Meaning and interpretation: The semiotic similarities and differences between Cognitive Grammar and European structural linguistics

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Abstract

The theoretical and methodological underpinnings of the cognitive paradigm have traditionally been discussed against the background of generative grammar, its immediate predecessor. A significantly less researched yet no less interesting relationship is the one between the cognitive and structuralist paradigm. This article focuses on the in part converging, in part diverging semiotic assumptions underlying European structural linguistics and Cognitive Grammar. A comparison of important concepts of both theories (isomorphism, the sign concept, compositionality, and case marking) shows that, although Cognitive Grammar arrives at a more realistic understanding of how language works in discourse, the theory fails to offer a coherent theory of the linguistic sign.

Keywords: *structural linguistics; cognitive linguistics; form-meaning pairing; language interpretation; compositionality; history of linguistics*

1. Introduction*

The basic claim of this article is that there are significant differences and similarities between structural linguistics (henceforth: SL) and Cognitive Linguistics (CL) that hitherto have not received the attention they deserve. However, they are indicative of a deeper shift in the semiotic assumptions about the linguistic sign in the recent history of linguistics. Because the topic of such a comparison is vast and multifaceted, it is impossible to address all issues relevant to such a discussion within the confines of a single article, and I will not attempt to give a comprehensive overview of all points on which SL and CL diverge or converge. Moreover, I will restrict myself, for the sake of clarity, to a comparison of European structural linguistics (ESL) on the one hand and Cognitive Grammar (CG) on the other, although it has to be kept in mind that

Semiotica 185–1/4 (2011), 1–50
DOI 10.1515/semi.2011.032
0037–1998/11/0185–0001

structuralism encompasses more than ESL, and Cognitive Linguistics more than CG.

The article is organized as follows. After a brief comparison of SL and CL in general terms and a reflection on the very possibility of comparing linguistic paradigms (provided that they are, indeed, paradigms) in Section 2, Section 3 goes on to discuss specific aspects in more detail. To achieve a reasonably balanced account of the relationship between ESL and CG, both the epistemological and empirical issues that will be discussed are related to questions of meaning, consistent with the observation that semiotics "can be defined simply as the science of meaning" (Danesi 2007: 11). Epistemologically, I will focus on the phenomenon of "isomorphism" as defined within the structuralist paradigm[1] (Section 3.1) and on Saussure's concept of the linguistic sign and its interpretation, and partial adoption, by cognitive linguists (Section 3.4). Empirically, the focus will be on semantic flexibility, as opposed to strict compositionality (Section 3.2), and on the semantics of case marking with prepositions in German (Section 3.3).

By comparing the CG approach of a number of empirical and epistemological issues with observations put forward in the European tradition of SL, I hope I will be able to show two things. First, that a comparison of SL and CL is particularly instructive because it sheds light on what distinguishes SL from a modern, twentieth century linguistic paradigm, namely, CL, a paradigm that differs from Generative Grammar (GG) in many respects. GG is generally referred to as "the immediate predecessor" of CL in chronological terms (Langacker 1988a: 3; Harder 2007: 1243; see also Taylor 2007: 566 and Nerlich and Clarke 2007: 592), and in part also as its progenitor in conceptual respects. CL has been compared to GG in the literature, and there have been efforts to connect CL with pregenerative and prestructuralist linguistics. This has specifically been done to "rediscover" the "long past" of CL, which is, after all, a paradigm with an unusually "short history" (Nerlich and Clarke 2007: 589). It is striking, however, that there has been much less interest in discussing the relationship between CL and SL in a broader perspective, i.e., with regard to theoretical, methodological, and empirical issues at large, with the exception of a few contributions on cognitive and structural semantics and the theory of metaphor (Geeraerts 1985, 1988, 1993, 1997; Nerlich and Clarke 2000, 2007; Taylor 1999) and an article by Langacker (1995) in which aspects of Tesnière's (1966) structural syntax are compared with claims in CG. I hope this article will help fill the gap.

Second, it is interesting to ask why certain claims by cognitive linguists concerning meaning, in particular the common cognitivist equation of language-specific semantic knowledge and general encyclopedic knowledge, are problematic when compared to epistemological distinctions developed in the work of European structuralists. In an attempt to answer this question, I will draw

attention to aspects of the "old" structuralist paradigm that may be considered valuable despite the obvious shortcomings of the SL framework. I believe that only in incorporating these distinctions, CL will be able to establish some of its basic claims on firmer grounds.

2. Comparing paradigms from a semiotic point of view

2.1. *The (in)commensurability of paradigms*

Everyone agrees that comparing and evaluating scientific paradigms in a balanced and sufficiently exhaustive way is a difficult enterprise, in particular if one is not satisfied with constructing opponent straw man positions. Distortions and oversimplifications are certainly not going to advance appreciation of the differences and similarities between SL and CL, although certain oversimplifications may be inevitable. For example, speaking of a "paradigm" is bound to be such a simplifying approach, as no paradigm is completely homogeneous or self-contained. Scholars working roughly within the same framework tend to emphasize different aspects of it, or focus on different objects, methods, and objectives (this is true of both SL and CL, see Van de Walle, Willems, and Willems 2006; Sinha 2002; Geeraerts and Cuyckens 2007). As Geeraerts (1997: 9) observes, CL is "a cluster of broadly compatible approaches," one of which is CG. I will focus on CG because in the already vast amount of literature that has emerged from CL, CG has devoted considerable attention to epistemological and theoretical issues related to meaning, making it particularly interesting for my purposes. The same holds for the cluster of SL. ESL is but one particular structuralist approach, albeit an important one, and in the ESL approach epistemological and theoretical questions about meaning and semantics have always received due consideration.

Another important clarification is in order before we move on. In terms of linguistic paradigms, I believe there is one factor that substantially facilitates the comparison of different theories. This factor relates directly to the semiotic underpinnings of linguistics as a science. It has recently been claimed (Krzeszowski 2002; see also Johnson and Lakoff 2002) that different models of linguistic research may be incommensurable to the point that adhering to one model may be tantamount to being unable to see what the problem is in another model to begin with. While it is true that certain foundational claims of the experientialist language philosophy informing much of the research in modern CL are radically different from most traditional assumptions in twentieth century language study, it is hard to see why such divergences make different models of linguistic research incommensurable or why a critical discussion of one theory by the standards of another theory is otiose. It can be argued that

there is at least one important reason *a priori* why competing theories are always amenable to an illuminating comparison with one another. Not only is there a shared object (this holds for all sciences, at least to a certain extent), but language, even in its broadest sense, stands out as the semiotic activity of which all human beings have a complex and varied preliminary knowledge based in acts of discourse. At this stage, it does not matter whether this knowledge is considered subconscious, half-conscious, potentially conscious or even (as certain theorists claim) unconscious, whether a cultural or biological capacity, or both. The history of the language sciences convincingly shows that language can be turned into an object, analyzed in a truly scientific manner (i.e., in a manner that is theoretically, empirically, and methodologically sound), and understood accordingly, i.e., hermeneutically (see Willems 1994; Carr 1990; Itkonen 2003). Hence, from a semiotic perspective, all linguistic paradigms not only share a common object, broadly construed, but also a common preliminary knowledge of that object, such that no two linguistic paradigms can altogether be incommensurable scientific "models."

Whereas the importance of CL has steadily been increasing over the past two decades, SL is now commonly seen as a closed chapter in the history of twentieth century linguistics. Following this trend, the main focus of the present article will be on claims advanced by cognitive linguists that will be compared to equivalent claims by structural linguists or discussed from a viewpoint informed by structuralist assumptions rather than the other way round. That is to say, I consider CG as the explanandum, conceptually as well as historiographically speaking, and SL as a useful background to advance understanding of what certain cognitive claims are about. However, I hasten to add that taking this stance in no way implies that SL is considered to be superior to CG (or CL for that matter), nor do I envisage a critique of CG that might call up "a kind of reactionary nostalgia for the certainties of an earlier age" (Sinha 2002: 275). What I do envisage is a constructive assessment of the semiotic underpinnings of CG based on certain aspects of the ESL framework. In order not to complicate the discussion unduly, I will focus, as far as ESL is concerned, on the work of E. Coseriu (1921–2002), whose writings are widely recognized as among the most coherent expressions of a "modern" structuralist theory of language.

2.2. *Comparing ESL and CG*

Historically speaking, the main achievement of CL in general may very well be that it has proven to be a strong alternative to GG in the English speaking world — and this without losing sight of true-to-type linguistic issues in the domains of semantics, syntax, morphology, synchronic and diachronic linguis-

tics, and so forth, whereas this has been the case in the pragmatic paradigm, in which "grammar" is not a central issue. More specifically, CL has tried to fill a gap left open by generative linguists, namely, that of linking the individual's knowledge of language as understood in generative terms (also a cognitive issue, to be sure) with the knowledge speakers possess of the "external" world, the CL hypothesis being that language (or, better still, the language of each individual) reflects the conceptualization of the world and experiential influences in its lexical and grammatical structures. Such issues have generally been treated only marginally, if at all, within generative and formal linguistic paradigms, at least prior to the rise of CL.

It would, however, be simplistic to claim that other linguistic traditions, in Europe, e.g., in Germany, France, and Spain, had to wait for CL to offer a thorough criticism of GG. Alternatives to GG had already been developed before CL began establishing itself in linguistics. I will not pursue this question any further here. Suffice it to say that in the 1960s and 1970s European linguists took issue with the common generative view that language is the object of a formal syntax for which meaning is of secondary importance at best. Examples are paradigms such as *inhaltbezogene Grammatik* or structural semantics in Germany and many Spanish speaking countries (Geckeler 1971; Salvador 1985). Questions such as why an active sentence and the corresponding passive sentence do not have the same "meaning" (*Caesar Pompeium vicit >< Pompeius a Caesare victus est*) or why even minute lexical and grammatical variations can bring about non-synonymy (*A is bigger than B >< B is smaller than A*) were already a matter of discussion before the advent of CL (see, e.g., Coseriu 1970 and 2001 [1974]: 98). CL has rightly drawn attention to the importance of such semantic issues, but it was not the first paradigm to do so. In this sense, there is truth in Lazard's allegation regarding the CL focus on meaning:

> Ce qui me frappe, c'est combien tout cela est acceptable et semble familier à un linguiste formé dans l'atmosphère du structuralisme européen. Ce qui paraît étrange, c'est plutôt l'idée générativiste d'un programme, semblable à celui d'un ordinateur, qui commenderait la syntaxe de tout énoncé indépendamment du contenu de sens. La "linguistique cognitive" apparaît comme un retour à la vue traditionelle de la langue en tant que système symbolique servant à la communication entre les humains. (Lazard 2007: 5)

Yet, I do not agree with Lazard's further claim that CL is, after all, nothing more than plain, traditional linguistics (2007: 14), and that since the beginning of the nineteenth century, linguists have always been "cognitive" linguists *avant la lettre*, trying to understand the workings of the human mind (J. Vendryes, e.g., hopes to find, through linguistics, "chez tous les peuples à peu près les mêmes tendances psychologiques, qui seraient les tendances mêmes de

l'esprit human," Lazard 2007: 14). Most importantly, CL and ESL do not share the same view of the "linguistic sign"; they analyze the relation between expression and content differently, with the consequence that their scientific methods and objectives regarding language as an object of inquiry differ in important respects. Lazard appears to have neglected this difference between CL and ESL (see also Lazard 2006). The conjecture that this semiotic difference is crucial in assessing CL vis-à-vis ESL informs what follows, and I will return to it explicitly in Section 3.4.

CL has considerably broadened the scope of linguistic research not only compared to generative and formal linguistics, but also compared to SL. In this sense, the cognitive focus on semantic issues has been particularly beneficial to modern linguistics. Cognitive linguists have drawn attention to aspects of language use that were not within the purview of traditional structural or late-structural linguistic inquiry: the role of profile and base, foregrounding and backgrounding, and focus and perspective in discourse; the importance of general "encyclopedic" information and its internal structure in discourse (synchronically) and in semantic change (diachronically); the experiential basis of extensions and novel uses of words; the pervasiveness of metaphor in discourse (including the Invariance Hypothesis, though not without important qualifications, see, e.g., Brugman 1990; Haser 2005) and its role in language change. Quite simply, SL never had much to say about such issues.

Before I embark on a more detailed examination of the correspondences and differences between ESL and CG, it is therefore worth looking at what according to historiographers of the language sciences should be considered the basic tenets of SL and to briefly point out the major points of agreement and disagreement with CL. As a point of departure, I take the accounts of SL by Robins (1990: 220–221), Matthews (2001: 142–153), and Van de Walle, Willems and Willems (2006) who take as their starting point the work of F. de Saussure. (I will not address the question here as to what extent the following statements apply to Saussure himself or only to SL *after* Saussure, which is subject to considerable controversy, see Jäger 2003).

A first important assumption of SL concerns the strict separation of synchronic and historical linguistics. CL, like other functionalist approaches, tends to minimize the difference between synchrony and diachrony, consistent with the premises of a "usage-based" approach. However, it should be noted that a strict separation of synchrony and diachrony had already been challenged in the work of several structuralists themselves (De Mauro 1995 [1967]: 452–455). Authors like Jakobson (1962: 651) and Coseriu (1974 [1958], 1980), who sought to overcome the limits of SL while still subscribing to some of its basic tenets, strongly disagreed with the view that a language can be examined as a static object. While Jakobson introduced the concept of "dynamic synchrony," Coseriu maintained that all linguistic activity is inherently historical

and that synchrony and diachrony are at best two different perspectives on one object, without being mutually exclusive.

