

MIKOŁAJ DOMARADZKI

**COGNITIVE CRITIQUE
OF GENERATIVE GRAMMAR**

When confronting the generative approach to language with the cognitive one, it is worth bearing in mind that these divergent theories of language reflect equally disparate life views. Arguably, the most fundamental difference between the two concerns the role of the cognitive agent, for while the former seeks to present an account of language that abstracts from it, the latter renders the subject its proper point of departure, assuming that neither language nor any knowledge of it can be considered independently of human cognitive mechanisms, these making our experience of the world coalesce with its conceptualization. A consequence of this constructivist assumption for language description is that the cognitive view departs from truth-conditional and rule-based account of language in favor of an account which makes allowances for the interface of grammar and meaning. Furthermore, as the generative and the cognitive approach to language disagree with regard to what is universal – (deep) structure or (cognitive) experience – the two theories of language have recourse to quite distinct methodologies: while in the case of the generative enterprise, concerned primarily with the abstract form of linguistic expressions, logic and mathematics are the ideal, in the case of cognitive linguistics, interested chiefly in the concrete conceptual content, it is biology.

As structuralists, *ex definitione*, concern themselves primarily with the structure or form of linguistic expressions, they accordingly assume that all linguistic signs are

structured internally (due to the nature of their morphemes, stems, roots, endings etc.) and externally (due to the interconnections or interrelations between particular structures). This is clear in de Saussure's assertion that *'dans un état de langue, tout repose sur des rapports'* (1967:166). At any rate, then, it is the structure of linguistic signs, 'their linguistic form', that is to render every expression meaningful and all communication possible. Without complete disregard for the paramount importance of the structure of linguistic expressions, cognitive linguists protest only against overestimating the importance of structure considered in complete isolation from human conceptualization. Hence, cognitive linguists view language, similarly to all human perceptual knowledge, as a product of human cognitive system and assume that neither colors nor grammatical categorizations are mind-independent. In the light of the fact that it is human cognitive system that produces not only 'hues' but also 'nouns' and 'verbs'¹, cognitive linguists argue that no structure can have any meaning, unless it is taken with reference to the human bodily experience from which it originates. As a result, it is not so much the structure of linguistic expressions, but rather their meaning that constitutes the basis of cognitive theory of language. Meaning is characterized here as imaginative and embodied, while language is defined as an experiential construct. Now, if structuralism does not promote a sole concentration on the structure of language, then it is the generative approach that carries the structuralist assumption to extreme, due to its idiosyncratic account of language which pivots on the autonomy of grammar, i.e., its independence of meaning (cf. e.g. Chomsky 1957:17, 93 sqq., 101, 106 and 1965:5, 15 sqq.).

Chomsky characterizes grammar as *'a device of some sort for producing the sentences of the language under analysis'* (1957:11, cf. also 85). Consequently, a sentence is viewed as a sequence of symbols, language as a set of such sequences and grammar as a set of rules for generating language understood in this way (cf. e.g. *ibid.* 13, and 1965:3, 16 sqq.). The outcome of this approach is that whenever a linguistic phenomenon does not comply with what has been characterized as the syntax, then it is labeled as contingent or idiosyncratic and, consequently, becomes relegated to the lexicon which is considered to be of minor importance due to its unordered character (cf. e.g. Chomsky 1965:87). It is the syntax that is deemed important, as it guarantees regularity and predictability. That the syntax is autonomous means that it is fully self-sufficient inasmuch as it is the sole productive component of language faculty. As Chomsky's assumption is that it is the syntax alone that generates the structures of language, he asserts that *'grammar is best formulated as a self-contained study independent of semantics'* (1957:106) and praises the idea of *'separating the lexicon from the system of rewriting rules'* (1965:86). The assumption of the autonomy of syntax from semantics stems from the idea of an algorithmic system, i.e. a system which is unaffected by any semantic interpretation of symbols. As any contribution from outside the syntax would threaten its autonomous and generative nature, generative grammar makes lexicon a store for items which, being irregular and unpredictable, must, therefore, be listed individually.

Cognitive linguistics rejects the structuralist sharp differentiation between the structure, i.e., the linguistic form, on the one hand, and the conceptual content, on the

¹ As the founder of modern linguistics put it: *'la distinction des mots en substantifs, verbes, adjectifs etc., n'est pas une réalité linguistique indéniable'* (Saussure 1967:153).

other, by viewing syntax, morphology, lexicon and grammar as forming a continuum. Thus, in lieu of the autonomy of syntax, cognitive linguistics postulates ‘the inseparability of syntax and semantics’ (Langacker 1987:1). The continuum thesis implies not only that syntax must be integrated with semantics, but also that for cognitive linguists all grammatical divisions are purely conventional: they have been established for pragmatic reasons, as in order to make a thorough analysis a linguist must impose some artificial boundaries on the object of his investigation. This can clearly be observed in Langacker who defines lexicon as ‘the set of fixed expressions in a language, irrespective of size and regularity’ (1991:45), since such an account renders it possible for him to incorporate into lexicon items as different as ‘morphemes, stems, words, compounds, phrases, and even longer expressions’ (ibid.). If Langacker obscures, thereby, the dichotomy between grammar and lexicon by positing a continuum between the two, grammar becomes on his view anything but generative. Hence, while generative grammar views grammar as ‘a device of some sort for producing the sentences of the language under analysis’, Langacker views grammar as symbolic, not autonomous (1991b:289) and, accordingly, defines it (1991:47) as ‘a catalog of symbolic resources available to the speaker’, explaining that the term ‘morphology’ is reserved for constructions at ‘the word level or below’, while the term ‘syntax’ – for constructions that are ‘larger than a word’ (ibid. 46 cf. also 1991b:289). The most important conclusion is that the cognitive, non-generative, account of grammar entails being far more cautious with regard to differentiating between syntax and lexicon, on the one hand, or syntax and morphology, on the other, in view of the fact that the boundaries between those components are inherently fuzzy. Furthermore, neither syntax nor language is viewed as autonomous, for while language is seen as a reflection of human perceptual apparatus, studying it becomes tantamount to studying human cognitive processes.

As already observed, generative linguistics, on the other hand, characterizes language as an algorithmic system which uses symbols irrespective of their meanings and protests against any identifications of the notion ‘grammatical’ with ‘meaningful’ (Chomsky 1957:15, 106). Language becomes a set of uninterpreted sentences and grammar – a set of rewriting rules that recursively generate all the well-formed expressions of a given natural language. Accordingly, with regard to syntax, the goal of generative linguistics becomes to establish a set of objective rules (e.g. transformation from active to passive) that will render it possible to generate grammatically correct sentences and with regard to lexicon, the goal becomes to establish a set of objective features (e.g. ‘animate’ vs. ‘inanimate’) that will render it possible correctly to insert given words into the grammatical structure. While generative grammar pivots on the assumption that objective syntax rules and objective semantic features which together generate language are of mental nature (as they constitute the linguistic knowledge that humans possess innately), cognitive linguistics maintains that the autonomy of syntax thesis is not an empirical result, but rather an *a priori* assumption on the base of which the generative approach reduces language to few prototypical phenomena.

