenost glagola i relativno nizak značenjski doprinos prijedloga *in* čine navedene frazne konstrukcije jednako složenim i nesmislenim za obje grupe ispitanika. No kod fraznih konstrukcija sa značenjski određenijim glagolom i prijedlogom *out*, kompozicionalnost se pokazala značajno manje učestalom kod Hvata negoli kod Meksikanaca.

4) Usporedivši podatke koji uključuju *out*, a kojima je cilj bio ispitati razlike između fraznih konstrukcija sa značenjski određenim i neodređenim glagolima u cijelom uzorku, s podacima koji se odnose na različite prve jezike (hrvatski i španjolski), došli smo do zaključka da je kompozicionalnost dosljedno važan vid strateškog konstruiranja značenja. U cijelom je uzorku kompozicionalost predvidljiv uzorak konstruiranja značenja kod fraznih konstrukcija s određenijim glagolima. U hrvatskom je dijelu uzorka, za razliku od meksičkog, kompozicionalnost učestalija kod oba tipa fraznih konstrukcija. Nadalje u cijelom je uzorku leksičko određenje statistički značajno učestalije kod fraznih konstrukcija s određenijim glagolima. No kad se usporede dvije grupe ispitanika s različitim prvim jezikom, podaci pokazuju da je leksičko određenje

[60] Iako kognitivnosemantički hrvatski nije prototipičan satelitski jezik, u hrvatskom su prisutne obje strategije izražavanja temeljne sheme opisa događaja: leksička (*Ušao je u kuću teturajući*) i satelitska (*Uteturao je u kuću*).

učestalije kod Meksikanaca. Općenito, hrvatski su ispitanici pokazali da mnogo češće uzimaju u obzir obje sastavnice fraznih glagola u procesu konstruiranja značenja te da se mnogo rjeđe oslanjaju isključivo na leksički dio konstrukcije. Držimo da je središnji čimbenik koji utječe na ovakvu tendenciju u strateškom konstruiranju značenja činjenica da su u hrvatskome jeziku prisutne obje strategije u izražavanju temeljne sheme opisa događaja – leksička i satelitska. Drugim riječima, prisutnost satelita u obliku glagolskih prefiksa u hrvatskome jeziku olakšava prepoznavanje uloge prijedloga u fraznim konstrukcijama u engleskome jeziku. Nasuprot tome, u španjolskom nema navedene prefiksalne tvorbe te ne iznenađuje da se Meksikanci u konstruiranju značenja u engleskom jeziku mnogo češće oslanjaju na glagol, a prijedlog zanemaruju.

5) Preispitavši ulogu razine znanja jezika uspoređujući Hrvate i Meksikance s najvišom razinom znanja, a zatim Hrvate i Meksikance s najnižom razinom znanja, utvrdili smo da Hrvati dosljedno pokazuju rezultate koji su dobiveni za grupu s visokom razinom jezičnoga znanja u cijelom uzorku. No budući da nije utvrđena statistički značajna razlika u razini jezičnoga znanja između Meksikanaca i Hrvata, odlučili smo preispitati ostale čimbenike koji su mogli utjecati na razlike u konstruiranju značenja. Kod Meksikanaca je uočeno relativno visoko standardno raspršenje kod godina učenja engleskoga jezika te statistički značajna razlika u studijskoj godini na kojoj su bili u doba provođenja istraživanja. Za razliku od Meksikanaca, Hrvati su činili prilično ujednačeni uzorak s obzirom na studijsku godinu, godine učenja, te dob u kojoj su počeli učiti drugi jezik i starosnu dob. Stoga je naša pretpostavka da, iako nije utvrđena statistički značajna razlika u razini jezičnoga znanja, hrvatski ispitanici vjerojatno imaju sustavnije znanje, te bolje razvijene strategije učenja i metakogniciju.
6) S obzirom na dobivene rezultate i utvrđene razlike, predlažemo dvije grupe čimbenika koji utječu na proces konstruiranja značenja fraznih glagola u engleskome kao drugom jeziku:

a) unutarjezične čimbenike koji se odnose na drugi jezik (uloga značenjski određenijih i neodređenijih glagola te razina značenjskog doprinosa prijedloga) i unutarjezične čimbenike koji se odnose na prvi i drugi jezik (uloga strategija koje pojedini jezik ima u izražavanju temeljne sheme opisa događaja)
b) izvanjezične čimbenike (razina jezičnoga znanja, godine učenja, te različiti elementi obrazovne okoline koji mogu utjecati na razvoj strategija učenja, npr. učenje u ranoj dobi te sustavno i neprekidno učenje).

Drugi dio rezultata odnosi se na strateško konstruiranje značenja samih prijedloga. Dobiveni rezultati pokazuju sljedeće:

7) Strateško konstruiranje značenja prijedloga *out* uključuje sljedeća značenja: procesualnu topologiju (konkretnu/fizičku); statičnu topologiju (konkretnu/fizičku); apstraktnu topologiju (statičnu izmještenost/promjenu stanja); nevidljivost i nedostupnost; procesualnu topologiju bez izravnog spominjanja spremnika; statičnu topologiju (konkretnu i apstraktnu) s fokusom na prostor izvan našeg izravnog dosega; glagolski vid (završetak radnje); glagolski vid (početak radnje); konceptualnu metaforu; nekoliko vidova obrnutog promatranje scene, tj. svojevrsne obrnute topološke konceptualizacije. Strateško konstruiranje značenja prijedloga *in* uključuje sljedeća značenja: procesualnu topologiju (konkretnu/fizičku); statičnu topologiju (konkretnu/fizičku); glagolski vid (početak radnje); statičnu topologiju (fokus na prostor unutar dosega subjekta radnje – egocentrično promatranje scene); proces (konkretan/fizički, ali bez izravnog spominjanja spremnika); konceptualnu metaforu; obrnutu topološku konceptualizaciju; 'unutar'; 'unutar nečega' (nije osobito informativan, tj. značenjski doprinosan); *in* koji samo pojačava intenzitet radnje. Kao što je i predviđeno, odgovori ispitanika se mogu poistovjetiti s fazama koje sliče procesu gramatikalizacije, odnosno, preciznije govoreći, određeni vidovi strateškog konstruiranja značenja upućuju na moguće točke na stupnjevitom putu gramatikalizacije prijedloga *in* i *out* s polazišnim

značenjem koje je topološko, fizičko i konkretno te ciljnim značenjem koje je krajnje apstraktno i shematsko, a označava glagolski vid.

8) Naši ispitanici, govornici i učenici engleskog kao drugog jezika, svjesni su simboličke prirode jezika, a svojim su odgovorima dokazali da smislenost pronalaze jednako u gramatici kao i u rječniku, tj. da rječnik i gramatika uistinu tvore kontinuum. Kognitivnolingvistička pretpostavka da jezik nije samostalna kognitivna sposobnost, već je u uskom međuodnosu s ostalim kognitivnim sposobnostima i domenama znanja, nalazi dokaz upravo u prirodi kognitivnih strategija (učenja) koje su rabili naš ispitanici u procesu strateškog konstruiranja značenja. Dakle drugim riječima, strateško konstruiranje značenja, odnosno konstruiranje značenja u drugom jeziku, usporedivo je s konstruiranjem značenja u prvom jeziku. U našem je istraživanju navedena usporedivost osobito prisutna u strateškom konstruiranju značenja prijedloga *in* i *out*. Govornici engleskog kao drugog jezika prepoznaju složenost njihovih značenjskih mreža, a njihovo je tumačenje istih u velikoj mjeri usporedivo s lingvističkim opisom navedenih prijedloga u prvome jeziku. Odgovori upućuju na dinamičnu prirodu različitih elemenata u procesu konstruiranja značenja te na značaj općih kognitivnih sposobnosti/procesa kao što su pažnja i perspektiva (npr. odgovori uključuju stupnjevitost od doslovnog do metaforičkog, različite vidove promatranja prizora i njegovo umno praćenje). Drugim riječima, kognitivne strategije korištene u strateškom konstruiranju značenja preslika su općih kognitivnih procesa opisanih kao vidova konstruiranja značenja u prvome jeziku. Iako je realizacija navedenih općih procesa jezično specifična, a jezici imaju različiti materijal i oruđe za izgradnju konceptualne strukture, činjenica da su kognitivni procesi u uskom međuodnosu s jezikom, omogućava govornicima drugog jezika aktivaciju navedenih procesa u strateškom konstruiranju značenja. Rezultati ukazuju kako njihova sposobnost da krenu od doslovnog i konkretnog i završe na apstraktnom i metaforičkom, rezultira nizom strateški konstruiranih značenja koji čine stupnjevitu skalu koja sliči