A second assumption of SL, though not shared by all structuralists, was that *la langue* can be abstracted from *la parole*. Moreover, it is claimed that *la parole* is performed on the basis of *la langue* and within the constraints imposed by the latter. CL does not subscribe to this dichotomy. Instead, it argues in favor of an approach in which actual discourse and schematicity form a unity that encompasses different degrees of abstraction and elaboration. Again, however, the Saussurean dichotomy received criticism even within the structuralist paradigm, e.g., by Hjelmslev and Coseriu, who rejected the dichotomy and introduced additional levels of abstraction: *schema*, *system* or *pattern*, *norme* (*norm*), *usus*, *usage* or *sprogbrug*, and *parole* or *sprogudøvelse* (Hjelmslev 1928, 1972 [1934]), or *langue*, *norme*, and *parole* (Coseriu 1975 [1952], 1985). Even so, this did not prevent many structuralist linguists from speaking of the language system and discourse in terms of two separated, virtually autonomous objects, much to the detriment of the internal consistency of the analyses.

A third assumption of SL was that a *langue* must be described "as a system of interrelated elements, not an aggregate of self-sufficient entities" (Matthews 2001: 144). This is perhaps the most pervasive assumption of SL from Saussure onwards through the 1960s and 1970s. While CL does not reject the hypothesis that a language is a "system of interrelated elements," it does not rely on a strict conception of "contrast" or "opposition" in the sense of Saussure in particular and SL in general. Therefore, CL does not seem to reject the idea that linguistic units are in some non-trivial sense self-sufficient entities, as long as they are understood as "cognitive routines" (Langacker 1988a: 11). Moreover, CL is concerned with the "naturalness" of linguistic descriptions (Langacker 1988a: 13) regarding the "experiential" basis of language use. This is a concern that is not explicitly addressed in SL and notoriously regarded invalid, e.g., by Chomsky (2002: 98) who argues that linguistics too should adopt the "Galilean Style" that proved so successful in the natural sciences (see Riemer 2009 for discussion).

A fourth assumption of SL was that a *langue* is language-specific and must be described "in its own terms," which roughly corresponds to W. von Humboldt's idea that every language has its own "inner form" that can be uncovered in careful systematic analyses (see Willems 2006). This may be the point where SL and CL diverge most markedly. CL belongs to the functionalist, externalist approach in linguistics. Particular attention is paid to the impact of psychological, environmental, biological, developmental, sociocultural, historical, and other external factors in shaping linguistic structure (Langacker 1999, 2007; see also Butler 2008). However, it should again be pointed out that several linguists even within the structural paradigm have tried to integrate findings of an "external" nature into their model, to the extent that for many

structural linguists the notions "structuralism" and "functionalism" do not exclude each other. I refer, e.g., to Jakobson's well-known monograph (1962 [1941]) in which he (judging from its aftermath, rather successfully) combines the basic structuralist claim that a language is a system based on paradigmatic oppositions and syntagmatic relations with findings in language acquisition and aphasiology. Other examples of an integration of internal and external evidence in SL can be found in the work of Martinet (1960), who was one of the very first linguists to introduce notions like economy and frequency into SL. I also refer to Hjelmslev's (1928: 183–189) remarks on ideophones, Jakobson's explorations of iconicity in language (e.g., Jakobson (1971 [1965]); see De Cuypere 2008), Coseriu's theory of linguistic "norms," always relative and gradual in nature (Coseriu (1975 [1952]), and the functional framework of Halliday (1978), in which language is understood as a "social semiotic." At any rate, it is clear that it would be a gross distortion to simply subsume European structuralism under the umbrella term "formalist linguistics." The term may be adequate to characterize work in GG and certain writings of structuralists such as L. Hjelmslev (though for other reasons), but it certainly does not adequately capture the writings of European linguists like Jakobson, Kuryłowicz, Benveniste, Martinet, Bally, Coseriu, and many others (nor does it apply, for that matter, to the work of Bloomfield, Pike, and other American structuralists, see Matthews 2001). However, as to the importance of "external" evidence for the overall framework, a crucial difference between SL and CL seems to be that structural linguists tend to integrate "external" evidence into their framework without relying on a different methodology than the structuralist methodology they follow in the first place. Moreover, "external" evidence is of secondary importance, intended to relate the findings about linguistic systems (*langues*) to the realm of pragmatics without necessarily envisaging an integration of the two. Cognitive linguists, on the other hand, are strongly in favor of methodological diversity — the domains of language acquisition, discourse, language change and neurolinguistics are very different and therefore require different kinds of investigation (Langacker 1999: 18) — and they reject the traditional distinction between the linguistic system and pragmatics (Haiman 1980a; Langacker 1988a).

In conclusion, then, while CL and SL differ both theoretically and methodologically, the respective paradigms are not mutually incommensurable. They share the conviction that language is a complex, multi-layered phenomenon that should not be reduced to only one layer, e.g., a formal, essentially syntactic layer, as has been customary in GG. The notion of "system" or "systematicity" is particularly important in both CL and SL, reflecting the belief that not just one or two but as many different language aspects as possible can, and should, be studied in a systematic and comprehensive way. Against that, one of the most striking differences between SL and CL concerns the impact of "exter-

nal" evidence on the two paradigms' respective theories of language. In CL, "external" evidence provides further corroboration for the general holistic perspective on language, in particular for the view that no distinction can or should be made between strictly language-specific semantic knowledge on the one hand and encyclopedic knowledge on the other. Meaning is identified with conceptualization, "broadly defined as encompassing any kind of mental experience" (Langacker 2007: 431).[2] Conversely, SL does not consider "external" evidence as proof that the object of research should be identified with "mental experience" at large. Structuralists rather adopt the perspective, following Saussure (1968 [1916]: 24–27), that the object of linguistic research has to be carefully delimited and defined *within* the vast domain of mental and social experience. On this view, "external" evidence does not render a distinction between meaning (in language) and conceptualization (in general) either superfluous or impossible. Instead, it is deemed imperative to make such a distinction so that coherence and precision in linguistic analysis can be achieved, both conceptually and terminologically. From the point of view of ESL, it is therefore necessary to couch the distinction between language-specific meaning ("signifié") and conceptualization in general in unambiguous terms. In the remainder of this article, I follow common practice and use the terms "meaning" and "semantic" as overall terms, which thus may encompass both language-specific meaning and conceptualization in general. However, whenever required, the Saussurean term "signifié" or the largely equivalent English term "semantic value" will be used to refer to the systemic language-specific level of content (see also note 6).

3. Case studies

I will now compare CG and ESL in more detail. Of the utmost importance for such a comparison is the way in which the paradigms account for "external evidence" (see Section 2.2). I will first discuss an epistemological matter and then turn to two empirical case studies. Finally, I will consider yet another epistemological matter, namely, the way in which cognitive linguists interpret F. de Saussure's theory of the linguistic sign. As pointed out before, I consider the semiotic problems that emerge from the cognitivist assessment of Saussure's theory of the linguistic sign to be indicative of the difficulties that arise from the holistic viewpoint adopted in CG.

3.1. *Expression and meaning: "Isomorphism"*

In ESL, a well-known methodological creed was that the principles guiding the analysis of linguistic expressions, especially in phonology, could also

felicitously be applied to the analysis of linguistic content, an idea already present in Saussure's discussion of the central notion "valeur" in the *Cours de linguistique générale* (Saussure 1968 [1916]: 251–276; see also Hjelmslev 1961 [1943]: § 13). Whether this view is adequate or not is a question of significant epistemological importance and depends in part on the degree of generality with which it is stated. For instance, on the most general level, the view that oppositions hold equally between phonemes and lexical items was uncontroversial among structuralists:

Phonology: /p/ >< /b/, i.e., voiceless versus voiced bilabial stop
Lexicon: Eng. *father* >< *mother*, feminine versus masculine 1st degree lineal kinship term

But some structuralists took it further, e.g., Pottier (1964) and Coseriu (2001 [1964]: 268) in their analysis of the lexical paradigm of seats in French and of adjectives designating age in Latin, respectively:

	s_1	s_2	s_3	s_4	s_5	s_6	
chaise	+	+	+	+	–	+	= S_1
fauteuil	+	+	+	+	+	+	= S_2
tabouret	+	+	+	–	–	+	= S_3
canapé	+	+	–	+	+	+	= S_4
pouf	+/–	+/–	+	–	–	–	= S_5

s_1: meant to sit on s_2: having one or more feet s_3: for one person
s_4: with back rest s_5: with armrests s_6: made of solid material

Figure 1. *Pottier's analysis of the lexical paradigm of seats in French*

phonology (e.g., Dutch): lexicon (Latin):

voiceless	voiced		'old'	'not old'	
p	*b*	bilabial	*senex*	*iuvenis*	persons
t	*d*	dental	*vetulus*	*novellus*	animals and plants
k	*g*	velar	*vetus*	*novus*	things

Figure 2. *Coseriu's analysis of adjectives designating age in Latin*

If this kind of "analogy" between the level of expression and the level of meaning, including features such as binarism, neutralization, etc., can be extended to capture not only paradigmatic but also syntagmatic structures, it provides a particularly strong hypothesis concerning linguistic methodology. Early structuralists have extensively considered this possibility under the heading "isomorphism," e.g., Jakobson, Kuryłowicz, and others. The term "isomorphism" was drawn from mathematics (more specifically, from algebra), which also explains why in structuralism isomorphism is commonly associated with the theory of Glossematics, although Hjelmslev himself never used the term in this sense in his writings.[3] In algebra, isomorphism refers to a mapping relation between structurally identical properties or relations of two objects. In ESL, the concept is essentially interpreted as a heuristic for guiding linguistic research, not as an inherent property of language (see below).

In current linguistics, the term "isomorphism" has acquired a different meaning. A fundamental turn in the understanding of the concept was brought about when Jakobson (1971 [1965]) introduced Peirce's concept of diagrammatic iconicity in order to criticize and eventually reject Saussure's claim that linguistic signs are radically arbitrary. According to Jakobson (1971 [1965]: 350–352), the word order in Latin *Veni, vidi, vici*, the morphology of *high — higher — highest* or *father*, *mother*, *brother*, the opposition between French *je finis — nous finissons*, etc. invariably display an "isomorphic composition of the signans and signatum." Ever since, many linguists have considered isomorphism to be not just a working hypothesis, but a structural "iconic" principle inherent to linguistic signs, or series of signs. In the wake of this new interpretation, the concept of isomorphism was also extended to historical linguistics. For instance, Anttila (1972: 89) writes: "language has a general iconic tendency whereby semantic sameness is reflected also by formal sameness," which is considered proof of the force of isomorphism through time (see also Lehmann 1974). Finally, it was Haiman's 1980 article on two kinds of iconicity (or two aspects of diagrammatic iconicity, namely, isomorphism and motivation, Haiman 1980b) that consolidated the current widespread use of the term "isomorphism" in the sense of a one-to-one correspondence between expression and meaning.

Returning to the structuralist sources of isomorphism in its original sense, an important observation was made by N. Ege (1949), a follower of Hjelmslev. He pointed out that accepting isomorphism as a working hypothesis does not imply that the expression and meaning of linguistic signs actually do correspond to each other: "les *résultants* de l'analyse ne se correspondent pas élément par élément; le parallélisme ne vaut que pour la méthode de l'analyse" (Ege 1949: 23). Apart from glossematicians, other structuralists too were willing to embrace isomorphism in one way or another. Jakobson (1971 [1958]), for instance, applied the hypothesis to the Russian case system, arguing that

there are many structural parallels between the related case meanings and the corresponding phonological shape of the case endings.

The problem with the kind of structural analogy that the concept of "isomorphism" used to designate in ESL is twofold. First: Does the analogy have a sound basis, i.e., can the phonological theory based on the concept of opposition be applied to a sufficient amount of examples in the lexicon (or other parts of grammar) to be really plausible? Pottier's and Coseriu's examples of the lexical paradigm of seats in French and age-designating adjectives in Latin may be quite convincing, but there are, in fact, relatively few examples in the structuralist literature that illustrate complex analogies between phonology and the lexicon in a systematic fashion. Moreover, the fact that a handful of examples is repeated in the literature over and over, strongly suggests that the lexicon is organized in a manner less straightforward than the phonological system and that the analogy might only be of marginal importance.

Second: How far can the analogy be stretched before it becomes virtually vacuous? In one of his articles, Kuryłowicz has argued for the following kind of isomorphism. Kuryłowicz (1949: 50–53) suggests that syllables and clauses can be structurally analyzed in an analogous way. In the syllable, an autonomous, facultative onset *i* precedes the vocalic nucleus *V* and the coda *f*, yielding the structure *i + (V + f)*. The corresponding structure in the clause is, according to the author: *subject + (verb + argument[s])*. Compared to this template, the Latin sentence *Pluit* [It rains] is to be considered a "forme moins développée, réduite." Likewise, syllables ending with *-ē* in various languages can be analyzed as reduced forms of syllables ending with *-ek*, *-es*, *-er*, *-en*, etc. It is difficult to assess the scientific value of such analogies, something that Kuryłowicz himself points out. As a consequence, the idea of isomorphism between expression and content is likely to be judged "aprioristic" rather than illuminating by those who are critical of the structural paradigm and some of its basic premises, in particular the concept of (binary) opposition.