Consequently, grammaticalness, on cognitive view, can neither be deduced from nor reduced to the structural correctness of a given construction. Depending on the context, one is, for instance, perfectly entitled to pluralize nouns that normally take no plural (e.g. *Various countries have various polices*). The traditional view holds that only count

nouns pluralize and take the indefinite article, while mass nouns do neither. Langacker proposes (1987:203 sqq.) to view the count/mass division as having a *conceptual* basis which stipulates whether or not a given noun is bounded. The assumption that the division of nouns into count and mass has a conceptual rather than structural basis enables Langacker to explain why numerous nouns occur in both categories (*milk/a milk*) and why it is possible to impose bounding (e.g. a quantifier) on a homogenous mass in order to make it limited (*some milk*). Langacker's view suggestively clarifies why many mass nouns can function as count nouns, since it points to the possibility of bounding them and demonstrates that the division of nouns into count and mass is an arbitrary dichotomy whose source again is rather conceptual than structural. Langacker's observations lead to the conclusion that grammaticalness, like everything in language, is a matter of degree, since it is determined by the user's coding needs. With the situation being as it is, we can say that if the idea of the autonomous syntax triggered off the demand that language users be capable of assessing the grammaticalness of a sentence on the base of structure alone, i.e., without any reference to the context and semantics, then cognitive linguistics postulates that grammaticalness be recognized as gradable due to its being significantly conditioned by the context and semantics. Langacker gives (ibid. 37) an interesting example by showing how the acceptability of passive sentences changes with regard to not only the form but also the content of given sentences. His point is that cognitive linguistics expects only the prototypical examples to conform fully to the syntactic rules, the rationale being that grammaticalness cannot be assessed by means of formal (structural) criteria alone, as conceptual (semantic) criteria prove to be indispensable in the light of the obvious fact that meaning and context do influence the structure.

Conceptual Basis of Language

From these introductory remarks, it should be clear that one of the most fundamental assumptions made by cognitive linguists is that meaning is identical with conceptualization and that grammar interfaces with meaning. In the long run, it is this assumption that renders the cognitive and the generative account of language mutually exclusive. The equation of meaning with conceptualization implies that on cognitive account any description of language must be supplemented with a description of human cognitive processes and that is why cognitive analyses view meaning in terms of imagery and not in terms of formal logic. The postulate that meaning and grammar interface implies that cognitive linguistics assumes that the speaker makes a decision as to which details of his scene construal and to what extent he wishes to single out.

Langacker argues that the grammar of natural language can structure a given situation in various ways and, in consequence, he introduces the notion of imagery which is characterized as '*our ability to construe a conceived situation in many different ways*' (1987:47 cf. also 1991:4). Inasmuch as imagery renders it possible for language users to view the same state of affairs in various ways, cognitive linguistics embraces, thereby, the possibility of establishing contradictory modes of understanding a situation.

Hence, contrary to generative grammar, cognitive linguistics can explain why synonymous sentences may be logically equivalent, yet conceptually distinct (cf. e.g. Langacker 1987:39, 51 and 1991:4). Let us consider such scene construal options as *Peter and I did it* versus *I and Peter did it*. The conceptual content is here the same, but the meaning is different. The two sentences are by no means symmetrical, for the former gives more prominence to *Peter*, while the latter – to *I*. In the light of this, one might say that extensionality is something extraordinary in natural languages and that cognitive grammar demonstrates that the syntax of natural language *is* dependent on what one wishes to convey. Not surprisingly, therefore, does the semantics of natural languages prove to be more complex than the rigid and inevitably simplistic rules of the formal approach: it is the language user who chooses one of the constructions and although according to formal logic, these two constructions are equipollent, the semantics of natural languages must not ignore the conceptual freedom of language users to construe the same state of affairs in alternate ways.

Furthermore, the cognitive account of grammar rejects the idea that one structure is to be derived from another: if, as it is assumed, every grammatical construction reflects a certain perspective, then it really makes no sense to insist that one structure somehow results in another. Let us give another example. It is common knowledge that transformations have been characterized as rules which change a given input – or the so called deep structure – in such a manner that it results in a surface structure, i.e., the output. As Chomsky explains:

The deep structure that expresses the meaning is common to all languages, (...), being a simple reflection of the thought of forms. The transformational rules that convert deep to surface structure may differ from language to language (1966:35).

While in *Syntactic structure*, the goal was to derive all sentences from the kernel sentences (1957:61 sqq., 106 sqq.), in *Aspects of the Theory of Syntax* and afterwards, the goal became to derive all surface structures from the underlying abstract deep structures (1965:24, 118 and 1966:33, 38). With regard to the autonomy of syntax hypothesis, it should be pointed out that it is the syntax of a linguistic expression that is characterized as its deep structure, whereas its construction is referred to as its surface structure (Chomsky 1966:47). A prime example of such a construction-generating device is a transformation that turns active sentences into passive ones. In cognitive linguistics, two sentences such as *Peter killed Paul* and *Paul was killed by Peter* are not reducible to a transformation which makes the former sentence result in the latter. On cognitive account, these two sentences describe the same event, albeit from various perspectives, and neither is to be derived from the other. Thus, cognitive linguistics seeks no deep structure underlying the two structures and opts for their semantic account rather than a configurational one (cf. Langacker 1999:150). Inasmuch as a given scene construal reflects different processes of focal adjustments, Langacker distinguishes as various dimensions of imagery as perspective, prominence, scope, or schematicity and argues that they are constitutive not only of general cognition but of linguistic conceptualization, too. Although, due to the necessary limitations of the paper, it is impossible to characterize them all, it follows that grammar seems, on this approach, better understood when characterized as imagistic rather than generative.