procesu gramatikalizacije engleskih prijedloga. Primjerice njihovi odgovori za *out* u grupi značenja koja smo kategorizirali kao glagolski vid (završetak radnje) govore u prilog pretpostavci da govornici drugog jezika promišljaju jezik na kognitivno motivirani način, da su prešutno svjesni činjenice kako rječnik i gramatika čine kontinuum te da njihovo konstruiranje značenja uključuje procese poput pažnje, usporedbe perspektive, tj. operacije konstruiranja značenja poput odabira, skalarnog podešavanja, metafore, točke promatranja prizora, itd. Navedena uloga operacija konstruiranja značenja vidljiva je primjerice u sljedećem procesu strateške gramatikalizacije: *out* znači 'napuštanje zatvorenog prostora (procesualna topologija) > *out* znači 'napuštanje i nestajanje' (procesualna topologija bez izravnog spominjanja spremnika) > *out* znači 'izvan našeg dosega' (konkretna statična topologija) > *out* znači 'izvan prijašnjeg stanja ili aktivnosti' (apstraktna topologija – statična izmještenost) > *out* znači 'izbivanje i nedostupnost' > *out* označava 'završetak'. Još jedan primjer važnosti pažnje i njene dinamičnosti vezan je uz umno praćenje prizora. Primjerice iako je konceptualno (umno) praćenje elemenata unutar prizora sastavni dio i statičnih i dinamičnih predodžbenih shema, pažnja naših ispitanika je bila prilično selektivna te je njeno težište više bilo na stanjima koja su rezultat procesa negoli na samim procesima. Konačno, elementi promatranja prizora koji se odnose na opću kognitivnu sposobnost perspektive jasno su vidljivi u vidovima konstruiranja značenja koji uključuju važnost konceptualizatora, tj. prostora unutar ili izvan njegova/njezina dosega (vidi značenja kodirana PC3 i PC9 za *out*, te PC4 za *in*).

9) Način na koji su ispitanici konstruirali određena značenja govori u prilog ideji da govornici engleskoga jezika imaju različite točke ulaza u određene leksičke kategorije. Čini se da, bez obzira radi li se o engleskom kao prvom ili drugom jeziku, gdje i kako govornici počinju s usvajanjem određenih značenja ovisi o različitim čimbenicima koji se odnose na njihovo iskustvo i znanje (npr. posao kojim se bave, hobiji, mjesto

