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Cognitive Grammar Theory of Nominalization and Nominal Periphrasis: The State of the Art

1. Introduction

This paper constitutes a critical overview of cognitive grammar (henceforth: CG) literature on nominalization and the related phenomenon of nominal periphrasis with possessives, *of*, and *by*. The paper is structured along three sections. After the first section outlining the main points of Langacker's original account of nominalization and nominal periphrasis, the second section shows how this account has been creatively developed by other cognitive grammarians, either in qualitative terms (by their extending and/or re-evaluating Langacker's original ideas) or in quantitative terms (by their application of Langacker's approach to detailed analyses of large data samples). Finally, the concluding section attempts to indicate the possible lines of further development of the CG theory of nominalization.

2. Langacker's original account of nominalization and nominal periphrasis

Unlike the classic generative approaches to nominalization (e.g. Lees 1968, Chomsky 1970, etc.), Langacker's original account (most notably Langacker 1991: 22–50, but also 1987 and 1992) is neither rule-governed, nor list-based. Instead, developed in accord with the fundamentals of CG, it is a usage-based, bottom-up approach, inextricably linked with Langacker's own conceptualist account of traditional lexico-grammatical categories of noun, verb, adjective, adverb, etc.¹

¹ Generative theories of nominalization for a long time focused on issues that appear of little import when viewed from the perspective of CG. To take a well-known example, the question of whether nominalization should be considered a rule-governed syntactic phenomenon or a list-based lexical one – the so-called transformationalist-lexicalist controversy – seems gratuitous from the

On the whole, Langacker's discussion of how nominalization is accommodated in CG centers around four major points: the semantic character of the mechanism of nominalization (2.1), the kinds of semantic structures characteristic of nominalizations (2.2), the meaningful nature of the morphemes used for nominal periphrasis (2.3), and the unified treatment of all nominalizations (2.4).

2.1. Nominalization as conceptual reification resulting in profile shift

Langacker (1991: 22–23) characterizes nominalization as involving a conceptual reification which results in a shift of profile – from relational in the case of the underlying predication to nominal in the case of its nominalized counterpart. While the reification and the resulting profile shift pertain to all nominalization patterns, the patterns vary as to which specific facet of the underlying relational predication is selected for reification and profiling; they also vary as to whether the underlying relational predication represents the conception of a type or a specific instance of that type.

2.2. A provisional typology of nominalization kinds

Langacker (1991: 23–31) expands his discussion of the semantic character of the mechanism of nominalization by offering a provisional typology of the semantic structures of various kinds of nominalization. He begins by pointing out that the simplest kind of nominalization shifts the profile of an underlying process to some nominal entity evoked as part of its semantic structure: the trajector (e.g. *dancer*, *cook*), the landmark (e.g. *draftee*, *choice*), an instrument (e.g. *rocker*, *probe*), a product (e.g. *painting*, *bruise*), and location (e.g. *diner*, *lounge*).

A little more complex kind of nominalization designates a single episode of the perfective process profiled by an underlying predication (one can do an *imitation*, witness an *explosion*). A single episode of a perfective process can be reified and profiled by its nominalized counterpart for the reason that the component states of such a process make up a set of entities interconnected by virtue of being sequentially scanned by the conceptualizer. While this set constitutes a region which is only latent within the process itself, the region may become reified and profiled by the process's nominalized counterpart. Langacker's characterization of an episodic noun as profiling "a region whose constitutive entities are the component states of a [perfective] process" (1991: 25) allows him to account for the fact that episodic nouns are invariably count nouns. As the perfective process underlying an

perspective of a cognitive grammarian, who treats lexicon, morphology, and syntax not as independent modules, but as a continuum describable in terms of a set of symbolic units. What is more, both transformationalist and lexicalist accounts of nominalization are on the whole incompatible with CG, inasmuch as they make extensive use of such constructs as hypothetical underlying structures and various kinds of transformations, which violate Langacker's (1987: 53–54) restrictive content requirement. (They are neither semantic nor phonological entities).

episodic noun is inherently bounded, the episodic noun, which takes these states for its constitutive entities, is naturally bounded as well.

Another kind of nominalization gives rise to mass nouns in *-ing* (e.g. *walking*, *complaining*) based on perfective verbs. Langacker (1991: 26) claims that the influence of this nominalizer on a perfective verb is not unlike that of the progressive *-ing*: it suspends the sequential scanning of the process profiled by the verb, confines the verb's profile to an immediate scope of predication encompassing an internal series of component states (exclusive of the process's endpoints), and construes these states as effectively identical. On top of this, however, the nominalizer effects a shift of profile to the region comprising the homogenized component states. According to Langacker (1991: 26), the mass-noun status of *walking*, *complaining*, etc. reflects the fact that the region profiled by these nouns is construed as internally homogenous and unbounded within their scope of predication – these properties of the profiled region allow Langacker to characterize it as an abstract analog of a physical substance (cf. Langacker 1991: 26–27).