Langacker shows that the fundamental grammatical relations such as subject and direct object can be viewed not only in terms of traditional semantic roles (agent and patient), but also in terms of the trajector and landmark distinction. The notions of trajector and landmark allow to understand the semantics of grammatical structures without recourse to transformations². From this perspective, the choice between the active and passive voice is a choice between the subject and object as being trajector or landmark, respectively. If, thus, on cognitive view, transformation from active to passive is a shift in prominence (since the choice of a clause subject is conditioned by the importance of the elements involved in a situation), then active and passive sentences can be characterized as distinct cognitive perspectives from which the speaker chooses to construe the situation (the choice of a perspective being naturally conditioned by what attracts his attention), while the figure-ground organization and scanning operations can be said to underlie every linguistic construction. Consequently, the cognitive account of language totally rejects Chomsky's approach, for the latter pivots on idealizations that purposefully abstract from such '*grammatically irrelevant conditions*' as e.g. '*shifts of attention and interests*' (1965:3). The trajector/landmark division allows Langacker to characterize the subject not only in syntactic, but also in semantic and pragmatic terms. If we consider a sentence such as *A red Porsche passed quickly me and Jane*, the choice of *Porsche* as the trajector (subject) from among other participants (*me* and *Jane*) in this situation can be explained in such a way that an object moving against a stable setting is more likely to be chosen as the figure on grounds as natural as the organization of human cognitive processes. Obviously, the choice of *me* and *Jane* is possible depending on the speaker's desire to construe the scene in this way, but the point, as Ungerer and Schmid observe (1996:210), is that cognitive grammar demonstrates that clause patterns should not be analyzed in isolation, but rather against their cognitive background so that allowances are made for the possibility of profiling (or perspectivizing) the participants of a given situation. In conclusion, one might observe that if generative grammar assumes that beneath the veneer of the variety of languages one is obliged to find a universal syntax (cf. e.g. Chomsky 1957:11, 14 and 1965:6, 25, 30, 35, 117), then cognitive linguistics does not assume that the grammar of a given language has the status of a surface structure which must be transcended so as to reveal some deeper and more fundamental grammar. The grammar of *every* natural language is seen as imagistic and meaning motivated, consequently upon which, it is precisely the *particular* grammar of a given language that is the proper field of investigation³.

At this point, it has to be emphasized that due to the necessary limitations of the article, the purpose of the paper is to present only *some* of the criticism that cognitive linguistics has leveled against the generative enterprise. The project of cognitive linguistics is, naturally, a reaction to quite a profound disappointment with the Chomskyan approach to language, but this presentation will confine itself only to some linguistic phenomena that demonstrate the unfeasibility of reducing language studies to

² That is why Langacker says (1987:235) that the notion of trajector is semantic rather than syntactic.

³ On Langacker's view the conventional imagery (first and foremost the lexicon and grammar) of every language are always language-specific. Thus, if in some languages there are definite and indefinite articles, while in some other there are only definite ones or even no articles at all, then the grammatical constructions '*differ semantically even though they refer to the same experience, for they employ different images to structure the same basic conceptual content*' (1987:47).

syntax analyses. Moreover, we will focus solely on some of those alternatives to generative grammar that have been proposed by the two founders of Cognitive Linguistics, namely George Lakoff and Ronald Langacker. If we say that the former initiated cognitive semantics and the latter cognitive grammar, then the indispensability of incorporating semantic and pragmatic analyses into language studies was demonstrated by those scholars while investigating, among others, metaphors, constructions (polymorphemic linguistic signs), motivation, iconicity and performative functions of speech acts (the illocutionary forces of grammatical constructions). Although, all the phenomena enumerated will be dealt with here very briefly (perhaps even to the point of superficiality), the goal is exclusively to show that cognitive linguistics has refuted and overcome the autonomy of syntax dogma, by substituting it with the postulate that grammar and meaning interface.

Problems of Metaphors

Generative grammar disregards figurative language and identifies creativity with fixed syntactic rules which produce the so called output. Cognitive linguistics, on the other hand, recognizes creativity as 1) the omnipresence of figurative language and as 2) the natural proclivity to ignore purely conventional grammatical rules. Let us begin with figurative language and then proceed to the conventionality of grammar.

For cognitive linguistics, our mental life and, consequently, our linguistic system pivot on metaphorical understanding of our experience. Metaphor is characterized here as a projection of one conceptual domain onto other. Lakoff and Johnson demonstrated (1980) that we transfer our experience of familiar physical objects and concrete events and metaphorically project it onto more abstract realms, so that we understand one domain (the target domain) in terms of another (the source domain). Hence, more abstract cognitive processing is viewed as evolutionarily developed from more basic sensory and motor perception. For instance, when analyzing the metaphor 'More is Up', the scholars showed that our perception of increasing quantity correlates with our perception of upwards motion. Thus, having observed that the more liquid one pours into a container, the higher the surface of the liquid rises, it is more than natural for us to transfer this correlation from the physical domain and map it metaphorically onto more abstract domains so that, for instance, an increase in quantity becomes an increase in quality (Lakoff & Johnson 1980:16 sqq.). Bearing in mind that the projection of one domain onto another is automatic, one might metaphorically say that metaphors provide *bridges* between different domains.

Lakoff and Johnson maintain that *all* abstract concepts stem from the human bodily experience, for we construct them analogously to physical concepts. To give yet another example, we can observe that we transfer our everyday conception of space to describe abstract geographical relations and land areas. This projection is based on a very basic kinesthetic image-schematic structure. An image schema is a simple structure which is ingrained in everyday human bodily experience and becomes meaningful precisely due to its embodiment. In our example, the kinesthetic image-schematic structure is the

container schema: since many a thing can be understood in terms of a container that contrasts an interior with an exterior, we conceptualize the surrounding world by means of this image schema and metaphorically understand geographical places such as countries or cities in terms of containers, *in* and *out* of which we can move. As matter of fact, we view the entire world in terms of a container, when we differentiate between this world *in* which we find ourselves at present and the other (future or past) world which is located either *outside* this one⁴ or *above* it⁵. Lakoff and Johnson (1980:29 and 1999:497) argue that every grammatical structure is rooted (or as they put it: embodied) in a preconceptual structure that renders the articulation of the human bodily experience possible. Their findings culminate in the thesis that for cognitive semantics concepts are embodied and metaphorical in nature. The embodiment of concepts means that they are founded on human bodily orientations and interactions, whereas the postulate that concepts are of metaphorical nature means that abstract concepts are founded on metaphorical extensions or projections from concepts that are directly embodied.