življenja, itd.). Primjerice ima ispitanika koji konkretna značenja konstruiraju na apstraktan način. Značenje prijedloga *out* u fraznom glagolu *put out* 'ozlijediti leđa, rame ili kuk' obično se konstruira kao konkretno i topološko ako je u pitanju govornik koji zna što se događa kada dođe do takve ozljede – kost izlazi iz normalne, uobičajene pozicije. Međutim navedeno se značenje može konstruirati i apstraktnije, kao što je slučaj kod značenja 'izvan normalnog stanja', ako je riječ o govorniku koji nikada nije izravno iskusio, vidio ili razmišljao o takvoj ozljedi. Naravno, kod govornika engleskoga kao drugog jezika točka ulaza u određenu leksičku kategoriju ovisi uvelike i o razini jezičnoga znanja navedenog jezika. Ako ponovo razmotrimomo gore navedeni proces strateške gramatikalizacije, vidjet ćemo da je krajnje apstraktno značenje koje označava glagolski vid poistovjećeno s nizom manje apstraktnih značenja. Kada smo statistički korelirali navedena strateški konstruirana značenja s razinom jezičnoga znanja, utvrđeno je da u grupi glagola kod kojih prijedlog kodira glagolski vid, točnije završetak radnje, ispitanici s višom razinom znanja značajno češće poistovjećuju glagolski vid s izrazito shematskim značenjima kao što su 'izbivanje' i 'nedostupnost' (PC4) te s konceptualnim metaforama, većinom "negativnim", kod kojih *out* znači 'nepripadanje grupi', 'odbačeno' i 'negativno' (za pretpostaviti je da je ispitanicima niže razine jezičnoga znanja teže doći do navedenih metafora zbog njihove značenjske obilježenosti kodirane negacijom). Tendencija da su ispitanici više razine znanja bolji u smislenom konstruiranju apstraktnih značenja vidljiva je i kod grupe značenja fraznih glagola koju smo prethodno kategorizirali kao apstraktnu procesualnu topologiju (G4). Apstraktna je topologija strateški konstruirana na sljedeće načine: a) poistovjećivanjem apstraktnog s konkretnim/fizičkim (PC1), b) usmjeravanjem pažnje na različite elemente promatranja prizora (PC3 i PC9) i c) poistovjećivanjem već apstraktnog značenja s krajnje shematskim značenjem (PC4). Dakle mogli bismo reći da je značenjska složenost lingvističkih kategorija kao što su prijedlozi, izazov i za

govornike/studente engleskoga jezika na akademskoj razini učenja. Korelirali smo strateško konstruiranje značenja s razinom jezičnoga znanja i utvrdili značajne razlike. No predviđanje mjesta i načina njihova ulaska u leksičku kategoriju u procesu usvajanja jezika, ako je uopće moguće, iziskivalo bi istraživanje koje uključuje niz relevantnih varijabli i uzima u obzir razne čimbenike i elemente usvajanja jezika. Međutim nedvojbeno možemo zaključiti da strateško konstruiranje značenja ukazuje na činjenicu da je najbolji način bavljenja složenim leksičkim kategorijama izbjegavanje strogog kategoriziranja određenih značenja, pri kojem je njihov nastanak i mjesto unutar kategorije u potpunosti predvidljivo.

10) Dakle strateško konstruiranje značenja varira s obzirom na razinu jezičnoga znanja. Kod *out*, ispitanici s nižom razinom znanja značajno se manje usredotočuju na prostor izvan dosega subjekta radnje. Nadalje znatno rjeđe opisuju konkretan proces usporedbom ili poistovjećivanjem s apstraktnijim procesima. Govornici s višom razinom znanja se općenito bolje snalaze s apstraktnim značenjima. Primjerice značajno češće poistovjećuju glagolski vid sa značenjem 'izbivanja' tj. 'nedostupnosti' ili 'nevidljivosti'. Kod prijedloga *in*, situacija je pomalo drugačija. Govornici s višom razinom znanja koriste strategije koje uključuju svojevrsnu "igru na sigurno". Konstruiraju značenja usmjeravajući pažnju ponajviše na središnja, prototipična značenja. Navedena je tendencija sukladna s ranije navedenim zaključkom da je *in* manje značenjski doprinosan od *out*. Stoga elementi vezani uz konstruiranje značenja prijedloga *in* ili ne ukazuju na razlike prema razini jezičnoga znanja ili izdvajaju ispitanike više razine znanja kao one koji su u stanju usredotočiti se na značenja koja su "osnovna" ili "središnja", bez da ih uzimaju zdravo za gotovo.