However, while reading through the first volume of R. Langacker's *Foundations of Cognitive Grammar* (1987), the tenacity with which Langacker pursues the idea that there are many parallels between phonological and semantic organization in language is striking (see especially Chapter 9), even though Langacker never refers to previous scholarship in the SL tradition. Cognitive constructs such as autonomy/(in)dependence, correspondence, schematicity, elaboration sites, constituency, and complex scenes are all said to be applicable to both the level of expression and the level of meaning (Langacker 1987: 348). For example, the kind of hierarchical structures found in the phonological organization of segments into syllables and words can also be discerned in the semantic organization of words and morphemes into syntactic constructions, idioms, etc. Incidentally, Langacker's reasoning turns out to be very similar to that of Kuryłowicz. For example, according to Langacker, one and the same

analytical format (with the same relations of schematicity, elaboration or extension, and constituency) applies (1) to phonological phenomena such as the ablauting of the stem in certain verbs (Figure 3), and (2) to semantic phenomena such as the insertion of a clausal particle in the Uto-Aztecan language Cora (Figure 4), or (3) to the metaphorical extension of an expression such as *the cat is out of the bag* ("the secret is disclosed") (Figure 5) (Langacker 1987: 340, 364–365, and 95, respectively):

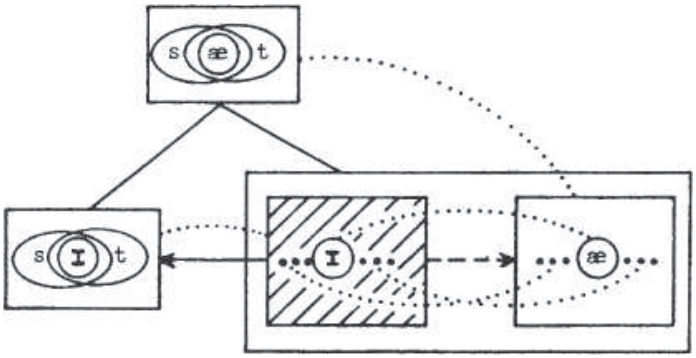

Figure 3. *Langacker's analysis of stem ablauting*

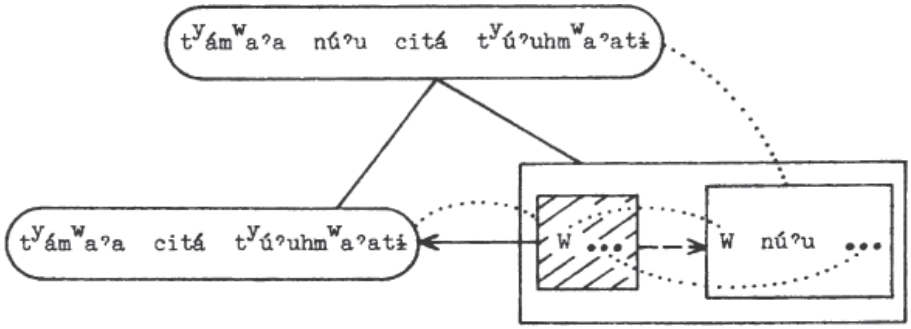

Figure 4. *Langacker's analysis of clausal particle insertion in Cora*

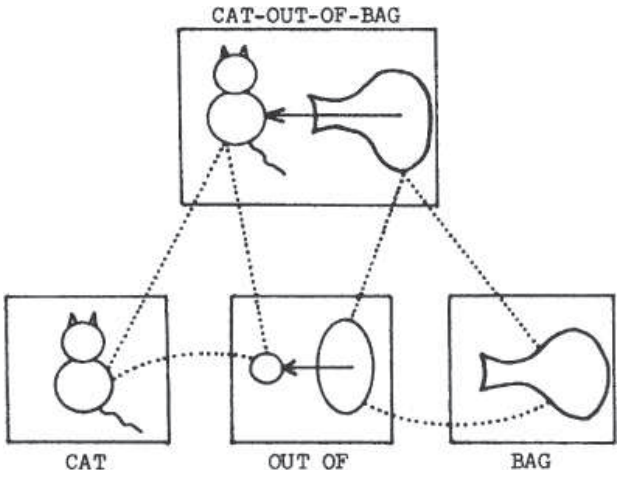

Figure 5. *Langacker's analysis of a metaphorical extension (the cat is out of the bag)*

Essentially the same "constituency-tree diagram" (Langacker 1987: 312–313) is used to represent the combinatory relationships between the various subparts in all three instances (in Figure 5, an additional square may be added that contains *out of* and *bag*). Its format is fairly abstract and amounts to the following kind of schematicity (the two arrows indicate the various possible relationships between the component structures, e.g., argument or modifier, elaboration or extension, etc.):

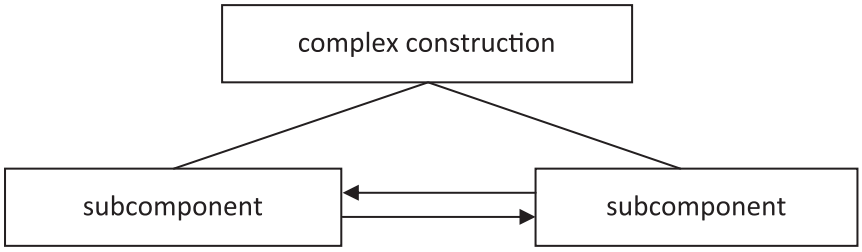

Figure 6. *The "constituency-tree diagram" in CG*

Similarly, the notion "active zone" is evoked in CG to account (1) for semantic structures involving the interaction of only certain facets of an entity with a given domain or relation (Langacker 1987: 272), and (2) for the fact "that certain facets of a phonological component participate more directly and crucially in a valence relation than others" (1987: 366). Compare, for instance:

> Entities are often multifaceted, only certain facets being able to interact with a particular domain or play a direct role in a particular relationship. Those facets of an entity capable of interacting directly with a given domain or relation are referred to as the *active zone* of the entity with respect to the domain or relation in question. Thus the sound emitted by a trumpet when played (or perhaps when dropped) is the active zone of *trumpet* with respect to the process of hearing, whereas the entity it designates is the physical object rather than the sound. (Langacker 1987: 272–273)

> Consider the phrase *England's throne* . . . In purely phonetic terms, it is somewhat misleading to say that *-'s* combines with the stem as a whole. It bears a direct relationship only . . . to that portion of the final syllable consisting of the nucleus and coda, where it functions as the outermost consonantal increment: (((n)d)z)." (Footnote: "This is directly analogous to the phenomenon of *active zones* at the semantic pole.") (Langacker 1987: 366)

Instances like these abound in the CG literature and could easily be multiplied. The examples given suffice to show that the structuralist idea of isomorphism in its original sense seems to play an important role in the general theoretical set-up of CG as well, as witnessed by many passages in Langacker's *Foundations of Cognitive Grammar* (1987, 1991) and several writings of congenial

authors. As in ESL, however, the rationale behind this kind of analogy remains unclear. In CG in particular, it is striking how little attention has been paid to establish the alleged parallelism between expression and content on "external" grounds, given its important, apparently central, role in the theory.

For the time being, it must remain an open question whether the traditional idea of "isomorphism" shared by ESL and CG to a considerable extent has a heuristic basis only, which may lack any deeper "phenomenological" reason in language, or whether it partakes of the very essence of language as a semiotic system. It seems advisable to adopt an attitude of precaution along the lines of the earlier quote from N. Ege (1949: 23), who points out that assuming a fundamental parallelism between expression and content is to be considered a useful methodological postulate of *linguistics*, but that such a parallelism is not necessarily to be found in *language* itself. A strong argument to take this instrumentalist precaution seriously comes from the observation, made by certain structuralists, that overstating the parallelism between expression and content is bound to yield incoherent results.

A case in point is word formation. Coseriu (2001 [1982]) has argued that word formations cannot be coherently analyzed from a point of view that is focused on expression and meaning at the same time. According to Coseriu, word formation has to be approached from a radically semantic viewpoint without assuming any isomorphism between "signifiant" (expression) and "signifié" (semantic value). He adduces several arguments. For instance, if isomorphism is assumed, then the two basic notions *compound* and *derivation* refer to very different phenomena, yet the class of compounds and the class of derivations are in some non-trivial sense mutually delimited with regard to formal and semantic structures. On this view, a complex word like *reddish* (< *red*) is a derivation much like *brightness* (< *bright*), although *brightness* not only entails a change on the categorial level (namely, Adjective > Noun) but also a substantial change of the grammatical function of the word. In *reddish*, no such changes are in evidence. Likewise, the complex word *climber* is considered a derivation because formally it consists of the verb *climb* and the suffix *-er*. Its functional set-up, however, has much more in common with compounds such as *fireman*, *salesman* or *horseman* than with derivations like *brightly*, *re-enter* or *reddish*. Finally, certain problems regarding the proper classification of derivations disappear if a semantic point of view is favored and the formal point of view is relegated to a secondary place in the analysis of word formations (which, by the way, is also evidence that these problems are of a metalinguistic rather than a linguistic nature). There is often no consensus among linguists as to whether a word formation is either a derivation or a compound, and classification depends on whether the constituents exist as free morphemes or not, with the inevitable result that, e.g., words such as *revenir*, *détourner*, and *inhumain* in French are said to be derivations whereas *parvenir*, *surmonter*, and

contrepartie are considered compounds, although the difference in morpheme status is irrelevant to their functional set-up, which is essentially the same in both series of words. Coseriu's conclusion is twofold: (1) the study of word formation is concerned with a genuine object of inquiry that neither belongs to syntax nor to the lexicon, and (2) the procedures of word formation and the corresponding knowledge of language (i.e., of specific types of "signifiés") belong to the province of semantics. The formal procedures of expression can only be identified on the basis of the semantic ones, not the other way round, and they are not isomorphic.

I now turn to a discussion of two empirical case studies: (1) Taylor's critical discussion of "strict compositionality" in linguistic semantics, and (2) the CG approach to the problem of case marking and case meaning with prepositions in German as seen in the work of, e.g., Smith (1985, 1987, 1993, 1995) and Langacker (1991, 1999).

3.2. *Compositionality*

An empirical matter with immediate theoretical implications for the theory of the linguistic sign and its semiotic foundations is the problem of compositionality and how it is dealt with in CG as compared to ESL.

On several occasions, authors like Langacker and Taylor have pointed to the limitations of the so-called "compositionality principle" described in previous, especially formalist and/or objectivist, paradigms. The principle states that the meaning of complex expressions results from the meaning of its parts and the manner in which they are combined (Langacker 1987: 448; Taylor 2002: 96). While acknowledging that compositionality is, in a trivial sense, a "self-evident fact" (Taylor 2002: 97), Langacker and Taylor argue that building up complex expressions does not involve "strict" or "full" but only "partial compositionality." By this they mean that complex expressions often are "subject to interpretation on the basis of conceptual knowledge that goes beyond what is actually symbolized in a complex expression" (Taylor 2002: 98; compare Langacker 1987: 448–457 and 1988a: 15–18). Described as such, it is obvious that CG and ESL are on the same level: linguists such as Saussure, Bühler, Jakobson, Hjelmslev, Coseriu, Lyons, to name just a few, have all repeatedly emphasized the crucial role that "conceptual knowledge" plays in actual language use. The view that it is a mistake to assume that everything conveyed in discourse is also lexically or grammatically encoded as "signifiés" in the language itself, is one of the basic tenets of ESL (Matthews 2001: 119–127; Van de Walle, Willems and Willems 2006).[4] Again, it is striking that cognitive linguists do not duly appreciate this, for whatever reason. But there is more to the principle of compositionality than that. Taylor is among those linguists who have elaborated at

some length on the drawbacks of "strict compositionality" as understood in modern linguistics (we are not concerned here with formal semantics and logic, see Janssen 1997 and Bartsch 2002 for discussion). Taylor's criticism can be broken down into four parts (2002: 98–116).[5]

First, a component of a complex expression does not have "a fixed and determinate meaning within the language." Rather, linguistic items are semantically flexible, vague or polysemous (the three phenomena are considered a matter of degree rather than kind). For instance, the verb *run* designates different things when predicated of humans, mice, horses, and jaguars. Likewise, the verb *eat* has different, but related meanings: "the actual process of a person eating a steak is different from how a person eats an ice-cream, which is different yet again from how a dog eats a bone, or a snake eats a bird" (Taylor 2002: 110). Taylor claims that by coming together in a complex expression, the individual meanings of the words "need to accommodate to each other" (2002: 116).

Second, the manner in which simpler items combine to form complex expressions does not make a "fixed and determinate" semantic contribution to the meaning of the whole expression. Taylor argues, e.g., that compounds of the type [N_1 N_2] are vague, given that the kind of relation between the nouns "is not explicitly coded"; compare, for instance, the different relations that normally hold in extralinguistic reality between the two entities designated by N_1 [*water*] and N_2 in *water pistol*, *water truck*, *water tower*, *water colors*, and *water skis.* Other syntactic constructions are not vague but polysemous because a single syntactic construction can give rise to different meanings, e.g., the intransitive construction [Subj + V + Adv] in *Your mother drives well* and *Your car drives well.*

Third, Taylor argues that the semantic properties of parts of a complex expression are not "fully maintained in the complex expression." For instance, in combinations such as *fake gun*, *stone lion* and *imitation fur*, the "semantic character" of the lexical items forming the head of the NPs is drastically altered by the modifiers, because a fake gun is, in fact, not a gun at all, nor is a stone lion "really" a lion. Taylor observes that the semantic relation between modifier and head in NPs such as these is different from the relation between modifier and head in, e.g., *loaded gun* or *small lion*, because these NPs are (normally) used to refer to a real gun and a real lion, respectively.