Summing up, one should put it in no uncertain terms that contrary to the assumptions made by generative semantics, metaphor is not just some negligible stylistic or rhetorical extra, as it, in fact, underlies our mental life. Naturally, metaphors such as *purgata auris* had been known long before *Metaphors We Live by* was published. Nonetheless, Lakoff and Johnson deserve full credit for conducting analyses of language that would hardly be possible, had they been based on abstract, logical form alone. Several important observations must be made here. Firstly, metaphorical extensions cannot be reduced to some derivational rules. Secondly, metaphoric models can hardly be viewed as accurate representations of the objective world, since they are products of human cognitive apparatus. With reference to the latter observation, one should perhaps add that the generative disregard for figurative language was triggered off not only by the sole concentration on clause patterns, but also by the assumption that only literal meaning could correspond to reality and, thereby, be true or false. Figurative meaning, being devoid of any meaning that could represent the world, was excluded from the realm of semantics, precisely due to its inability to correctly mirror entities in the external world. With the situation being as it is, it goes without saying that contrary to the generative stream cognitive linguistics does not resort to truth-conditional semantics, but in lieu of such dubious criteria as adequacy or correspondence, metaphors are characterized in terms of their usefulness or aptness. Thus, cognitive linguistics joins contemporary pragmatism in renouncing all claims to a linguistic description that would be true in any absolute sense. On cognitive account, linguistic knowledge, like any knowledge is a construct or invention rather than a reflection or representation. Finally, it has to be accentuated that the mappings of physical domains onto abstract ones can hardly be labeled as contingent correspondences, since they are rather '*highly motivated links between parallel or analogous areas of physical and internal sensation*' (Sweetser, 1990:45). This brings us to the issue of the symbolic nature of language, a point where cognitive linguistics strongly departs from the structuralist tradition.

⁴ Cf. e.g. the German opposition between *das Diesseits* and *das Jenseits*.

⁵ Cf. e.g. the old Greek opposition between οὐρανὸς and ἅδης which culminates in the religious conceptualization based on the heaven and hell opposition. One could, presumably, maintain that if Platonism can be explained in terms of 'World is a Container' metaphor and 'Quality is Up' metaphor, then it can be characterized as an experientially based metaphor.

When cognitive linguistics investigates various motivating factors in the choice of linguistic forms it does not question the conventionality of linguistic expressions. Cognitive linguistics does agree with de Saussure on the arbitrariness of the link between words and concepts. The association of the sequences of sounds in words such as *container* or *country* with what these words refer to is arbitrary. Nevertheless, it is hardly arbitrary that certain physical features of *containers* are mapped onto *countries* so that just as something can be *in[side]* or *out[side]* of a container, so somebody can live *in[side]* or *out[side]* a country. The conceptual metaphor which underlies this mapping provides an explanation why countries are conceptualized as containers and not as, say, animals – as it is frequently in the case of emotions. In the context of cognitive critique of the generative approach, two observations need to be made. Firstly, the existence of such metaphorical mappings makes it possible for cognitive linguistics to view many a linguistic expression as highly motivated rather than completely arbitrary. Secondly, the obvious pervasiveness of such *conceptual* universals makes cognitive semantics protest against reducing language studies to a quest for formal or substantive universals, as it happens in the generative stream (cf. e.g. Chomsky 1965:28 sqq.). Let us explain the latter point on the example of emotions.

Apart from the obvious examples that can be taken from European languages, the Arabic language offers reliable testimony that emotions are metaphorically viewed as wild animals, since, for instance, the verb *ṣabara* means ‘bind’, ‘fetter’ and ‘shackle’, on the one hand, and ‘be patient’, ‘have patience’ on the other. Inasmuch as it is equally common for emotions to be metaphorically presented as fire, a very interesting linguistic observation can be made here. If we consider that the Latin *ardeo* means ‘burn’, ‘be on fire’ or ‘be ablaze’, then it comes as no surprise that many a European language follows the metaphorical mapping and, consequently, just as *ardeo* is easily used of feelings such as love, so, for instance, the Danish *brænde* can occur in phrases such as *brænde af begær*, which means ‘burn with desire’ or *brænde efter* at which means ‘be dying to’. If, however, also the Arabic *taḥarraqa* means ‘burn’, ‘be aflame’, ‘be consumed by fire’ and ‘be consumed by an emotion’, then one might venture to purport that at least certain metaphorical mappings can be characterized as *conceptual* universals. This becomes of vital importance, for, as already observed, while generative grammar reduces language studies to a quest for substantive and formal universals, cognitive linguistics suggests the possibility of universals that are based on the generally human bodily experience⁶.

⁶ Due to the paramount importance of the issue of conceptual metaphors, we cannot refrain from quoting three more interesting examples. The metaphor ‘Mind is a Container’ is to be found in Latin where *animus* is metaphorically viewed as a container in which one can store ideas and intentions. Hence, the famous query: ‘*quae nunc animo sententia surgit?*’. As one can say ‘*habeo (est mihi) in animo*’, which means literally ‘I have it in my mind’, i.e., ‘I intend to’, it comes as no surprise that the same metaphor is to be found in French, German and Danish. Thus, the French ‘*se mettre quelque chose dans l’esprit*’ means literally ‘put something in one’s mind’, i.e., ‘remember’, while ‘*cela m’est sorti de l’esprit*’ means literally ‘it has left (gone out of) my mind’, i.e., ‘it slipped my mind’. Likewise in German and Danish. You can *have something in mind* in German (*etwas im Sinne haben*) and in Danish (*have noget i sinde*), in the sense that *you intend it* and, interestingly enough, in Danish you can also *take it into your head to do something* (*få i sinde at gøre noget*). Subsequently, if we take the ‘Argument is Journey’ metaphor, then in Danish we have the expression *gå ind på* which means ‘go into’ or ‘enter’ and at the same time ‘agree’, ‘accept’. In Greek, the verb *σὺγκωρῶ* means ‘go together with’, ‘meet’ and ‘agree’ and, eventually in Arabic, the root *w-f-q* among others refers to such activities as ‘bring to agreement’, ‘reconcile’ (II), ‘to correspond’, ‘harmonize’, ‘meet’, ‘encounter’ (III) and finally ‘agree’ (VIII). The last

All in all, cognitive linguistics very often regards the relationship between words and concepts as an extension that is *well-motivated* and not random. Many grammatical constructions are, thus, not arbitrary, but embodied, i.e., reflecting the basic human bodily experience. However, metaphors are by no means the only linguistic expressions that cognitive linguistics characterizes as motivated. Cognitive linguists argue that also polymorphemic linguistic signs should be seen as nonarbitrary. These are considered to be motivated and analyzable, for notwithstanding their conventional form, they do remain motivated by their constituents.

Problems of Morphology

Cognitive linguistic views grammatical constructions as holistic, inasmuch as it considers the meaning of the whole construction to be motivated by the meanings of its components, but at the same time rejects the idea that the meaning of a grammatical construction could be computed from the meanings of its components. This postulate of cognitive linguistics is of utmost importance, for it suggests that lexical constructions cannot always be rule-derived in the generative fashion. A classic example is given by Langacker (1987:15) who analyzes constructions such as *waiter* which instantiate the V + *-er* derivational pattern. Now, if *waiter* is simply to be derived from the V + *-er* rule, than Langacker asks why its meaning is hardly reducible to ‘something or somebody that waits’. The scholar argues that the view according to which a form either is or is not derived by the rule is simplistic, since one should rather say that *waiter*

does instantiate the V + *-er* pattern, i.e., that its organization and meaning are determined in large measure by the rule, even though it has properties above and beyond those that the rule specifies (ibid, cf. also 1999:92).