11) Ako se govori o utvrđivanju tendencija i/ili uzoraka u razumijevanju finih i mnogostrukih značenja, posebice pri unakrsnom povezivanju raznolikih čimbenika koji utječu na usvajanje jezika i konstruiranje značenja, ne smijemo upasti u zamku poopćavanja ne postoje li najmanje dva leksema koja su usporediva i podložna (pre)ispitivanju. U našem se slučaju

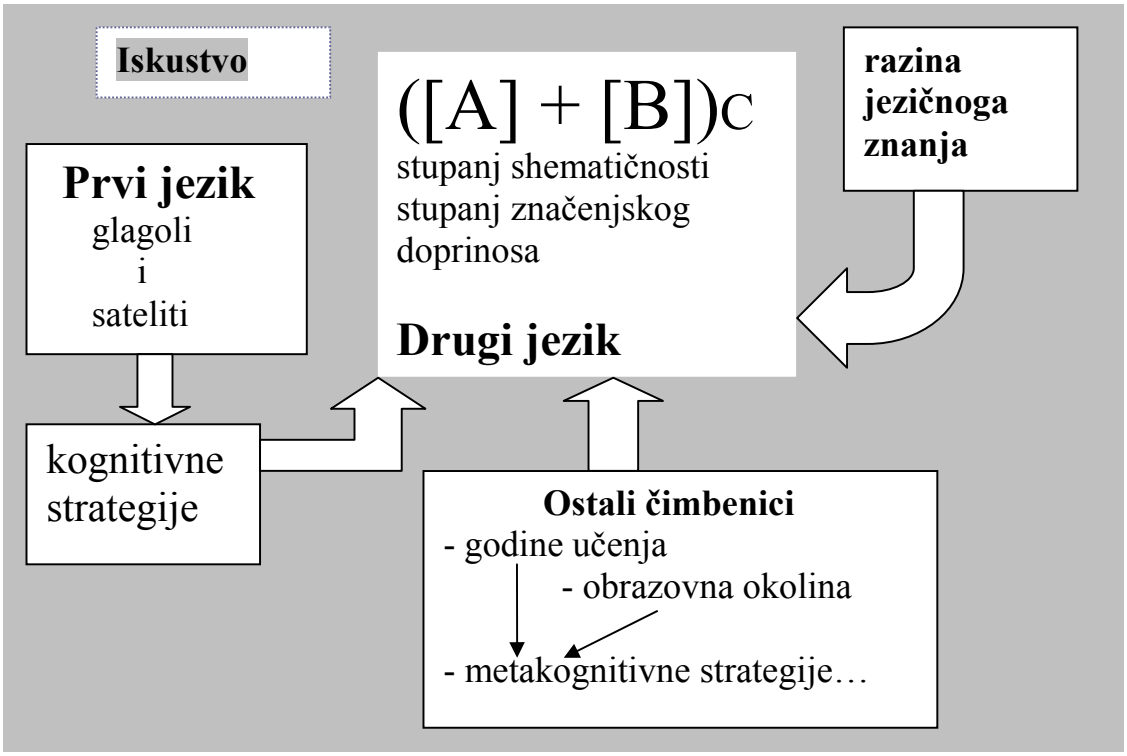
pokazalo da dva leksema bliske prirode i ponašanja zapravo pokazuju značajne razlike kod određenih vidova konstruiranja značenja u drugome jeziku.

8.6. Teoretske i praktične implikacije

Središnja teoretska implikacija ovoga rada vezana je uz međuovisnost empirijski utemeljene teorije usvajanja drugoga jezika i teoretskog, ali detaljnog i pronicljivo pisanog kognitivnolingvističkog opisa jezika. Uzevši u obzir konstruktivističku prirodu suvremenih teorija usvajanja jezika i temeljne kognitivnolingvističke postavke, veza između prvog i drugog jezika predstavlja nezamjenjiv izvor novih hipoteza kao i dvosmjernu provjeru relevantnih otkrića u prvom i drugom jeziku. Drugim riječima, strateško konstruiranje značenja potvrđuje i proširuje analize, opise i zaključke vezane uz prvi jezik, a vidovi konstruiranja značenja opisani za prvi jezik olakšavaju razumijevanje procesa koji su prisutni pri konstruiranju značenja u drugom jeziku. U ovome je radu navedena međuovisnost razvidna u čimbenicima za koje je utvrđeno da utječu na prirodu konstruiranja značenja. Kao što je već ranije rečeno, dvije su grupe čimbenika koje utječu na strateško konstruiranje značenja engleskih fraznih glagola:

a. unutarjezični čimbenici koji se odnose na drugi jezik (uloga značenjski određenijih i neodređenijih glagola te razina značenjskog doprinosa prijedloga) i unutarjezični čimbenici koji se odnose na prvi i drugi jezik (uloga strategija koje pojedini jezik ima u izražavanju temeljne sheme opisa događaja)
b. izvanjezični čimbenici (razina jezičnoga znanja, godine učenja, te različiti elementi obrazovne okoline koji mogu utjecati na razvoj strategija učenja, npr. učenje u ranoj dobi, te sustavno i neprekidno učenje).

Model koji slijedi prikazuje čimbenike koji su razmatrani u ovome radu.



Slika 33. Čimbenici koji utječu na strateško konstruiranje značenja fraznih glagola

U sredini se modela nalazi kognitivnogramatička formula koja predstavlja sastavnice kompozicijske cjeline (cf. Langacker 2000a: 94). Prema Langackeru, kompozicijska se struktura (C) ne smije shvatiti kao jednostavan spoj sastavnica [A] i [B] ili kao kompozicija u kojoj su sastavnice nepromijenjene u navedenoj cjelini.

U našem slučaju, formula predstavlja frazni glagol, a dvije su karakteristike sastavnica izdvojene kao ključne za ovo istraživanje: a) stupanj shematičnosti i b) stupanj značenjskog doprinosa. Međutim pored karakteristika vezanih uz prirodu sastavnica, na strateško konstruiranje značenja kompozicije utječe i prvi jezik, odnosno kognitivne strategije koje se koriste u procesu izgradnje značenja u uskoj su vezi s jezičnim strukturama koje su govornici usvojili i koje koriste u prvom jeziku. Metaforički rečeno, značenjski uzrokovana bitka između prijedloga i glagola ovisi o tome koje strukture su prisutne u prvome jeziku. Tako su se npr. govornici španjolskoga jezika skloniji osloniti na glagol negoli na prijedlog. Nadalje odnos između sastavničkih struktura ovisi i o razini jezičnoga znanja. Primjerice neovisno o stupnju shematičnosti glagola, govornici s višom razinom jezičnoga znanja češće konstruiraju značenje uzimajući u obzir obje