Finally, Taylor claims that the composite meaning of a complex expression such as *the football under the table* cannot be derived from the combination of the lexical meanings of the words and the syntactic meanings rendered by the precise combination of these words. Rather, a "surplus" meaning accrues to *the football under the table* that does not derive from either the lexical or the syntactic meanings involved in the compositional process (see also Langacker 1987: 279–282). In particular, *the football under the table* may have a meaning

that goes beyond what is "actually encoded" (Taylor 2002: 106), e.g., as when this expression refers to a configuration that, although different from the one normally expected (Figure 7 top panel), still is a perfectly legitimate instantiation of its meaning (Figure 7 bottom panel):

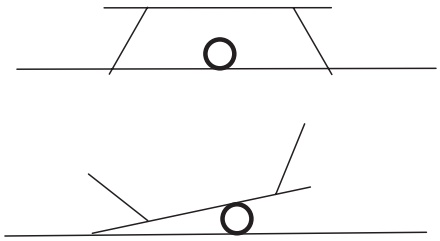

Figure 7. *(top panel) the football under the table (interpretation 1); (bottom panel) the football under the table (interpretation 2)*

Even the default interpretation illustrated in the top panel of Figure 7 is not strictly compositional according to Taylor, for if the ball were really "under" the table, it would have to be under the floor (Taylor 2002: 108). Thus, the interpretation of the preposition in *the football under the table* "distorts" the meaning of the preposition (Taylor 2002: 108).

Before considering Taylor's examples and explanations, it may be helpful to draw attention to two aspects in the rejection of "strict compositionality" that are particularly important from the point of view of ESL. First, the statement that expressions are "subject to interpretation on the basis of conceptual knowledge" not inherent in the linguistic expression itself, which is true for simple and complex expressions alike, may very well be called a truism, at least among linguists. As pointed out above, this aspect of the "intentionality" of speech has been particularly emphasized by several theoreticians of ESL, thereby often explicitly referring to Husserlean phenomenology (e.g., Cassirer, Bühler, Pos, Jakobson, Hjelmslev, Coseriu, among others, see Willems 1994 for further discussion). Second, it has to be asked whether invoking "conceptual knowledge" that goes beyond what is actually symbolized in the expression does not presuppose that a neat distinction can be drawn between conceptual knowledge inherent in the expression and conceptual knowledge external to it. While such a distinction is again fundamental to ESL, in CL it is usually explicitly denied that it can be maintained (Geeraerts 1985: 120 and 1997: 19), the cognitive, holistic conjecture being that systemic "semantic concepts" and "encyclopedic concepts are identical" (Geeraerts 1985: 44); see also Langacker (1987: 5), Langacker (1988a: 5–6 and 1988b: 49 "meaning is equated with/reduces to conceptualization"), Smith (1995: 295), Peeters (2000: 3–4), Geeraerts and Cuyckens (2007: 3), Dirven and Verspoor (2004: 14), among others.

Taylor does not explicitly draw on previous scholarship in his discussion of the compositionality principle, with the exception of a casual reference to

Sweetser's treatment of compositionality in the framework of Fauconnier and Turner's theory of Mental Space Blending (Sweetser 1999). Sweetser's and Taylor's account are, however, characterized by an important difference. Sweetser intends to unravel "the complexity of constructing [the] compositional meaning" (1999: 134) of Adjective-Noun phrases (e.g., *red ball*, *fake gun*, *likely candidate*, *intellectual sleeping pills*) by asking what "the hearer's job" is in finding an adequate reading for these phrases and what it means that the hearer blends different mental spaces in order to make sense of complex expressions. Sweetser's focus is thus on the "pragmatic interpretation" of lexical units. Taylor, on the other hand, points out that Sweetser does not mention whether compositionality is strict or only partial (Taylor 2002: 97). His aim is to find out to what extent the interpretation of lexical units — "on the basis of conceptual knowledge that goes beyond what is actually symbolized in a complex expression" (Taylor 2002: 98) — affects their *meaning* (in the broad cognitive sense of the term), given that "pragmatics is fully subsumed into a semantic characterization" (Taylor 2002: 104) of the utterances under discussion.

The question arises whether Taylor's account is cogent or not and whether the theory of ESL is of any help in clarifying the issues he addresses. It seems appropriate to show why Taylor's account is problematic when it is examined more closely from a structuralist point of view in which several conceptual distinctions are foundational. Among these, two distinctions are particularly important for the present purpose: (1) the distinction between the features of the language under study and the analytical procedures reported on in the language of analysis (Coseriu 2001 [1974]: 85–87 and 2001 [1976]: 141–144), and (2) the distinction between the semantic knowledge of language-specific semantic values ("signifiés") and extralinguistic knowledge, including encyclopedic knowledge (Coseriu 2001 [1974]: 96–105 and 2001 [1976]: 333–351).[6]

From the point of view of ESL, then, there seems to be a contradiction in Taylor's distinction between what is explicitly "symbolized" in the language and what is not. For example, the fact that the compounds *water tower*, *watercolors*, and *water skis* designate different relations between certain objects and the substance called *water* is hardly a matter of linguistic meaning *in English* but rather, as Taylor rightly points out, a matter of "conceptual knowledge." However, when the semantic "surplus" Taylor is looking for does not lie in the semantic values of the constituents of the compounds or in the manner of their combination, then *water tower*, *watercolors*, etc. are invariably complex expressions with meanings that are exactly those described by a plain linguistic compositionality principle. If this were not so, no distinction could be made between the meaning attributable to a compound word and the interpretation of it in a particular context, which lies at the basis of any distinction between what is encoded in the language and what is not explicitly "symbolized."[7]

Likewise, claiming that in complex expressions like *fake gun* and *stone lion* the meanings of the constitutive parts are not "fully maintained" because no real gun or lion is meant, is likely to be a self-contradictory statement. Strictly speaking, the semantic properties of *gun* and *lion* have to be maintained in order for the modifiers *fake* and *stone* to be able to contribute to the meaning of the complex expressions in the first place, because otherwise *fake gun* and *stone lion* could not refer to a gun that is *not* real ("fake") or a lion that is *not* a real animal ("[made of] stone"). The fact that the *entire NP* is used to designate objects that are not "real" exemplars of a gun or a lion does not entail that the meanings of the heads of the NPs are modified or "not maintained." Sweetser's (1999) account of such expressions on the basis of Mental Space Theory can also be read as an attempt to prove just that: unless a gun is what the word says it is in one mental space, it cannot be called a fake in another mental space (see Harder 2003).

At times, Taylor's argumentation seems to be circular. For instance, he interprets the semantic flexibility of verbs such as *run* and *eat* as evidence for the view that these verbs do not have "a fixed and determinate meaning within the language." For one thing, it is beyond dispute that both lexical and grammatical items display a great amount of semantic flexibility (sometimes called "multifunctionality"), and I know of no linguist who has ever suggested it would be otherwise. Furthermore, if the expression "fixed meaning" refers to historical immutability of meaning, I know of no serious linguist claiming that word meanings are not subject to language change. Yet does this entail that semantically flexible items do not have a determinate meaning within the language? From the point of view of ESL, there are several reasons to argue that they do, one of which is cross-linguistic comparison. While it is a trivial observation that the actual processes of a person eating a steak, a dog eating a bone and a snake eating a bird are different, it is not trivial to observe that these processes may be designated differently in different languages, or, to put it another way, that these processes may be categorized by different language-specific "signifiés." This is precisely what the expression "determinate meaning" refers to from an ESL point of view. For instance, the determinate "signifié" of *eat* in English differs from the determinate "signifié" of *essen* in German, because in German *essen* is not used in relation to most animals, except for pet animals; with reference to most animals, the verb *fressen* has to be used, which has no equivalent in the English lexicon. Surprisingly, Taylor's view of the semantic flexibility or polysemy of the verb *eat* entails that this lexical-semantic distinction between English and German cannot be accounted for in a straightforward manner. Likewise, it is readily apparent that cows, human beings and mice run differently. But from an ESL point of view this observation is only relevant to the discussion when the instruments are provided that enable us to find out how the activity of running by different agents or things is designated *in a particular*

language. Compare, e.g., the semantic differences between motion verbs designating concepts like "come" and "go" in several Romance languages, in particular French, Spanish, Portuguese, and Rumanian (Coseriu 2001 [1964]: 272), or the handful of verbs for various kinds of "walking" in English with the many — etymologically often unrelated — verbs designating all kinds of "walking" in Shona (Comrie, Matthews, and Polinsky 2003: 89):

chakwair	walking with a squelching noise through a muddy place
chwakatik	walk making a noise of breaking sticks
dowor	walk for a long time on bare feet
donzv	walk with a stick
duduk	walk backward
kokonyar	walk bent double with an arched back
kunzvur	walk about restlessly
mbey	walk all around an area
mbwembwer	walk with your body or buttocks shaking about
panh	walk a long way
pfumbur	walk raising dust
pushuk	walk with a very short dress
rauk	walk with long steps
rindimar	walk haughtily
seser	walk along with the flesh rippling
tabvuk	walk like a grasshopper with thighs so thin you seem to be jumping
vefuk	walk bent under a heavy load
etc.	

From examples such as these it becomes clear that identifying encyclopedic knowledge with language-specific semantic knowledge and subsuming both invariably under one single general heading "meaning" is likely to cause confusion in semantics: determinate meanings are rejected (and not identified or deemed necessary to be identified in the first place), yet this is not done on the basis of intrinsic grounds but because making a distinction between language-specific "signifiés" and encyclopedic knowledge, no matter how difficult to make on specific occurrences, is considered to be not feasible and, ultimately, superfluous.[8]

This is not to say that there are no problems with a rigid structuralist approach that seeks to determine language-specific semantic "invariants" within the broader realm of concepts, ideas and mental representations. Quite the contrary, there are many problems with this approach as well, which I can only mention in passing. Determining language-specific semantic values is particularly complicated: there is the difficulty of delimiting the lexical fields or paradigms of words, as well as the difficulty of delimiting the lexicon of natural

language vis-à-vis terminologies and nomenclatures; another problem is that the structural approach clearly does not lend itself equally well to all parts of the lexicon (and grammar); then there is the crux that many structuralists almost exclusively rely on intuition, but this has proven not to be a reliable basis unless it is supplemented by extensive analyses of corpus data; another drawback concerns the status of analytic features, which ought to be of a metalinguistic nature; etc. I will not elaborate on all of the aforementioned problems, but it may be useful to focus on two structural-semantic assumptions that raise particular problems.[9] First, there is the problem of mutually delimiting the lexical fields or paradigms of words. Where does one paradigm end and another begin? Coseriu (2001 [1976]: 340) recommends that we rely on intuition, but he seems to admit that this may be a shaky basis upon which to build a thorough semantic analysis. For example, Coseriu is not entirely sure whether in the French language words like *neige* and *pluie* stand in opposition to other words expressing various kinds of "water." He suggests that it might be more adequate to oppose *neige* and *pluie* with *grêle*, *brouillard*, *brume*, *beau temps* and other words for "weather conditions." This would entail that it is ultimately irrelevant for the language-specific semantic invariant of, e.g., *pluie* whether it refers to water or some other liquid substance (one could imagine, for instance, a rain of champagne). It is easy to see why the choice between the two alternatives contemplated by Coseriu must remain unsatisfactory: there is neither some intuitive reason to reject the link between *neige* and *pluie* and "water" in the French language, nor do the uses of these words in actual discourse invalidate such a link. The same holds true for the link between *neige* and *pluie* and the words for "weather conditions" to which Coseriu refers. This is tantamount to saying that intuition cannot exclude words like *neige* and *pluie* from being situated in paradigmatic relations with "water" and that both paradigms (the "water" paradigm and the "weather conditions" paradigm) may very well co-exist together as equally relevant to the French lexicon.

On the other hand, Coseriu's account (2001 [1976]: 338) leaves no doubt that German *jung* [young] and French *jeune* are adjectives "réservés aux 'êtres animés,' " with the consequence that *ein junger Schnaps* [a young schnapps] and *une eau-de-vie jeune* have to be considered metaphorical uses of *jung* and *jeune*. However, no further reason is provided why in the case of *pluie*, "water" is not a pertinent feature, while in the case of *jeune*, "living being" is a pertinent one (apart from the general observation that in most languages adjectives are determined by class-meanings, Coseriu 2001 [1976]: 351–352, compare *jung* [young] and *neu* [new] versus *alt* [old] in German). Again, the question arises as to the validity of intuition in semantic analysis if not corroborated by other evidence obtained by applying appropriate observational methods. Clearly, the commutation test, though an indispensable tool to identify the values of semantically related words within a language (Coseriu 1992: 194–198),

does not suffice to establish the systemic relevance of semantic components and to mutually delimit lexical paradigms. It has to be considered as one of the major drawbacks of European structural semantics that it has never been able to provide the methods needed to handle these problems in a satisfactory way.

A second structural-semantic assumption that is problematic is that lexical "variants" are considered to be instantiations of "invariants," but some authors explicitly deny the possibility of inferring the invariant semantic value of a word from its instantiations, "car l'interprétation des variantes en tant que variantes (c'est à dire en tant qu'acceptions différentes) suppose la connaissance de l'invariante" (Coseriu 2001 [1976]: 337). It is understandable that circularity should be avoided at all costs in determining the "signifiés" (or, better still, the "boundaries" of the "signifiés") of individual words. Yet, if the definitions of meaning invariants are to be agreed upon without at least presupposing the possibility of achieving them by inductive reasoning, then the price to pay seems unreasonably high. Such an approach is namely at risk of retreating into an idealism that is no longer amenable to falsifiable research. However, today there is general agreement that linguistic semantics is a science of intersubjective norms that cannot appeal to intuition alone.