Langacker has coined the term *exclusionary fallacy* to describe the erroneous assumption that one interpretation of a linguistic phenomenon precludes another. Thus, he explains that in order to correctly analyze constructions such as *waiter* one must not be unwilling to say that the construction *is* derived by the V + *-er* rule, but at the same time it *does* have a meaning that is not reducible to its components. The outcome is that a cognitive analysis perceives both accounts as complementary and not mutually exclusive. With constructions such as *waiter*, we can clearly observe that although motivated, the meaning of a grammatical construction cannot always be computed from the meanings of its parts. Langacker’s favorite explanatory metaphor is that component structures cannot be characterized as ‘building blocks’, in which the meaning of the

potential conceptual universal that we feel tempted to cite is the personification of time. If one can kill time in languages as various as Danish (*slå tiden ihjel*), Arabic (*qatala al-waqt*) and Polish (*zabijać czas*), then it seems reasonable to assume the potential existence of *conceptual* universals. If it is true that languages (or at least many of them) make use of the same metaphors, then the explanatory potential of the cognitive account becomes evident.

entire construction is simply a sum of its components that are stacked together⁷. With regard to the cognitive account of morphology, some very illustrative examples can be taken from the Arabic language, where all linguistic signs in Arabic are highly motivated by the structure of the root.

The gist of the Arabic root system is that roots, comprising for the most part three letters, convey some basic meaning so that *k-t-b*, for instance, conveys the idea of writing or inscribing. A couple of important remarks can be made here. To begin with, one can hardly maintain that such a morphological structure is abstract and meaningless. Obviously, vowels (and sometimes also other consonants) need to be added, if the word is to have any definite meaning, but it is undeniable that every root can be ascribed some basic meaning. Thus, if the meaning underlying is that of writing, then the word can produce such associated words as 'to write', 'book', 'correspondence', 'literature', 'library', 'typewriter' 'author', 'office', 'school' etc. Now, as every root can lead to a great number of words, which are related to the basic meaning of the three root letters, it is evident that the words are motivated by the root. What has to be stressed is that, being obviously motivated, the words can be predicted or derived only to some extent. If we consider such forms as verbal nouns, we can see that they are indeed motivated, but absolute predictability is out of the question. We can naturally formulate some morphological rules, but in the long run it is not possible to guarantee the absolute predictability that is typical of formal languages. Accordingly, one cannot guarantee that the patterns, which create *kitâba* (the act of writing), *maktab* (office), *maktaba* (library), *miktâb* (typewriter) or *mukâtaba* (correspondence), to name but a few, will always operate without any additional semantic contributions. In the light of this, a cognitive linguist will retain de Saussure's stance that linguistic signs (in this particular case the root *k-t-b*) are arbitrary, but he will simultaneously point out that many linguistic expressions (as for instance *maktab* or *miktâb*) are not only motivated (being based on the root consonants), but also incapable of being rule-derived with absolute predictability.

Furthermore, if one considers such an example as the root *s-b-h*, which at the same time refers to 'morning' and 'beauty', these being further associated with 'freshness' and 'youth', then it is reasonable to say the motivation in the Arabic language can be seen as not only of structural, but also of conceptual nature. This is clearly reflected in many metaphorical extensions such as when *fataha*, which first and foremost means 'open', is

⁷ Incidentally, it is worth mentioning that the generative approach assumes that if the meaning of a construction is not a sum of the meanings of its components, then it is a dictionary definition that suffices to describe the meaning. On cognitive view, such an approach also results in an extremely impoverished and, therefore, inadequate semantics of natural language. Although the dictionary view of semantics opens the possibility for a neat and closed account of semantics, cognitive linguistics opts for the encyclopedic approach. When Langacker defines grammar as 'a structured inventory of conventional linguistic units' (1987:57), he rejects the 'generative' view of grammar. Consequently, grammar is no longer seen as 'providing a formal enumeration of all and only the well-formed sentences of a language' (ibid. 63), since it precludes the encyclopedic view of semantics, i.e., the open-ended character of meanings. Langacker stresses that it is hardly possible to exhaustively describe the meaning of a linguistic expression by a dictionary definition alone, as the preponderance of concepts must be understood with reference to more than one domain. Langacker gives the example (ibid. 154) of the concept [BANANA], which comprises specifications from such domains as the spatial or taste domain and many abstract domains. In view of this, he argues that the meaning of a concept is encyclopedic, since it comprises semantics and pragmatics, i.e. linguistic and extra-linguistic knowledge.

used metaphorically, as in *fataha-l-bint*, where it means ‘deflower’. It is, presumably, the underlying meaning of the root that motivates this metaphorical projection. Lastly, it is evident, that constructions in Arabic are more than sums of meanings of their constituents. Apart from the *k-t-b* examples, one can point that *qatala* means ‘kill’, ‘assassinate’ and ‘murder’, but its verbal noun *qitl* denotes ‘enemy’, ‘foe’ or ‘opponent’, i.e. ‘somebody whom one desires to slay’.

In opposition to the generative stream, cognitive account assumes that grammaticalness, like everything in language, is a matter of degree, since it is conditioned by given coding strategies. Small wonder then that the possibilities for creating novel expressions transpire practically unlimited and that virtually any morphological or syntactic pattern can be used with a view to producing them. Accordingly, *per analogiam* to units such as *writer* or *killer*, which are instantiations of the V + *-er* rule and denote a person that performs the activity described by the word, the language user can come up with a novel expression such as *rebuffer*. Given the V + *-er* schema, cognitive linguistics maintains that such schemas can be extrapolated irrespective of whether we deal with lexical and figurative extensions or grammatical productivity, but it has to be borne in mind that in all cases the search for absolute predictability that is characteristic of formal languages is a wild-goose chase. If the generative view pivots on the idea that it is necessary either to derive or to enumerate the whole set of structures that can be generated, then on cognitive account it is by no means possible to present either an algorithm that would render it possible to compute all expressions from a set of rewriting rules or a full list of such structures, the impossibility being due to the fact that such an algorithm or such a list would have to include the whole of human cognitive experience.