kompozicijske sastavnice. No navedena je tendencija ipak statistički značajna samo kod prijedloga *out*. U slučaju prijedloga *in*, topološko određenje i kompozicionalnost koreliraju s razinom znanja samo kad je sastavnica značenjski neodređeniji glagol. Kod kompozicijskih cjelina sa značenjski određenijim glagolom takve korelacije nisu utvrđene. Navedene se razlike između kompozicijskih cjelina s *in* i *out* pripisuju činjenici da je za govornike drugog jezika *out* značenjski doprinosniji od *in*. Naposljetku budući da nisu utvrđene statistički značajne razlike između razine jezičnoga znanja Meksikanaca i Hrvata, razlike u njihovu konstruiranju značenja su uvelike pripisane ranije opisanim tipološkim razlikama u prvome jeziku. No proučivši detaljnije podatke vezane uz njihovo jezično obrazovanje, držimo da je homogenost hrvatskog dijela uzorka također odigrala značajnu ulogu u konstruiranju značenja. Točnije, za pretpostaviti je da su čimbenici poput dobi u kojoj su počeli učiti engleski jezik, godine učenja, vrsta škola koje su pohađali, itd. utjecali na njihove kognitivne strategije (učenja) i metakogniciju te time i na proces izgradnje jezičnoga značenja. Varijabilnost u godinama učenja i dob u kojoj su počeli učiti drugi jezik upućuju kako postoji mogućnost da je učenje jezika u Hrvatskoj mnogo sustavnije negoli u Meksiku. Na kraju valja napomenuti da opisana međuovisnost unutarjezičnih i izvanjezičnih čimbenika uključuje i osjetljivu problematiku odnosa između kognitivnih i afektivnih čimbenika u procesu učenja. Primjerice afektivni čimbenik poput straha od jezika znatno utječe na kognitivno procesiranje i usvajanje jezika. Govornici/učenici drugoga jezika s nižom razinom znanja često se boje baviti težim, složenijim jezičnim problemima jer drže da im nisu dorasli. Činjenica da se ne upuštaju u rješavanje navedenih problema, dovodi do toga da ne proširuju svoje znanje i u konačnici manje nauče. Na taj je način krug zatvoren jer njihovo (ne)znanje ponovo dalje utječe na spremnost na rješavanje problema. Za pretpostaviti je da je navedeni krug kognitivnih i afektivnih čimbenika donekle bio prisutan i kod naših ispitanika. Naime ispitanici s višom razinom znanja su značajnije češće nalazili smislenost u kompozicijama fraznih glagola tako što su ih analizirali i pripisali određeno značenje obama sastavnicama. Drugim riječima, nije ih preplašio idiomatizam fraznih konstrukcija.

Možemo zaključiti da proučavanje kognitivnih strategija (učenja) te unutarjezičnih i izvanjezičnih čimbenika koji utječu na proces usvajanja jezika i konstruiranje značenja,

nedvojbeno rezultira novim spoznajama o subjektivnosti i dinamičnosti jezičnoga značenja i neodvojivosti jezika od ostalih kognitivnih sposobnosti. Na taj se način dobiva i kognitivno realističnija slika kako prvog, tako i drugog jezika. Vratimo li se na središnju teoretsku implikaciju ovoga rada, svakako valja završiti osvrnuvši se na šire teorijske implikacije. Općenito govoreći, istraživanje drugoga jezika i rezultati koji se njime dobiju, koriste se za testiranje lingvističkih teorija, doprinose istraživanju u psihologiji i neuroznanosti te imaju niz primjena u području pouke jezika.[61] U našem je radu prisutna izravna i čvrsta spona između lingvističke teorije i teorije usvajanja jezika, a to je potreba da se jezik istražuje u okviru njegove povezanosti s kognicijom. Kao što je istaknuto na samome početku ove disertacije, kognitivne se strategije u okviru usvajanja drugoga jezika istražuju kao individualne razlike koje olakšavaju kognitivno procesiranje i izgradnju značenja. S druge strane osnovna je pretpostavka kognitivnolingvističkog teorijskog okvira da je jezik iskustvena pojavnost povezana s ostalim kognitivnim sposobnostima, a da je jezično značenje subjektivno i dinamično. Dakle poveznice navedenih teorija su prilično razvidne i odnose se na kognitivne procese koji povezuju jezik i kogniciju. Središnja ideja u kognitivnoj semantici, a ujedno i osnovna razlika u odnosu na formalnu semantiku, jest da se značenje mora istraživati kao proizvod umnih aktivnosti koje su rezultat ljudskoga uma koji je fizički utjelovljen te društveno i kulturno utemeljen (Langacker 2000b: 26). Naglašava se da, iako je prerano govoriti o sveobuhvatnoj semantičkoj teoriji koja bi nudila strogi i formalizirani jezični opis, konceptualizacija, koja je temelj jezičnoga značenja, nije kaotična i nesustavna. Jedna od najznačajnijih karakteristika specifičnih konstrukata koji se koriste za opis značenjske strukture jezika, jest činjenica da se temelje na ranije istraženim i lako prikazivim kognitivnim pojavnostima. Navedena je karakteristika ispitana i potvrđena i u ovome radu te time doprinosi ideji da se ono što je univerzalno u jeziku ne odnosi na neovisni mehanizam usvajanja jezika i urođenu gramatiku, već na veze između jezika i ostalih kognitivnih sposobnosti, tj. neizbježnu komunikaciju jezika i ostalih procesa te njihovu jezično specifičnu realizaciju. Dakle strateško je promišljanje značenja u drugome jeziku aktiviralo one procese koji su opisani kao relevantni procesi u izgradnji značenja u prvome jeziku. Nadalje pokazano je da je za govornike engleskoga kao drugoga jezika