Finally, an often-heard argument is that the methodological basis of the distinction between encyclopedic knowledge and language-specific semantic knowledge is spurious because it is impossible to make a distinction between attributes of extra-linguistic reality and systemic linguistic-semantic features (Kleiber 1990; see also Jackendoff 1990: 33 and Taylor 1999: 28). However, this argument reflects a pervasive misunderstanding of much work carried out in European structural semantics. Coseriu (2000 [1990]: 26), for example, points out that most semantic features adduced to describe the systemic semantic values of words are natural and thus conceivable in referential terms, since they correspond to properties attributed to the objects of extralinguistic reality. The point is not (and has never been in ESL) whether these features are natural and referentially plausible, but rather whether they are distinctive features in the language-specific semantic system under scrutiny, i.e., whether they have to be used to describe the semantic oppositions that hold within lexical paradigms. Of course, this does not imply that the "signifiés" themselves are assemblies of semantic features, introduced solely for analytic purposes (Coseriu 2001 [1976]: 347).

Let us return, to conclude this section, to Taylor's critique of strict compositionality. From an ESL perspective, circularity can also be detected in Taylor's discussion of the alleged "distorting" impact that interpretation has on the semantic properties of the preposition in a complex expression such as *the football under the table*. The circularity involved is well known and often described by structural semanticists (see, e.g., Coseriu 2000 [1990]: 27–29). It consists of a two-stage process. First, the meaning of a word is arbitrarily

determined by assuming too many semantic features derived from some salient or "normal" usage of the word. The semantic description is then judged insufficient, and Taylor's explanation of this insufficiency is that the very endeavor to give a "determinate" definition of a word's meaning has to be considered misguided because it can be rendered invalid through interpretation. However, it can easily be shown that the interpretation to which Taylor is referring renders invalid the wrongly assumed semantic features of the word, not the hypothesis that the word has a determinate meaning. In the case of *the football under the table*, for instance, Taylor assumes that one of the semantic components of *under* is [LOWER THAN]. "It seems fair," he writes, "to say that *under* designates a spatial relation between two objects, one of which is located lower than the other" (Taylor 2002: 108; cf. Langacker 1987: 280). Because this feature conflicts with the interpretation given to, e.g., Figure 7 (top panel), Taylor concludes that the interpretation "distorts" the meaning of the preposition. It seems more accurate, however, to conclude that a simple two-dimensional feature [LOWER THAN] is not a semantic feature of the word *under* and that it has no place in the lexical-semantic definition of the preposition on which Taylor bases his analysis. Not surprisingly, the feature is not a criterial trait of the semantic definition of the preposition *under* in standard dictionaries (see Merriam-Webster's, Oxford etc., which refer to "beneath," "below," etc.), although they do point out that *under* can be used in the sense of "lower than" as well, as e.g., in *under the floor*. Obviously, no interpretation can "distort" something that isn't there in the first place.[10]

Note, moreover, with regard to *under*, that Taylor's attempt to criticize strict compositionality not only falls prey to circularity, but that his argumentation also casts a revealing light on the concept of prototypicality to which he implicitly commits himself. In accordance with the assumption that *under* prototypically designates a two-dimensional [LOWER THAN] relation, the following configuration of a football and a table would meet the prototypical description of *the football under the table*:

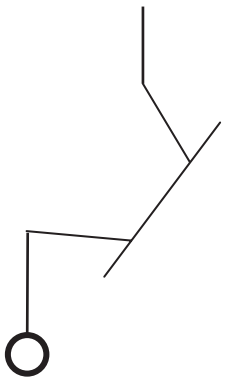

Figure 8. *The football under the table (interpretation 3)*

However, Taylor himself points out that you have to let your imagination run wild to come up with a bizarre situation like this: you could suppose a helicopter hovering overhead with a table suspending by one of its legs from the helicopter and the football in turn suspending from another leg of the table (Taylor 2002: 107). What this example shows is that Taylor's choice of the alleged prototypical instantiation of *X under Y* is quite arbitrary. Moreover, it is at odds with the pre-theoretical observation that common spatial uses of the preposition *under* in instantiations such as *under the table, under the bed, under a tree, under a blanket, under his jacket*, etc. have no simple relation with the two-dimensional feature [LOWER THAN]. Obviously, the "prototypical" meaning of *under* is not confined to the relation between the horizontal and vertical axes highlighted in Taylor's diagrams.

Finally, Taylor's discussion of the alleged polysemy of *The X drives well* is flawed because it is based on a superficial analysis of the data. Taylor argues that the intransitive construction [Subj + V + Adv] is polysemous because the subject can be an Agent, as in *Your mother drives well*, or a Theme, as in *Your car drives well.* Yet he does not explain why the formal similarity of both sentences, identical in all but the subject NP, should be a signal of constructional identity. As a matter of fact, this is highly unlikely. It is undoubtedly an integral part of the tacit grammatical knowledge of competent speakers of English that the sentence *Your car drives well* instantiates the intransitive construction [Subj + V + Adv], but it is reasonable to assume that such competent speakers also know that *Your mother drives well* is an intransitive realization of a transitive construction [Subj + V + Obj [+ Adv]] in which the valency of the verb *drive* is being reduced, causing the object to remain unrealized (cf, e.g., Tesnière 1966: 238–239). Moreover, a class of verbs, often infelicitously called "ergative verbs" (e.g., *drive*, *drink*, *smell*, *bake*, *role*, *break*, *melt*, etc.), happens to be compatible with both constructions without requiring a morphological change. All that is required is a change in the thematic role of the subject. Note that the intransitive construction is usually dependent on an adverbial phrase (e.g., *The car drives well*), whereas an adverbial phrase is an optional modifier in the unreduced transitive construction (*She is driving the car [well]*). This explains why the reduced transitive construction is grammatical also without an AdvP, whereas the intransitive construction without an AdvP is either ungrammatical or else requires a very specific syntactic context (cf. *Your mother is driving* versus **Your car is driving*).

The upshot of this brief meta-analysis might be that a CG account of the linguistic compositionality principle can still benefit from certain clarifications provided by ESL on similar topics. Does this mean that we are dragged back to long-discarded dichotomies so common in SL (see Sinha 2002: 273)? No, not necessarily. But I do think that the above discussion is useful insofar as it addresses certain limits of the scope that cognitive grammarians usually attribute

to their point of view. Crucially, the "meanings" of complex expressions postulated by Taylor with the aim of invalidating certain aspects of the compositionality principle are not what they are supposed to be. The conclusion is, therefore, that Taylor does not, strictly speaking, address the problem of compositionality with respect to linguistic semantics but rather something else.

In the next section, I will present additional arguments for the view that CG generally is not concerned with the same matters as ESL and that it is therefore unlikely that CG can altogether replace ESL. To conclude, I will address the question as to what exactly the object of CG constitutes as compared to the object within the ESL framework.

3.3. *Case marking*

Whereas CG and ESL are clearly opposed to one another as far as (partial) compositionality is concerned, differences between the two paradigms appear to be less pronounced with respect to other issues, at least at first sight. For example, certain remarkable similarities between CG and ESL emerge when we turn to the problem of case marking and the linguistic account of the meaning of cases. However, we will see that on closer inspection there are again notable differences that point to important divergences in the conception of the linguistic sign in both frameworks and in the way CL and ESL construct their objects of inquiry.

On several occasions, cognitive linguists, e.g., Langacker (1991: 398–403; 1999), Smith (1985, 1987, 1993, 1995), Janda (1990), and others, have argued that all instantiations of a single morphological case are meaningful in one way or another and that the different uses of a case "display a clear family resemblance" (Langacker 1991: 399). In other words, they consider a single case to be a complex category, the instantiations of which can be accounted for by postulating a prototypical, cognitively central image schema (or "construal") and a series of polysemous extensions.

It is worthwhile to point out a remarkable similarity to ESL, although it may often be obfuscated due to differences in terminology. In both ESL and CG, morphological case is not considered a semantically empty category, but a meaningful one. This follows directly from the fact that meaning is considered to be the driving force of language by scholars within both paradigms (see Van de Walle, Willems, Willems 2006 on ESL and Langacker 1987 on CG). Moreover, it is assumed in both ESL and CG that the different uses of a single case can be related to a single meaning or a single category, that is to say, such uses can in principle be subsumed under one general heading. While in ESL, e.g., in the case theories of Jakobson, Hjelmslev, Benveniste, among others, this heading is generally a highly abstract "paraphrase" of a case meaning (see Willems

1997), cognitive linguists generally conceive of cases as radial categories with a prototypical instantiation and various extensions. However, it is striking that, e.g., Smith (1993, 1995) and Langacker (1991: 398–403) posit a single so-called "image schema" for all uses of the accusative (ACC) in German, and that Leys (1995: 40), following Langacker, believes that a "uniform principle" ("einheitliches Prinzip") can account for all the differences between ACC and dative (DAT) marking in German, not only in terms of syntactic case marking of arguments but also in terms of morphological case marking with prepositions. Langacker, in his discussion of Tesnière's model of a structural syntax, stresses the importance of offering "highly schematic characterizations directly applicable to all class members" of a category, because a grammatical class can be "characterized in terms of both a *prototype*" and "a highly abstract *schema*" (Langacker 1992: 18–19, emphasis in the original; compare also Smith 1995: 294). Finally, in her account of the uses of the DAT in Czech, Janda (1990: 271) even goes so far as to claim that the postulation, in CL, "of internal structure for cognitive categories renders the old structuralist slogan 'one form, one meaning'[11] practicable" — with due qualifications, however, as to the meaning of the term "meaning" in CL.

Let us examine one case study in greater depth. Most prepositions in German consistently govern a single case, but there are nine so-called "two-way prepositions" because they take the ACC or DAT depending on the specific function or sense to be expressed in the clause. The prepositions that allow both options are *an* ("at"), *auf* ("on"), *hinter* ("after, behind"), *in* ("in, into"), *neben* ("next to"), *über* ("over, about"), *unter* ("under, below"), *vor* ("in front of"), and *zwischen* ("between"). Whereas this is not the case regarding one-way prepositions, it is generally assumed that morphological case marking with two-way prepositions can be explained in terms of general functional principles and that the contrast between the two case assignments is crucial for an adequate explanation. In the nineteenth and early twentieth century it was common to explain the choice for ACC with these prepositions by means of notions like "direction," "motion," "dynamic process," etc., whereas DAT was said to mark "no direction"/"location," "no motion," "no dynamic process"/"static event." Unfortunately, none of these previous accounts appear to be flawless and none of them manage to cover all instances of two-way case marking. This is one incentive for why several authors working within the CL framework have tried to come to grips with the issue. Another is the conviction that the alternation of ACC and DAT with two-way prepositions lends itself particularly well to a cognitive account in which "particular kind[s] of cognitive or conceptual motivation" (Langacker 1991: 382) are stressed, namely, semantic-conceptual reasons for the alternation.

Langacker (1999: 35), following Smith (1987, 1995), claims that "accusative case is used when the trajector's path reaches and enters the search

domain, making it the goal in terms of a source-path-goal image schema, and dative case is used when this is not so (e.g., when the trajector's motion is entirely confined to the preposition's search domain)."[12] This is represented in the diagram below (the search domain of the preposition is the shaded part):

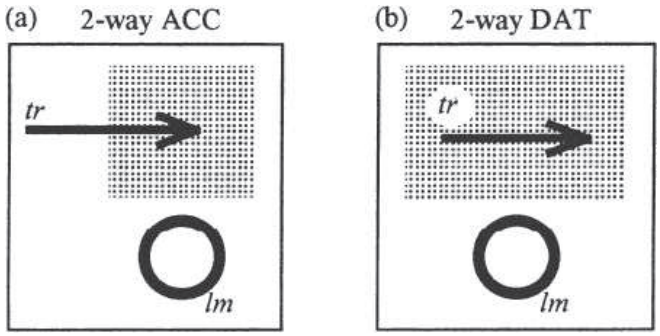

Figure 9. *Langacker's image schemas of case marking with two-way prepositions in German*

Compare the following examples (see Smith 1995: 294; Langacker 1999: 35; Langacker 1991: 402):

Wir wanderten in den (DAT) Bergen.
"We wandered around in the mountains."
Wir wanderten in die (ACC) Berge.
"We wandered into the mountains."
Das Auto steht hinter dem (DAT) Baum.
"The car is standing behind the tree."
Er stellt das Auto hinter den (ACC) Baum.
"He parks the car behind the tree."

These examples are simple cases in which the prepositional phrases *in X* and *hinter X* refer to straightforward spatial scenes, to which the case alternation between ACC and DAT, as described in the image schemas, can readily be applied. However, there are several constructions with a verb and a two-way preposition that do not seem to support these "conceptual motivations." Consider the following examples:

Die Sonne verschwindet im Meer.
"The sun disappears into/in the sea."
Sie verbirgt die linke Hand hinter dem Rücken.
"She hides her left hand behind her back."
Er fuhr durch den Zaun und landete auf der Straße.
"He broke through the fence and landed on the street."