In the light of the assumption that with regard to their meaning (conceptual content) grammatical constructions are not reducible to the meaning of their components, cognitive linguistics suspends the traditional division of morphemes into lexical (content) and grammatical (function) and acknowledges that grammatical morphemes make important semantic contribution to the constructions they occur in (Langacker 1987:19)⁸. Again, this cannot be overemphasized, since inasmuch as cognitive linguistics repudiates the reductionist approach which assumes that the meaning of a construction is a sum of the meanings of its components, cognitive critique demonstrates that it is not possible to predict the behavior of natural languages with the same exactness that is typical of formal languages. The grammar of natural language is conditioned by specific human cognitive mechanism and that is why very often the meaning of a construction is generally more than the given morphemes and the rules for their combination. However, the unpredictability of natural language can be observed not only at the level of morphology, but also at the level of syntax, as neither lexical constructions nor sentences can always be rule-derived in the generative fashion.

⁸ Thus, Langacker argues that even the preposition *of*, which in the generative stream has always been characterized as devoid of any semantic value, can be viewed as meaningful (cf. Langacker 1999:73 sqq.)

Problems of Syntax

If generative grammar focuses on establishing rules that will render it possible to predict outputs from given inputs and characterizes everything that cannot be computed in this way as arbitrary, cognitive linguistics combines its theory of syntax with its theory of motivation. The theory of motivation transpires useful for the cognitive approach, since its account of radial categories leads to the conclusion that more peripheral subcategories are neither computable or derivational (in the Chomskyan sense) from the central category nor completely arbitrary (in the de Saussurian sense). Lakoff offers (1987) a syntactic analysis with a view to demonstrating that radial categories are also to be found in the domain of syntax and that they, similarly to the ones in lexicon, motivate correspondences between form and meaning. Thus, in the third case study of his monumental *Women, Fire and Dangerous Things* (1987:462 sqq.), Lakoff endeavors to show that the generative view of grammar is unsatisfactory, as it fails to observe that the meaning of many grammatical constructions motivates their linguistic form so that syntactic structures are very often motivated by the structure of cognitive models. As there is no point in relating Lakoff's meticulous analyses, suffice it to say that he offers a theory of syntax in which syntactic categories are semantically motivated and grammatical constructions possess meanings. His conclusion is that the central syntactic categories can be predicted from the semantic conditions, while the noncentral syntactic subcategories are motivated extensions of central categories. What is crucial is that in neither way can syntactic categories be viewed as autonomous in the generative sense.

When protesting against the exaggerated arbitrariness of *every* linguistic sign and against the generative view of grammar, cognitive linguistics postulates also the principle of iconic sequencing. If, after Sweetser (1990), we compare sentences such as *I read books and newspapers* versus *I read a book and went to bed*, we can observe that the usage of *and* in both sentences is quite different. In the former sentence, the usage of *and* is *symmetric*, since we can freely change the conjuncts and the meaning does not change with the reversal of conjuncts, whereas the latter sentence exhibits an *asymmetric* use of *and*, since a change in the order does change our interpretation of the events. Sweetser explains (1990:87) that such an asymmetry is '*due to the iconic conventions of narrative word-order*'. While the sequence of the two clauses reflects the sequence of the events in this sense that the first clause is interpreted as temporally prior to the second, it is important to notice that the conjunction *and* does not convey any information about the order of events: the sequence of events is simply reflected by the linearity of the clauses. If we now compare sentences such as *He opened the door and entered the house* and **He entered the house and opened the door*, we can conclude that the former sentence is acceptable, since the sequence of the clauses reflects the chronological order of events, whereas the latter sentence is hardly acceptable precisely for this reason that the chronological order of events has been violated. As Ungerer and Schmid observe such sentences '*are unacceptable because the order in which the clauses are arranged violates the principle of iconic sequencing* (1996:251). From the point of view of cognitive critique of generative grammar, the following issues should be pointed out. Firstly, it is crucial to notice that the unacceptability of the latter sentence

cannot be explained by reference to the clause patterns and the rules of syntax alone. Secondly, the phenomenon of iconicity confirms our earlier suggestion that extensionality should be seen as rather untypical of natural languages. Finally, cognitive analyses of iconicity corroborate the thesis that meaning and grammar interface, as grammar transpires to be an 'image'.

Inasmuch as syntax rules, within generative linguistics, are independent of semantics and pragmatics, generative grammar runs counter to natural intuitions with its implications that natural language consists of uninterpreted symbols and, consequently, its primary function must be production of sequences of uninterpreted sounds rather than communication. This is clear already in *Syntactic structures* where Chomsky declares

we were studying language as an instrument or tool, attempting to describe its structure with no explicit reference to the way in which this instrument is put to use (1957:103).

Generative grammar makes two important divisions: firstly, it differentiates between acceptability and grammaticality and, secondly, it differentiates between semantics and pragmatics (cf. e.g. Chomsky 1965:11 sqq.). With regard to the first division, it has to be said that when differentiating between acceptability and grammaticality of sentences, generative grammar relegates the former to the sphere of performance, while the latter is generated by the syntax. This differentiation results in the opposition between sentences and utterances: sentences are identified with competence and belong to grammar which is viewed as an algorithm generating a set of sentences, whereas utterances are relegated to performance, as they are seen as particular and contingent instances of sentences. With regard to the second division, it has to be said that when differentiating between semantics and pragmatics, generative grammar deems semantics to be far important, as it deals with the meaning of sentence that is to be 'objective', i.e. independent of speaker's intensions and capable of correctly corresponding to the external world. Pragmatics, which deals with how speakers use sentences, is clearly separated from semantics and relegated to a role of secondary importance. Needless to say, the primacy of semantics over pragmatics stems from the assumption that it is semantics that concerns itself with the objective relations between language and the external world.

On discovering that syntactic categories and grammatical relations are not autonomous, but dependent of meaning and use, cognitive grammar repudiates the idea of an autonomous syntax and maintains that many a syntactic analysis is incomplete unless supplied with semantic and pragmatic analyses. Inasmuch as it is not only acceptability but also grammaticality that is determined by the context, meaning and use, cognitive linguistics departs from the generative enterprise in its assumption that the order in which component structures are integrated into composite structure (i.e. the constituency in Langacker's terminology) is flexible and variable, while in generative grammar it is always fixed and invariable. Langacker demonstrates that special (e.g. communicative) circumstances can exert profound impact on the constituency and, consequently, change it in a way that cognitive linguistics can explain much better than generative grammar. As an example Langacker gives the sentence: *This target / the arrow hit / (but not that one)*, explaining that

the canonical NP + VP organization is readily suspended when communicative factors favor isolating the direct object as a separate major constituent (1987:319).

Accordingly, Langacker demonstrates that semantics must not be seen as autonomous not only at the level of the internal structure of the word meaning but also at the level of sentence semantics.