[61] Vidi Doughty i Long (2003).

gramatika uistinu smislena i simbolična te da gramatički elementi igraju važnu ulogu u strukturiranju iskustva koje se želi određenim jezikom prenijeti. Navedeno je razvidno u raznolikosti strateškog konstruiranja značenja prijedloga i njihovoj dinamičnoj prirodi unutar kompozicije koju čine s glagolom. Selektivna je pažnja naših ispitanika bila prisutna u i kroz različite domene znanja i rezultirala je nizom strateški izgrađenih značenja. Ponekad je opseg pažnje bio širi, a ponekad uži s fokusom na samo jednu sastavnicu frazne konstrukcije. Proces se nastavljao preusmjeravanjem pažnje na elemente odabrane sastavnice te aktivacijom drugih kognitivnih procesa koji sudjeluju u konstruiranju značenja. U nekim se slučajevima radilo o aktivaciji preslikavanja iz jedne konceptualne domene u drugu, što je primjerice rezultiralo razlikama u razini metaforičnosti određenih značenja. Ponekad su se u znanje o jeziku i svijetu umiješali elementi perspektive te su opisana značenja uključivala elemente vezane uz smještenost konceptualizatora i prostor unutar ili izvan njegovog dosega/konceptualnog područja. Ukratko, rezultati opisani u ovome radu zapravo govore u prilog tri temeljne kognitivnolingvističke pretpostavke, a to su: a) jezik nije nezavisna kognitivna sposobnost, b) gramatika se može izjednačiti s konceptualizacijom i c) jezično znanje nastaje iz jezične uporabe.[62]

Praktične implikacije ovoga rada su višestruke, a ponajviše su vezane uz nastavu, tj. pouku engleskog kao drugog jezika. Kako i koliko određeni čimbenici utječu na proces usvajanja jezika te kako su ti čimbenici povezani, izravno utječe na odabir jezičnih elemenata na koje bi valjalo usmjeriti osobitu pozornost u nastavnom procesu, kao i na načine poučavanja navedenih elemenata. Spomenut ćemo dvije spoznaje koje imaju izravnu praktičnu implikaciju te se mogu jednostavno materijalizirati i provesti u praksi. Prvo, tipološke razlike koje se odnose na to kako hrvatski i španjolski izražavaju temeljne sheme opisa događaja na koje se nije obratila pozornost u dosadašnjim radovima koji se bave usvajanjem fraznih glagola, mogu odigrati važnu ulogu u procesu izgradnje značenja u engleskome kao drugom jeziku. Autori udžbenika i nastavnici jezika mogu osmisliti načine kako skrenuti pozornost učenika na one elemente značenjske strukture koji su tipološki najudaljeniji od prvoga jezika i koji bi mogli prouzročiti izbjegavanje i/ili nerazumijevanje fraznih konstrukcija u engleskom. Primjerice ranije zanemarivana

[62] Vidi Croft i Cruse (2004).

gramatikalizirana značenja prijedloga mogu se uklopiti u nastavni materijal na smislen i kognitivno motiviran način. Drugo, korelirajući razinu jezičnoga znanja s načinima konstruiranja značenja, utvrdili smo različite tendencije. Karakteristike ispitanika s višom razinom znanja te vidovi njihova načina konstruiranja značenja mogu se raščlaniti i uklopiti u vidove nastave koji se bave poticanjem strategija učenja za koje je dokazano da olakšavaju i ubrzavaju jezično procesiranje i usvajanje jezika.