In these sentences, the DAT case does not square with the image schema provided for DAT in Figure 9, and the difference in search domain claimed to be essential in determining prepositional case marking in German fails to account for the actually occurring case. Quite the contrary, if applied consistently, the proposed generalization and the proposed image schemas make wrong predictions and yield wrong results.[13]

Upon closer examination, the cognitive account appears to be similar to traditional pre-structural explanations. As noted before, it was common practice in the nineteenth and early twentieth century to explain the choice for ACC with these prepositions by means of notions like "direction," "motion" etc., whereas DAT marked "no direction"/"location," "no motion" (Leys 1989; Willems 1997). However, localist or semi-localist accounts of case can also be found among structural linguists, an example being the famous treatise on *La catégorie des cas* (1935–1937) by L. Hjelmslev. Unlike CG accounts, however, Hjelmslev uses concepts like "direction," "coherence," and "subjectivity versus objectivity" in an abstract, structurally defined way and in reference to an arcane so-called "sublogical system" (informed by the work of L. Lévy-Bruhl) rather than to a bodily experience, and without a trace of "embodied meaning." Another important consideration as to the differences between the CG account and comparable accounts of case in ESL is methodological in nature. As I pointed out before, structuralists hold that the function of one case can be properly understood only in contrast to (the function of) the other cases in the case system, each case having its specific semantic value by virtue of its function or, metaphorically speaking, its "place," in the entire case system (e.g., Hjelmslev 1935–1937, VII [1]: 20). This is, of course, in line with Saussure's assumption that the oppositions between linguistic signs are foundational to the functions of the signs themselves. This view is also supported in non-localist structuralist accounts of case meanings. Jakobson, for example, calls the ACC case in Russian a "Bezugskasus" [case of relationship] because the ACC NP designates a relationship in the clause with the NP in the nominative (NOM), which is called a neutral "Vollkasus" [central case]; the DAT is called a "Randkasus" [marginal case] because the DAT NP has a "marginal" function with respect to the central predication of the clause consisting of a subject and an object (Jakobson 1971 [1936]); etc. Jakobson's conclusion is that the Russian ACC is exhaustively described as "Vollkasus" + "Bezugskasus," the DAT as "Randkasus" + "Bezugskasus." In CG the perspective is substantially different. Although Langacker and Smith try to capture the role of a search domain in determining case by comparing two different relationships between a trajector and the search domain, they do not contrast the ACC construction with the DAT construction in order to define the meaning of the two cases, nor of the two constructions involved. To put it in Saussurean terms: The obvious resemblance between, e.g., the image schema for ACC case-marking

and the image schema for DAT case-marking (see Figure 9) does not reflect a difference between the two case-marking constructions on the level of some underlying linguistic "system." Both image schemas are self-contained representations of particular forms of cognitive "construal" and do not derive their meaning from any systemic opposition whatsoever between the two cases involved. This also explains why both image schemas are readily interpretable in and by themselves, without the need of contrasting them, their primary function being to show how two different search domains become "grammatically visible" (Langacker 1999: 34) and determine case assignment after two-way prepositions. Compare this with the aforementioned concepts in Jakobson's case theory: it is impossible to assess what a "Bezugskasus" like the ACC in Russian is without reference to the neutral "Vollkasus" NOM, and the same holds for the "Randkasus" DAT in contrast to NOM and ACC. To emphasize this fundamental aspect of his structuralist case theory, Jakobson (1971 [1936]) uses the term "correlations."

Observe, however, that it would not be fair to criticize the CG account of the ACC and DAT case marking with two-way prepositions in German without pointing out that this is an extremely difficult issue to resolve. Moreover, I don't know of any entirely satisfactory structural account either, as the structural accounts, too, tend to confine themselves to less controversial instantiations of case marking and often leave the intricate matter of variation, e.g., in prepositional case marking, untouched. Moreover, one of the upshots of the discussion above is that CG too tacitly acknowledges abstract schematic functions of the ACC and DAT in German and that these functions are key to understanding the differences in case marking following two-way prepositions. At the same time, however, CG rejects the view that a distinction can be made between a systemic level of grammatical oppositions, on the one hand, and the general level of language use which encompasses the interaction of linguistic devices proper with conceptual, experiential organization and processing mechanisms, on the other. From the point of view of ESL, recognizing abstract schematic — or, what in structuralist terms would be called, "invariant" — functions without simultaneously acknowledging the need to delimit and specify the idiomatic, language-specific oppositions and functions vis-à-vis the wider range of pragmatic and experiential processes, is likely to lead to contradictory results.

In light of my critical assessment of the cognitive characterization of German prepositional case marking constructions, one might come up with different explanations for its shortcomings. A first explanation that may come to mind is that the cognitive image-schematic account does not take the tenet of the "usage based model" seriously and that it relies too much on the traditional linguistic methodology that combines introspection with a minimal amount of actual data, rather than on the analysis of a representative body of data by

means of reliable quantitative methods. One might argue that only in this way the analysis can be truly empirical in the sense developed in an increasing amount of papers by cognitive and other linguists who urge linguists to embrace the "empirical turn" rendered possible by corpus linguistics, experimental psychology and statistical processing techniques (Geeraerts 2006). While it is true that Langacker and Smith reach their generalizations through the analysis of only a few, mostly prototypical and often artificial, instances of two-way prepositions in German, I hesitate to classify the problem of their analysis as quantitative or "empirical" in such a sense. Nor do I believe that the problem can be fixed by adopting quantitative and/or experimental methods. On the one hand, an analysis of large corpora of German data may very well yield constructions with verbs and two-way prepositions that do not fit the CG account, in particular examples such as the ones I have mentioned. But unless a sufficient amount of examples is found, there is no reason to alter the proposed cognitive generalization. The examples can be called non-prototypical, peripheral or metaphorical examples that do not or only partially display the features described for the core instantiations of constructions with two-way prepositions, and the problem would thus be deferred rather than solved. On the other hand, if one turns to experimental data, one can also imagine an outcome of experiments that is likely to support the cognitive account. For example, if one would want to test the probability that language users select one of the two image schemas provided by Langacker to represent DAT or ACC selection, it could very well be the case that most consultants provide the correct schema to most instances of the DAT construction and the correct one to most instances of the ACC construction. These image schemas are, after all, "imagic" or "figurative" (Langacker 1987: 39) approximations of the prototypical spatial instantiations of the two constructions at hand. But obviously, while such an experiment, if successful, would teach us something about the abilities of consultants to "visualize" linguistic constructions when they are asked to do so ("secondary intuition"), it is hard to see how the results could be interpreted as indicative of the idiomatic grammatical properties of the constructions, all the more so because psycholinguistic experiments usually tell us something about how the meanings of words are processed during language comprehension ("perception" and "interpretation") but little or nothing about language production (Williams 1992). It is therefore unclear how, given the present state of the language sciences, psycholinguistic experiments might contribute to a better understanding of case meaning and case marking from a language-specific point of view. Note, moreover, that quite a few psycholinguistic studies on semantic categories, polysemy, etc. tend to stress the need to distinguish language-specific semantic knowledge from general, encyclopedic knowledge (Nüse 1998; Grabowski and Miller 2000; see also, e.g., Stachowiak 1982; Nickels and Howard 2000 for neurolinguistic evidence along the same line).[14]

This brings us to a second possible explanation of why the problems with the CG account are of a qualitative rather than quantitative nature. From a point of view informed by ESL, the discussion of the cognitive characterization of German prepositional case marking constructions is likely to lead us directly to the heart of what may strike many linguists who would not call themselves cognitive linguists as problematic in many CL approaches. The problem is that Langacker's and Smith's alleged "correct generalizations" of case marking with two-way prepositions in German leave one puzzled as to what exactly the object of their accounts is, in much the same way as it was unclear whether Taylor's discussion of compositionality presented in Section 3.2 was genuinely concerned with compositionality in language or with something else. It is well known that most cognitive linguists argue against the view that language is a discrete entity, adhering to the holistic assumption of CL. Because language interacts with other "informational structures," i.e., with several other resources of "conceptual organization" (Geerarts and Cuyckens 2007: 3–5), including psychological, biological and neurological principles, environmental influences, and processing mechanisms, a linguistic system is not a "clearly delimited" object of research (Langacker 1999: 21). On the contrary, within the object of research, "designation" and "reference" in the broadest sense of the words, including encyclopedic knowledge and imagery, i.e., "ways of making sense, of imposing meaning" (Geerarts and Cuyckens 2007: 14), have pride of place. The main thrust of the CL view seems to be that certain abstractions and conceptual distinctions common in traditional linguistics are bound to lead to wrong conclusions or else to conclusions that are too vague and abstract to be worthy of serious interest (Langacker 1988a: 17). An example: the positing of a single highly abstract meaning for a word or a grammatical category that amounts to "an all-subsuming superschema . . . essentially void of meaning" (Langacker 1988b: 52). Cognitive linguists therefore purport that linguistics should be based on a "conceptualist semantics that properly accommodates construal" (Langacker 1995: 15).

This leads to the central question of what exactly a "linguistic sign" is taken to be in the CL paradigm compared to the SL paradigm. Obviously, the term "meaning" is understood in a much broader sense in the cognitive framework, given that "having meaning" and "imposing meaning" are ultimately tied together to form a single object of inquiry. By contrast, in SL it is precisely the distinction, in Jakobsonian terms (Jakobson 1971 [1959]: 264; see also Hjelmslev 1935–1937, VII [1]: 135), between what a language *can* convey (i.e., by "imposing" thought and making sense of things) and what it *must* convey (i.e., the lexicalization and grammaticalization of language-specific, systemic "signifiés") that is foundational to the entire paradigm. This distinction is the subject of the following section.

3.4. *The semiotic heart of the matter: The nature of the linguistic sign*

To conclude this article, I turn to the epistemological matter I consider to be the central semiotic point of divergence between SL and CL, namely, the nature of the "linguistic sign." More than anything else, the findings that have emerged from the above comparison between CG and ESL reveal the important similarities alongside the even more important differences between both paradigms regarding this issue.

In the first volume of his *Foundations of Cognitive Grammar*, Langacker (1987: 11) writes that he "embrace[s] the spirit of classic Saussurean diagrams":

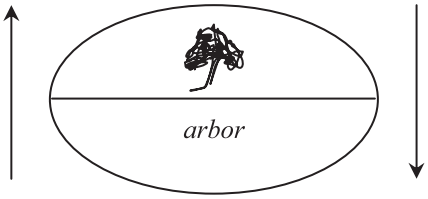

Figure 10. *Saussurean diagram of the linguistic sign in the* Cours de linguistique générale *(1916: 101 [99])*

This famous diagram can be found in the 1916 edition of Saussure's *Cours de linguistique générale* (1968 [1916]: 150). In Langacker's book, the Latin "signifiant" *arbor* is replaced with the English "phonological representation" *tree* and the two arrows have been omitted. In his article "Cognitive semantics and structural semantics," John Taylor in turn reproduces Langacker's slightly simplified diagram (now rendering the "signifiant" as /tri:/) and comments:

> Saussure's proposal was that the distinctively "linguistic" study of language had to treat language as a semiotic system. The proper object of linguistic inquiry is therefore the "linguistic sign," the symbolic association of a signifier (an "acoustic image") and a signified (a "concept"). Cognitive Grammar is strongly committed to the symbolic nature of language, and in this respect is profoundly Saussurian in spirit. (Taylor 1999: 18–19)

Taylor adds, however, that Saussure unduly restricted his study of the linguistic sign to lexical items, whereas CG also takes word formation and syntactic patterns into account. Moreover, Saussure's stress on the arbitrariness of linguistic signs, in particular of the "signifié" and the "signifiant" and their sign-internal relationship, is not endorsed by CG (see also Langacker 1987: 12), nor is his stress on the notion of "value" (Fr. "valeur") which is based on a radical interpretation of the importance of opposition (contrast, "difference") in the definition of the "signifié" and the "signifiant" (Taylor 1999: 19–22). Yet Taylor

devotes considerable energy to making clear that the simple and "austere" bipartite structure of the linguistic sign, as depicted in the *Cours*, is "perfectly adequate as it stands" from a CG point of view (Taylor 1999: 25). He goes on to point out that CG is, in fact, in keeping with Saussure, having plenty of reason to reject the significantly more complex representation of the linguistic sign put forward by authors like Raible and Koch, among others (see Koch 1996).

The question arises: What does the cognitive interpretation of Saussure's theory of the linguistic sign teach us about the basic semiotic assumptions of CG (and CL in general)? The question is particularly critical since Langacker, Taylor, and other cognitive linguists stress its importance for the so-called "symbolic thesis" of CG, stating that "linguistic expressions symbolize, or stand for, conceptualizations" (Taylor 2002: 20).

A first observation concerns "the Saussurean nature" of the diagram reproduced by Langacker and Taylor. It has been amply demonstrated in the literature that the posthumously published 1916 version of Saussure's *Cours* ought to be read with great caution. The editors (Ch. Bally, A. Sechehaye, and A. Riedlinger) made considerable changes to the original source texts for the *Cours*, including additions and cuts, rendering the 1916 version of the *Cours* an inaccurate reflection of Saussure's original thoughts in a number of respects (Jäger 1975, 2003). This caveat is particularly pertinent with regard to the explanations and diagrams relating to the "signe linguistique" in the *Cours* (see Willems 2005). Moreover, on careful inspection of the *Cours* it becomes clear that the well-known diagram as reproduced above (Figure 10) does not correspond to Saussure's claims about the nature of the linguistic sign in several crucial points. This becomes even more obvious if one turns to the *Sources manuscrites* of the *Cours* (edited by Godel 1957 and by Komatsu, see Saussure 1993–1997) and the critical edition of the *Cours* delivered by Engler (Saussure 1968 [1916]).