Similarly, Lakoff offers a thorough analysis which shows that the rules for combining clauses must be accounted for on semantic and pragmatic grounds. The scholar's analyses lead to conclusion that syntax cannot be viewed as autonomous and transformations cannot explain all relationships among grammatical constructions, since one can make better predictions with regard to the syntactic behavior of a construction, if one does not disregard its semantic and pragmatic constraints. Thus, Lakoff shows (1987:475) that the transformational approach cannot explain why rhetorical questions such as '*Who would like to live here?*' can be combined with *because*-clauses (*I am selling my apartment, because who would like to live here*) and why a true question such as '*Which apartment would you like to buy?*' cannot (**I am selling my apartment, because which apartment would you like to buy*). Lakoff offers an interesting explanation: rhetorical questions are in fact statements (*I am selling my apartment, because no one would like to live here*), whereas true questions are requests for information (cf. also Lakoff & Johnson 1999:485)⁹. His generalization is based on conditions that are not only syntactic but also semantic (the clauses offer justification) and pragmatic (the syntactic constructions function as statements). In view of this, Lakoff shows that, contrary to the autonomous syntax hypothesis, many a syntactic phenomenon must be understood with reference to its semantics and pragmatics. Moreover, as the example demonstrates there is no clear-cut syntactic rule which precludes the possibility of a question being combined with a *because*-clause, it becomes evident that one must take into consideration the so called performative functions of speech acts. As a result, Lakoff arrives at the conclusion that if a question is in fact a statement, then it can be combined with *because*-clauses and if it is not, then it cannot. Consequently, semantics proves to be hardly autonomous at the level of syntax, since every analysis conducted at the level of sentence semantics must also include pragmatics. In the final analysis, Lakoff shows that when it comes to the study of syntax even the absolutely fundamental distinction between subordinate and coordinate clauses can under certain circumstances be suspended, since

clauses expressing a reason allow speech act constructions that convey statements, and the content of the statement equals the reason expressed (1987:480).

Inasmuch as Lakoff's bases his analysis on the illocutionary forces of grammatical constructions, he incorporates semantic and pragmatic conditions into the study of syntax and, thereby, formulates a generalization about syntax in semantic and pragmatic

⁹ It may be interesting to observe that the same situation occurs in Danish, whose structure is, arguably, even less flexible than the English one. Thus, one might perfectly say "*Jeg sælger min lejlighed, fordi hvem ville bo her*", whereas "**Jeg sælger min lejlighed, fordi hvilken lejlighed ville du købe*" is unacceptable.

terms which generative grammar, being founded on the dogma of the autonomy of syntax, can by no means formulate. Having concisely (and – needless to say – superficially) dealt with the cognitive account of such linguistic phenomena as metaphors, constructions, motivation, iconicity and performative functions of speech acts, we can attempt succinctly to present the most important consequences of the cognitive approach.

Cognitive implications

At the beginning of the present paper it was stated that an attempt at confronting the generative approach to language with the cognitive one should not disregard the fact that these opposite accounts of language result from mutually exclusive life views. Apart from the generative tendency to eliminate the problem of cognitive agent from all linguistic analyses, the following bones of contention can be signaled. In opposition to the generative view that syntax (grammar), being autonomous, is independent of lexicon (semantics), cognitive linguistics maintains that the traditional division of grammatical structure into discrete components such as grammar, lexicon, morphology, and syntax is purely conventional, as these form a '*continuum of linguistic expressions*' (Langacker 1987:425, cf. also id. 1991:3, 1991b:343 and 1999:1 or Lakoff & Johnson 1999:50). Apart from these traditional divisions, cognitive linguistics also annuls dichotomies between literal and figurative language, semantics and pragmatics, competence and performance, grammaticality and ungrammaticality (cf. e.g. Lakoff and Johnson 1980 *passim* and 1999:486, Lakoff 1987:475, Langacker 1987:5, 18, 154, 319, 1991:4, 1991b:262). Furthermore, as very often it is not feasible to ascertain beyond any doubt whether or not a linguistic structure belongs to a particular category and as, thus, quite frequently membership becomes a matter of degree, cognitive linguistics demands that the prototype model categorization substitute for the classical theory of categorization. Cognitive linguistics makes, thereby, allowances for the complexity of linguistic phenomena and views prototypical instances as central members of the category, while other instances as a gradation from the central to more peripheral, depending on how much they differ from the prototype (cf. e.g. Taylor 1989). One might actually say that from the cognitive perspective, gradient linguistic phenomena constitute an overwhelming majority, while discrete (i.e., sharply defined and clear-cut) entities, which the generative enterprise analyzes, are in the minority. In other words, Chomsky's idealizations, whenever they are not blatantly far-fetched, remain at best only prototypical examples and that is why where generative linguistics seeks the 'kernel' or the 'core', cognitive linguistics finds merely 'prototypical'. The philosophical implications of implementing the prototype model are that cognitive linguistics renounces all claims to absolute predictability in favor of more realistic (i.e. statistical) description of linguistic phenomena (Langacker 1987:49, cf. also 1991b:290). In opposition to the generative quest for universal and autonomous structure, cognitive linguists concern themselves with language-specific structures which are conceptually embodied and based on conventional imagery. Hence, in lieu of grammatical universals

which are understood as universals of form alone, cognitive linguistics focuses on such conceptual universals as metaphors or spatial relations (cf. Lakoff and Johnson 1999:506)¹⁰. As a result, the cognitive approach regards logic and mathematics as inadequate tools for describing the semantics of natural language and favors biology (cf. Langacker 1987:5). That is also why Ungerer and Schmid offer an apt characterization of cognitive linguistics when they describe it as

an approach to language that is based on our experience of the world and the way we perceive and conceptualize it (1996:X).

Linguistic conceptualization is nothing but a reflection of basic cognitive processes. Thus, if generative grammar is not concerned with the discovery procedure for grammars (cf. Chomsky 1957:56, 106), cognitive linguistics focuses on the circumstances in which language production occurs. If the generative approach extols 'Cartesian linguistics' for '*the observation that human language, in its normal use, is free from the control of independently identifiable external stimuli or internal states*' (Chomsky 1966:29), then on cognitive account every grammar, syntax included, is conditioned internally, i.e., by the meaning it is supposed to convey and externally, i.e., a) by the bodily experience of the language users and b) by the culture in which they use the language as a tool for communication.

Inasmuch as language, on cognitive account, is a product of basic cognitive mechanisms and, therefore, an integral part of human cognitive processing, cognitive linguistics is a shift from ontology to epistemology, for it is not concerned with the world as such, but rather with the world as it is constructed in human cognition:

it is our conception of reality (not the world per se) that is relevant to linguistic semantics (Langacker 1987:114).

The upshot of it is that language is seen as a result of the interaction between the cognitive agent and the external world. Accordingly, cognitive linguistics does not understand meaning in terms of a correspondence of words (linguistic forms) to the world (objects or state of affairs) as in the generative stream (cf. e.g. Chomsky 1965:27), but rather in terms of human perception, bodily experience and conceptualization. Cognitive linguistics views meaning via experience, as it does not place the meaning in the mind, but postulates the embodiment of concepts, so that the structure of language is based on bodily experienced image schemas.

Of all metaphysical assumptions underlying generative grammar that Lakoff and others enumerate (Lakoff and Johnson 1999:470 sqq.), we shall mention here only three¹¹. 1) The assumption that the mind is autonomous in the sense that it is independent

¹⁰ Kövecses argues, for instance (2000:183), that there are culture-specific and universal aspects of emotion language, the latter being based on the physiological functioning of human body.

¹¹ A thorough presentation of the metaphysics that underlies modern linguistics can be found in Lakoff and Johnson 1980, Lakoff 1987, Lakoff and Turner 1989, Lakoff and Johnson 1999. In general, the ontology of generative grammar presupposes the following assumptions: 1) while reality consists of discrete entities which have fixed properties, some of those properties, that objects have, are insofar essential as without them the thing could not be what it is; 2) while all the entities that share some properties form a category, such properties are necessary and sufficient to define the category; 3) inasmuch as they share some objective properties, the entities in the world form objectively existing

of the body. This assumption results not only in a complete disregard for the bodily basis of thinking and reasoning (these being perception, imagination, emotions, gestures, motor capacities, social and cultural context), but also in the methodological bias that no recourse to any empirical study is needed, since introspection suffices for a thorough investigation of the disembodied mind and language (cf. e.g. Chomsky 1965:18 sqq. and already 1957:13, 49). 2) The assumption that language and thinking are mathematical and logical in nature and can, for this reason, best be captured by means of formal rules. The assumption that language is mathematical in nature results in its characterization as a set of complex ideas (e.g. sentences) which are derived out of simple ones (e.g. words) and a linguistic quest for a universal language based on a universal grammar (cf. e.g. Chomsky 1957:14, 61 and 1965:35). 3) The assumption of nativism, i.e. the idea that the mind possesses certain objective ideas and concepts innately and these, being inborn, are not acquired via experience (c.f. especially Chomsky 1966 *passim* and also 1965:48 sqq.). Language possesses an essence (i.e. the core which makes it what it is) and this essence of language is the universal syntax or 'universal grammar' which is not only innate but also autonomous, i.e., independent of the bodily experience and the external world (cf. Chomsky 1966:29, 59 and 1965:25). As a result, the universal grammar, the essence of language, can be most effectively rendered formally due to its mathematical character, while language-specific grammars are negligible due to their idiosyncratic nature.

Now, in opposition to the first two assumptions, Lakoff views the mind as embodied and maintains that concepts are meaningful owing to the bodily experience (e.g. our spatial-relation concepts) and that they cannot be reduced to meaningless symbols. With regard to the third assumption Lakoff and Johnson characterize (1999:507) the innate-versus-learned controversy as '*an inaccurate way of characterizing human development*'. The scholars argue that although we are born with particular abilities, only some of them continue to be important for our further development. As many of our neural connections '*die off within the first few years of life*' (ibid.), the metaphysical assumption which combines the innate with the imperishable is, on this view, not tenable. In much the same way, though in a different context, Langacker observes that the computability of a structure does not prove its being innate, as computability can simply be perceived as learnable (1991b:262 cf. also 1999:91).

Cognitive linguistics postulates that neither the tools of formal logic are adequate for the semantics of natural language nor does the classical account of truth do justice to the importance of human perceptual idiosyncrasies. If our thinking is, for instance, metaphorical in its nature, then it would be rather preposterous to assume that our metaphors adequately mirror the external reality. If the relation between the reality and its representation is mediated in our conceptualization, then in lieu of a fruitless quest for

categories, among which there are logical relations; 4) categories, defined by the possession of essential properties, *correspond* to the kinds of things that there are. These postulates culminate in the assumption that the mind is a mirror of nature. Thus, it is assumed that symbols used in language and thought correctly correspond to entities and categories in the external world and that this world is structured in such a way that this objective symbol-to-world correspondence is possible. Hence, one further assumes that symbols receive their meaning via a conventional correspondence to objectively existing entities and categories in the world and a system of such symbols, '*linked to the world in this way, can be said to be a representation of reality – a mirror of nature*' (Lakoff 1987:162)

objective reality, cognitive linguistics must propose a study of mechanisms that render our perception of reality what it is. Understandably, cognitive linguistics embraces Hume's and Kant's view that the structure of time and space comes from us and not from the world as such. We perceive time in terms of motion and space in terms of containers, because these conceptual metaphors make our understanding of the world far more effective. With what has been said hitherto, it goes without saying that cognitive linguistics opts for the same sort of constructivism which is to be found in the philosophical works of Hume and Kant. Cognitive linguistics could safely be characterized as a form of Kantism in linguistics, for on both accounts there can be no talk of any object (or language) without the subject. Furthermore, cognitive linguistics renounces all claims to the ultimate truth, since it assumes that every description of language is inexorably metaphorical. For this reason, a linguistic description, like any description is not true in any absolute sense, since linguistic knowledge, like any knowledge, is a construct rather than a representation. The world has not divided itself into 'nouns' or 'verbs', as such a world is an evolutionary product of the human cognitive apparatus. However, although cognitive linguistics does opt for this type of constructivism, it nonetheless retains the realistic stance which recognizes the reality of the external world that exists independently of human beings. Hence, the constructivism of the cognitive approach entails neither antirealism nor idealism.

All things considered, it might be salutary to point out that cognitive linguistics is realistic also with regard to the language acquisition process. In order to learn a language it does not suffice to learn some universal grammar, because then acquiring such a universal syntax would be tantamount to mastering all languages that exist. This is naturally preposterous, as it is the language-specific grammars, loaded with the recalcitrant idiosyncrasies, that make the process of language learning so cumbersome. Chomsky's approach, inasmuch as it focuses on the core, is fatuously reductionist, precisely as it ignores many language-specific problems. Even if we consider such issues as articles, we will conclude that the idea of a universal grammar is a far-fetched idealization: Arabic, Danish, English and German possess definite and indefinite articles, but Greek has only definite ones, while Latin and Polish know none. It is ridiculous to assume that it will suffice to acquire one universal deep structure to be able to use the article systems of the languages. For anyone who has taken pains of learning a language it is obvious that in order to master a language one must not acquire some universal grammar, but many language-specific constructions. Similarly, the art of translating is more than words and rules for their combination into clauses and that is why it seems plausible to assume that translation should be based on conceptual universals rather than on formal ones.

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