I will not provide a detailed discussion of why the 1916 text of the *Cours* is to be considered a distorted account of Saussure's theory of the "linguistic sign," nor will I try to demonstrate that a coherent theory can be reconstructed from the critical 1968 edition (with additional evidence to be found in the 1996 manuscript, published as Saussure 2002); I refer to Jäger (2003) and Willems (2005) for discussion. My main objective here is to show that cognitive grammarians have read Saussure in a particular way and that their "misreading" is actually informed by a perspective on the linguistic sign that differs significantly from the one advocated by Saussure.

The basic idea underlying the "symbolic thesis" of CG is that language is a means for relating sound and meaning, resulting in "bipolar" linguistic symbols or symbolic units (in current cognitive literature most often termed "form-meaning pairings"), which consequently consist of three elements, as shown in the diagram below (Taylor 2002: 21):

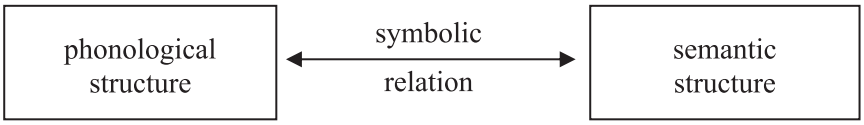

Figure 11. *The "symbolic thesis" of CG*

This characterization not only applies to lexical items but to grammar in general. Crucially, "semantic structure" or "meaning" comprises different aspects of conceptualization, including figure-ground alignment, construal (imagery), etc., and pragmatic aspects (meaning in relation to situational context); moreover, it is "broadly encyclopedic in scope" (Taylor 2002: 21; see also Langacker 1988a, 2007 and Geeraerts 1997: 8). I believe that it is specifically this broad perspective on "meaning" that explains why CG embraces the allegedly Saussurean diagram in Figure 10, since this diagram represents the linguistic unit as a combination of an expression and a schematic image of an object, namely, a tree. Obviously, this diagram conflates language-specific semantic knowledge and general encyclopedic knowledge. The diagram readily lends itself to an interpretation of the linguistic sign in terms of the place where world knowledge is associated ("paired") with a linguistic "form." In other words, the diagram seems to indicate that language can be studied, to all intents and purposes, as a means for relating sound representations with "experience," including conceptual organization, categorization, and even environmental influences. As such, it lends credence to the view that language is "a repository of world knowledge" (Geeraerts 1997: 8).

However, a close reading of the *Cours*, the 1916 text and particularly the student notes, reveals that Saussure's thought is not compatible with these claims. First of all, by drawing the diagram in Figure 10, Saussure does not refer to the relationship between the *signifié* and the *signifiant*, but to the relationship between "objects" (*objets*) and "names" (*noms*) (Saussure 1968 [1916]: 147, B and E; Saussure 1993–1997, *Troisième Cours*: 74). In other words, the diagram does not address the two levels united in the linguistic sign: the "object" is located "hors du sujet" (Saussure 1968 [1916]: 148, B) and the "name" (*nom* or *signe*, Saussure uses both terms interchangeably and comments that *signe* is undifferentiated between "image acoustique" and "concept + image acoustique," 1968 [1916]: 150, B) is the linguistic element attached to the object or the "idea" (*idée*) of that object (1968 [1916]: 149, F). However, Saussure lays particular stress on the necessity of considering both the "signifié" and the "signifiant" of a sign as immaterial, mental entities (1968 [1916]: 267).

Second, Saussure presents the diagram in Figure 10 not in order to make it conform to his own theory of the linguistic sign, but rather to disprove its validity and, finally, to reject it as inaccurate. More specifically, Saussure points out that a diagram uniting an object or the idea of an object and a "name" or

"sign" epitomizes what he calls a "naive method" of investigating linguistic signs:

> On a souvent eu tort de se figurer qu'il n'y a dans la langue qu'une nomenclature (arbre, feu, cheval, serpent). ‹Le contenu de la langue ramené à ses premiers traits.› C'est une méthode enfantine. Si nous l'adoptons pour un moment, nous verrons facilement en quoi consiste le signe linguistique et en quoi il ne consiste pas. On se place devant une série d'objets et une série de noms . . . (Saussure 1993–1997, *Troisième Cours*: 74)

Saussure takes pains to explain that the nature of the linguistic sign should not be understood in terms of an association or "pairing" of a concept and an expression:

> 1828 *Le rôle caractéristique* du langage *vis-à-vis de la pensée*, ce n'*est pas* d'être *un moyen phonique, mais* c'est de créer un milieu *intermédiaire entre la pensée et le son*, des *unités* d'une espèce particulière. (Saussure 1968 [1916]: 253, C, emphasis in the original)

Neither the conceptual level of thought or ideas (and their correlates: the "referents") nor the level of expression can be regarded as a basis or "substrate" of linguistic signs:

> Il n'y a aucun substratum quelconque aux ‹entités› linguistiques; ‹elles› ont la propriété d'exister de par leur différence . . . (Saussure 1974: 47, col. 2).
>
> S'il est une vérité *a priori*, et ne demandant rien d'autre que le bon sens pour s'établir, c'est que s'il y a des réalités psychologiques, et s'il y a des réalités phonologiques, aucune des deux séries séparées ne serait capable de donner un instant naissance au moindre fait linguistique. (Saussure 1974: 36, col. 1)

In other words, in Saussure's semiotics, associating the conceptual level and the level of expression with one another *presupposes* the linguistic sign rather than being its result:

> 1830 . . . *la pensée-son implique des divisions* | qui sont les unités finales de la linguistique. Son et pensée ne peuvent se combiner que par ces *unites*. (Saussure 1968 [1916]: 253, B; compare C and D; emphasis in the original)

This radically new perspective on the nature of the linguistic sign represents a major break from the linguistic thought of Saussure's predecessors and contemporaries.[15] However, in the 1916 text of the *Cours* this new perspective is distorted by diagrams such as the one in Figure 10 and a similar one with the drawing of a horse, or also by the diagram reproduced below, in which it looks as if parts of conceptual knowledge (A) are paired with expressions (B) (Saussure 1968 [1916]: 252, A):

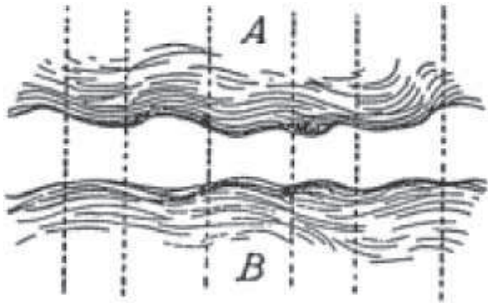

Figure 12. *Saussurean diagram of the "fait linguistique" in the* Cours de linguistique générale *(1916: 161 [155])*

From the student notes we know that the original diagram looked quite different:[16]

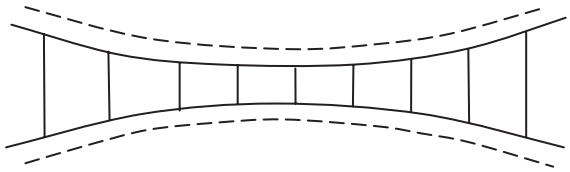

Figure 13. *Saussurean diagram of the "fait linguistique" in Engler's version of the* Cours de linguistique générale *(1968 [1916])*

An even more detailed and illuminating diagram is to be found in two student notes (Saussure 1993–1997, *Troisième Cours*: 138; Godel 1957: 214). For Saussure, the linguistic sign comes about in a creative act to which he consistently refers as the "fait linguistique" and which he characterizes as follows:

C'est entre deux ["idées" and "sons", KW] que le fait linguistique se passe:

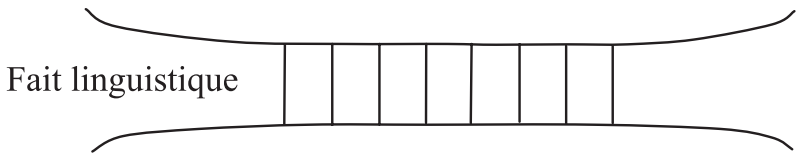

Figure 14. *Saussurean diagram of the "fait linguistique" in the* Troisième Cours *(1910–1911) and the* Sources manuscrites *(Godel 1957)*

The diagram in Figure 14 is particularly revealing. It shows that according to Saussure, linguistic signs are "des *unités* d'une espèce particulière," and that these signs make up a language, which is "un milieu *intermédiaire entre la pensée et le son*" (Saussure 1968 [1916]: 253, C, emphasis in the original).

From comments such as these, the basic tenet of Saussure's thought becomes clear. A linguistic sign is not a form-meaning pairing in the sense of a "conglomeration" of a psychological representation with a sound representation (see Jäger 1990: 75). On the contrary, it is on the basis of linguistic signs, which are historical constructs and hence "entities of a particular type," that the level of "ideas" and the level of "sounds" come to be associated with one another, not the other way round. This means, among other things, that encyclopedic knowledge cannot form the basis of meaningful symbolic linguistic units for Saussure. Not only is the "signifié" of a linguistic sign not a reflection of encyclopedic knowledge, but it is not even a "representation," because only objects can be represented (Jäger 1986: 10, 14). However, as a mental entity, a "signifié" may, of course, very well be "natural." It is to be expected that in large parts of the lexicon the make-up of "signifiés" corresponds to "real," "natural" properties of objects in the (conceived, projected) world; at any rate, there seems to be no passage in the *Cours* where Saussure would deny that or argue to the contrary. But this is not the point he is addressing when exploring the semiotic nature of the linguistic sign and, in particular, the difference between ideas and thought in general on the one hand and systemic semantic values on the other. To a certain extent, the question whether "signifiés" are "natural" or not is not particularly relevant to Saussure's discussion, because he focuses on the necessity to make a distinction between what is delimited *in* the language and demarcations that fall outside that domain and pertain to the realm of thought in general — and on the priority of the former over the latter in the definition of the linguistic sign.

This brief close reading of Saussure demonstrates that Langacker and Taylor have interpreted Saussure's famous diagram in Figure 9 in a way that was not intended by Saussure himself as far as the subject of "meaning" is concerned. From a semiotic perspective, the gist of the foregoing discussion is that to Saussure a language is a *system of signification*, i.e., of historically established relations between "signifiés," whereas to CG — and CL in general — language is a *system of designation*, or, better still, of *interpretation*. Both points of view refer, to be sure, to the nature of conceptualization and categorization through linguistic signs, but they do this in different ways. To Saussure, a "signifié" of a linguistic sign exists by virtue of being historically associated with a "signifiant," i.e., the linguistic sign is an indissoluble historical unit, the two "sides" of which can only be separated in hindsight, by a posterior act of analysis (Jäger 1990). This is why it is so important to stress that in Saussure's conception of a language linguistic signs form a historical system: the system of language is logically prior to the individual unit, and the unit is logically prior to the distinction between "signifiant" and "signifié." This is not to deny that a language consists of individual signs, which it does, but the main point is that an individual linguistic sign is inconceivable if its existence is only said to be

based on a pairing of an expression and a meaning without acknowledging the fact that it forms part of a system of linguistic signs that is the historical product of a multitude of previous acts of discourse and as such a prerequisite for conceptualization.

To CG, on the other hand, conceptualization is an interpretative cognitive activity in which "meanings" are associated with phonological sequences. The linguistic unit comes about in and through an interpretative act of pairing a phonological structure with a semantic structure. It is understandable why Langacker, Taylor, and their followers embrace the spirit of the allegedly "classic Saussurean diagram" in Figure 10, because as it stands, this diagram is compatible with the interpretative point of view underlying CG: "A language enables its speakers to effect an open-ended set of symbolic correspondences between meanings and phonological sequences" (Langacker 1988b: 49). In CG, meanings and expressions are ultimately the substrates which, as objects of interpretation, can be combined to produce linguistic signs. This difference between Saussure and CG is epitomized, in the work of cognitive linguists, in the explicit rejection of the (Saussurean and ESL) distinction between systemic semantic values and encyclopedic knowledge. However, this is tantamount to saying that CG is not Saussurean in spirit.

It also explains, at least partially, the tack taken by cognitive grammarians in their refutation of certain aspects of compositionality and the motivation of ACC or DAT with two-way prepositions in German discussed in Sections 3.2 and 3.3. In CG, the interpretation of expressions, described as cognitive construals, is invariably equated with that which these expressions mean, e.g., when the word *gun* in the complex expression *fake gun* is said to have its meaning altered because of the blending with the meaning of the modifier *fake* (a fake gun actually not being a gun at all), although unless *gun* retains its "signifié," it is difficult to see how the combination with *fake* could yield the specific meaning of the complex expression *fake gun*. Or when the interpretation of a preposition is said to "distort" the meaning of that preposition, although unless a preposition retains its "signifié" when combined with a noun, it is hard to see how a particular interpretation could bring about the variation in interpretation referred at. Or when the ACC case in German is said to have as its meaning an image-schematic construal in which a trajector's path reaches and enters the search domain of a preposition (as, e.g., in *hinter den Baum stellen* [park behind the tree]), although such a construal, which confounds the interpretation of a scene/frame with the function of a preposition and the function of a case that are combined with other lexical items to form a complex expression, presupposes a semantic value of the ACC case that is emphatically not identical with this construal (compare, e.g., the DAT case in *hinter den Wolken verschwinden* [disappear behind the clouds]) and hence not to be equated with a possibly prototypical interpretation.

4. Conclusions

In this article, I have attempted to shed light on some of the issues I consider foundational to a theory of language, and in particular to a theory of meaning, when comparing ESL and CG. I have examined, with a critical mindset and from a point of view informed by ESL, claims put forward in CG about the relation between expression and meaning, compositionality, the functional motivation of a grammatical category (case), and the nature of the linguistic sign. As I have pointed out at the beginning, my intention was not to establish the superiority of either one of the two paradigms at issue, but rather to clarify the basic semiotic assumptions of both paradigms by contrasting the analyses offered in CG and those offered in ESL. The present article fits into a broader trend of renewed interest in some of the basic tenets of SL as compared to current linguistic theories and models (cf. also the reassessment of SL with respect to the typological comparison of languages in Haspelmath 2010).

Even though only a handful of issues have been dealt with and many others ought to be addressed to arrive at a more comprehensive picture, the result of the comparison is that ESL and CG share certain basic ideas and beliefs about language and linguistics that clearly set them apart from the generative paradigm in linguistics and the analytic paradigm in the philosophy of language. These common traits include: the "isomorphism" of expression and content; the focus on systematicity in language as a whole, and not just syntax; the role of context-dependency in language use; the rejection of the idea that there is a straightforward direct relationship between language and external reality; and the rejection of the view that meaning can be defined in terms of logical truth conditions. However, there are also notable differences. To understand them it is necessary to go beyond the apparent differences in methodology between ESL and CG, which partially reflect the evolving standards of linguistic research, and to clarify the different semiotic concepts of the "linguistic sign" that underlie both approaches. Although the conviction apparently persists among cognitive linguists that CG is compatible with the Saussurean definition of the linguistic sign on which ESL is based, I have demonstrated that the notion of a bilateral linguistic sign is actually very different on both accounts.

The main differences between ESL and CG reflect the way in which the two paradigms make sense of conceptual distinctions. In ESL a conceptual distinction such as the distinction between language-specific semantic knowledge (semantic value, "signifié," G. "Bedeutung") and general encyclopedic knowledge ("reference," G. "Bezeichnung") is introduced for analytic purposes, being well aware of the fact that actual discourse always involves the activation of both kinds of knowledge at the same time (see Coseriu 1985). By contrast, in CG the distinction between "meaning" and "reference" is rejected as an invalid dichotomy, the holistic "usage-based" cognitive point of view

requiring a joint consideration of language-specific semantic knowledge and general encyclopedic knowledge. However, both ESL and CG run the risk of misjudging the status of conceptual distinctions. ESL, and SL in general, have a propensity to reify "semantic value" and "reference" as two separate objects (cf. Matthews 1997: 198–201) and to interpret the language-specific system (Fr. *langue*) as the static container of "signifiés" and the actual discourse (*parole*) as the realm where those "signifiés" are put into use and are combined with encyclopedic knowledge and relevant pragmatic, contextual aspects. Language-specific semantic knowledge and encyclopedic and pragmatic knowledge thus end up being regarded as mutually independent. This cannot be correct, as acknowledged by the most astute structuralists, not only because making a distinction between "signifié" and "reference" in linguistic analysis does not in any way entail that these concepts refer to mutually independent realms of knowledge, but also because *langue* is an abstraction from *parole* rather than the other way round.

The insight that linguistic systematicity emerges from the complex fabric of discourse, experience and cognition, has been recognized by cognitive linguists from the very beginning, marking an important step towards a more "realistic conception of language" (Langacker 1988a: 13) than was ever conceivable in the heyday of structuralism. However, CG and CL in general are faced with another problem. In practice, CG too presupposes a conceptual distinction between "signifié" and "reference" such as the one outlined above within the structuralist framework. How else can we understand that the grammar of a language is "an "inventory" of conventional units," where conventional units are to be understood as "cognitive routines" (Langacker 1988a: 11) or "symbolic resources" (1988a: 13), on the one hand, while language users bring "many kinds of knowledge and abilities to bear on the task of constructing and understanding a linguistic expression" (1988a: 14), on the other? These "many kinds of knowledge" include the "units provided by the grammar, general knowledge, knowledge of the immediate context, communicative objectives," and "extra-grammatical resources deployed by the language user" (1988a: 14–15). But if meaning is to be equated with conceptualization at large and if systemic language-specific and encyclopedic concepts are said to be identical, then it is unclear how a distinction can be made between the units provided by the grammar, on the one hand, and extra-grammatical general knowledge, knowledge of the immediate context, communicative aims, etc. on the other, without falling prey to circular reasoning. The ensuing epistemological problem is that the structuralist conceptual distinction between what a language *can* convey and what it *must* convey (see Section 3.3) crops up every time an attempt is made to determine the role of interpretation with regard to expressions in actual discourse (how they are "actually understood in context," Langacker 1988a: 14), because such expressions are already imbued with "signifiés" as

the input of the interpretation process, which has to be systemic in nature, structural and language-specific, and different from the broader general, encyclopedic and pragmatic knowledge and inferencing mechanisms. If this were not the case, it is difficult, even within the framework of CG, to make sense of the claim that the "compositional value" of an expression (i.e., the meaning of the lexical units in conjunction with the way they are combined) "underspecifies" the so-called "contextual value" of the expression (Langacker 1988a: 16; cf. also Evans 2006: 497 and Tyler 2006: 971–972). The claim that meaning underspecifies the "contextual value" of an expression not only entails that there is a difference in degree of observability between stored knowledge and actualized knowledge (Geeraerts 1999). It also implies that there is a difference in kind between language-specific semantic values emerging from systemic oppositions, on the one hand, and interpretations, on the other.[17] I hope to have shown that this is precisely the point that Saussure and several leading figures in ESL make, as well as that this point cannot easily be dispensed with.

The epistemological problem faced by CG is likely to be connected with the radical rejection of "objectivist" semantics. On the one hand, CG is right in claiming that a semantics of natural language based on a logical analysis of truth conditions is entirely inappropriate. Note that in this respect CG is, again, in full agreement with those structuralists that made a strong case against logicism and objectivism in linguistic semantics as early as the 1950s (e.g., Coseriu 2001 [1956]). On the other hand, the alternative approach proposed by CG, aptly termed "a subjectivist semantics" by Langacker in his earlier publications (Langacker 1988b: 48, 50, 63), seems to take CG to the other extreme. Interpretation is indeed subjective, but meaning is essentially intersubjective. Proponents of CG will perhaps argue that a cognitive notion such as "schematicity" solves the problem emerging from the above discussion (see Langacker 1988a: 14–23; Taylor 2002: 324; Tuggy 2007).[18] However, I do not think that this provides a satisfying answer to the problem, because it reduces the question of how language-specific and encyclopedic concepts interact with one another in actual discourse to a matter of degree between schematicity and "contentfulness" (Taylor 2002: 324), whereas the relationship between the two is more than just a difference in degree, it is also a difference in kind: it bears on what has come to be known, post-Saussure, as the relationship between linguistic units ("linguistic signs"), systematicity and opposition, i.e., the resource of language-specific knowledge and the way this knowledge is structured in the speakers' minds. "Parler d'idées générales avant d'avoir fait de la linguistique, c'est mettre la charrue devant les bœufs, mais il le faut bien!," Saussure (1968 [1916]: 248, B) observed. In other words, if we are to accept the claim that the cognitive conception of the linguistic sign is "Saussurean in spirit," then CG is left with the task of defining the linguistic sign in such a way as to enable linguists to conceive of the linguistic sign not only in terms of *subjec-*

tive (stored and actualized) interpretations but also in terms of the historical language-specific, systemic *intersubjective resources* in the speakers' minds, which are manifested in interpretation.

Notes

* I am grateful to Lena De Mol (Erfurt) for her comments on an earlier version of this article.

1. The term "isomorphism" is interpreted rather differently within modern functional and Cognitive Linguistics; see Section 3.1 for discussion.
2. It may be recalled that it was, again, Chomsky who laid the foundations for the holistic approach to meaning, arguing that "it is not at all clear that much will remain if we try to separate the purely linguistic components of what in informal usage or even in technical discussion we call "the meaning of [a] linguistic expression." I doubt that one can separate semantic representation from beliefs and knowledge about the world" (Chomsky 1979: 142). See also Nunberg (1979).
3. On the one occasion Hjelmslev uses the term "isomorphic," it refers to the non-arbitrary, "iconic" character of "symbols" (Hjelmslev 1961 [1943]: § 21).
4. See, e.g., Cassirer (1994 [1923]: 260): "Die Wörter der Sprache sind nicht sowohl die Wiedergabe feststehender Bestimmtheiten der Natur und der Vorstellungswelt, als sie vielmehr Richtungen und Richtlinien des Bestimmens selbst bezeichnen." (The words of a language do not represent fixed determinations to be found in nature or our mental, "projected" world, they rather represent the directions and guidelines for such determinations.)
5. I will not be concerned here with the obvious non-compositional nature of idioms, a fact that is universally acknowledged (Krifka 1999; Bartsch 2002).
6. It may be useful to bear in mind that Coseriu actually makes a distinction between three levels of meaning, namely: (1) systemic "signifiés" on the level of a particular language, (2) "designation" on the universal level of language in general, and (iii) "sense" (Lat. *sensus*) on the level of individual discourse (Coseriu 2001 [1976]: 333–334 and 1985: xxx–xxxiv). However, in order not to complicate the discussion, I will assume a somewhat simplified distinction between (1) "signifiés" or semantic values on the level of a particular language and (2) reference on a non-language-specific level, which is taken to include both the designation of the extra-linguistic reality and the interpretative sense in acts of discourse.
7. For the sake of brevity, I will not discuss the problematic distinction between vagueness and polysemy also touched upon by Taylor. Suffice it to say that the criteria underlying this distinction are often dubious, in CL as well as other approaches to linguistic semantics, see Geeraerts (1993, 1997: 18) and Kleiber (2006).
8. Note that the issue is not definitively resolved. Recently, a number of cognitive linguists have again argued for a distinction between purely linguistic knowledge and encyclopedic knowledge, see, e.g., Evans (2006: 496). However, like Taylor, Evans rejects the view that words have determinate semantic values, arguing that the semantic contribution of a word is "sensitive to and dependent on the context which it, in part, gives rise to" (Evans 2006: 492).
9. I will not reconsider here the problems associated with essentially taxonomic, referential componential analyses along the lines of Goodenough (1956), Lounsbury (1964), Katz and Fodor (1963), Lehrer (1974) etc.; see Geckeler (1971) and Coseriu and Geckeler (1974) for some discussion. More revealing are the problems with which the European tradition of structural semantics has been confronted, although it should be noted that the taxonomic approach has been well-established in Europe as well, cf. Lyons (1977) and Cruse (1986).

10. Note that, even if it is assumed that [LOWER THAN] is part of the meaning of *under*, making it possible for the interpretation to "distort" the meaning, the conclusion that interpretation renders invalid the hypothesis that the word has a determinate meaning would still be unconvincing. It seems far more likely that something about the assumed semantic features of the word does not hold, than that the word cannot have such a determinate meaning.
11. This is what functional and cognitive linguists currently understand by the term "isomorphism," cf. Haiman (1980b). See however the discussion in Section 3.1 above.
12. "The "search domain (SD)" is thus defined as the area/location to which a locational predication (like a preposition) confines its trajector" (Smith 1995: 295).
13. Smith (1995) can be read as an attempt to come to terms with problematic phenomena such as these. Smith (1995: 294, 319) argues that the general cognitive motivation for ACC or DAT with two-way prepositions in German can be couched in the following general conceptual terms: "change > ACC," "no change > DAT." The basic hypothesis is that with the ACC different aspects of a path are being highlighted (spatially as well as temporally), whereas DAT instantiates endpoint focus or profile restriction. For a discussion of Smith's account, see Willems (in press).
14. It is beyond the scope of this article to determine how much progress has been made in the psycholinguistic analysis of meaning in language production during the last decades, but it seems safe to say that much of the criticism by, e.g., Dahl and Linell (1979), remains valid. In this connection, the following passage is still worth quoting: "The meaning of the sentence as an abstract object (its "structural meaning") consists of semantic conditions that are somehow tied to the linguistic expression. The specific utterance, on the other hand, is assigned a situational interpretation which normally extends far beyond the structural meaning of the linguistic expression used; it is also crucially dependent on the non-verbal communication of the speaker, other properties of the communicative situation, the speaker's and the listener's background knowledge of each other and the rest of the world, etc." (Dahl and Linell 1979: 440).
15. Jäger (1986: 15–16), who is among the first Saussure-specialists to have pinpointed this central issue in Saussure's theory of the linguistic sign, rightly emphasizes that Saussure's view entails the "logische Vorrangigkeit des synthetischen Zeichenganzen vor seinen Teilen" [logical priority of the synthetic sign unity over the parts of the sign]. The two parts of the linguistic sign are identifiable only "ex post actu," i.e., after breaking down the synthetic unity by virtue of which the sign associates expression and meaning; see also Jäger (1978, 1990, 2003).
16. See Willems (2005) for an extensive discussion of the most important differences between Figure 12 and Figure 13.
17. Notwithstanding Nunberg's attempt to show that "meanings-in-the-language" actually do not exist and that there are only "uses" connected by a network of referring functions (Nunberg 1979: 177–179). A similar but cognitive approach to the study of linguistic meaning can be found in Evans (2006).
18. Cf. also Langacker's (1987: 158–161) defence of "encyclopedic semantics" in terms of the "centrality" of the specifications in the encyclopedic characterization of expressions, which the author correlates with the extent to which specifications are conventional, generic, intrinsic, and characteristic.

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