Yet another kind of nominalization discussed by Langacker (1991: 30–31) accords greater importance to qualitative factors than spatio-temporal distribution. What points to the pivotal role of quality space in the characterization of the regions profiled by qualitative nouns (e.g. a peculiar *walk*, a graceful *swing*) is the fact that they designate a manner of carrying out their underlying processes. As for the processes in question, their qualitative characterization is accomplished in quality space; the result of this characterization takes the form of a bounded region plotted with respect to ranges of possible values along selected qualitative parameters making up quality space. Subsequently, quality space and this bounded region respectively become the domain of instantiation and the immediate scope of predication for the profiles of the qualitative nouns which take the said processes as their underlying predications. More specifically, the profile of a qualitative noun constitutes a subpart of its immediate scope of predication – it is a bounded region whose boundedness motivates the count-noun status of such nouns.

Langacker (1991: 31–35) concludes his discussion of nominalization kinds by offering a semantic analysis of the contrast between the so-called action nominalizations and factive nominalizations (e.g. *Zelda's signing of the contract* vs. *Zelda's signing the contract*). Different grammatical properties of these two kinds of nominalization lead him to suggest that “action and factive nominalizations differ with respect to the level of organization at which the nominalizing operation takes place” (Langacker 1991: 31–32). While action nominalization is said to apply to a verb stem, factive nominalization is said to apply to a structure like *sign the contract*, which is considered intermediate in terms of semantic function between a verb stem and a full clause, inasmuch as it profiles an ungrounded instance of a process type. When nominalized, process types designated by verb stems give rise to action nominalizations, finite instances of process types designated by full clauses to *that*-clause nominals, and ungrounded instances of process types to factive nominalizations.

2.3. The semantics of nominal periphrasis with *ʼs*, *of*, and *by*

As for the meaningful nature of the morphemes used for nominal periphrasis, Langacker (1991: 35–43) argues that such periphrastic morphemes as *ʼs*, *of*, and *by*, which accompany the nominals corresponding either to the trajector or the landmark of the process underlying a nominalization (cf. *Zelda's signing of the contract* and *the signing of the contract by Zelda*), “should be attributed a meaning that reflects [their] grammatical function and is naturally related to the values [they] assume in other uses” (Langacker 1991: 35). What these periphrastic morphemes have in common is that they profile simple atemporal relations whose purport resides in the fact that they allow for an indirect specification of the processual participants which cannot be specified directly once the process in which they are engaged has undergone nominalization. Despite their similarity of function, the periphrastic variants of *ʼs*, *of*, and *by* remain semantically distinct.

Langacker (1991: 37–40) characterizes the periphrastic *of*, whose various uses instantiate the schematic conception of an intrinsic relationship between its trajector and landmark, as the preposition's specialized variant profiling a relation in which the trajector represents the schematic conception of a nominalized process and the landmark represents a participant of this process. In other words, the periphrastic *of* profiles the intrinsic relationship between a nominalized process and one of its central participants, either the trajector or the landmark. In contrast, Langacker (1991: 40–42) describes the periphrastic *by*, which arguably resembles the variant used in passives as well as the one used to identify the creator of an artistic work, as more contentful than the periphrastic *of* for the reason that the former, unlike the latter, “specifically identifies its object as the trajector of the nominalized verb and further suggests that its role is active to some degree” (Langacker 1991: 40–41). In turn, the periphrastic variant of the possessive *ʼs* is said to share the schematic conception of a reference-point relation with its remaining variants. The relation consists in the construal of the morpheme's landmark (the possessor) as a reference point with respect to which another entity – the trajector (the possessee) – is identified. Being specially adapted for the purposes of nominal periphrasis, the periphrastic variant of the possessive *ʼs* takes a nominalized process as its trajector and one of the processual participants as its landmark.

2.4. Unified treatment of all nominalizations

As for the third issue, the unified treatment of all nominalizations, Langacker (1991: 43–50) begins by pointing out that any attempts to describe nominalization as either purely syntactic or purely lexical are pointless from the standpoint of CG and suggests that his usage-based approach offers a viable alternative to such attempts. In terms of CG, the rules which give rise to nominalizations take the form of constructional schemas extracted by the conceptualizer whenever a pattern is discernible among a variety of nominalized forms encountered in language

acquisition and use. Importantly, the extraction of a schema does not affect the lexical status of these nominalized forms: schemas are said to coexist with their conventional instantiations in the cognitive representation of language. Once extracted, constructional schemas serve the dual role of models guiding the formation of novel nominalizations and facilitating the assessment of their conventionality.

An obvious advantage of the non-constructive nature of such schemas is that it accounts for the existence of nominalizations with unpredictable semantic properties: non-constructive schemas are not expected to construct specific nominalizations in all their detail; they merely enable such nominalizations to be categorized as either instantiations of a given pattern or its extensions. Another advantage of such schemas is that their variable degree of entrenchment, which reflects the number of specific nominalizations subsumed under each schema as well as their frequency of occurrence, can be held responsible for the variable productivity of nominalization patterns. Finally, the fact that such schemas are extracted at varying levels of abstraction can be taken to account for the inconsistent correlation between the semantic and the morphological aspects of nominalization – while low-level schemas embody local generalizations based on specific expressions, semantically specific but phonologically abstract high level schemas embody overall semantic characteristics of a nominalization pattern, whereas phonologically specific but semantically abstract high level schemas embody overall morphological characteristics of this pattern.

3. Augmentation of Langacker's original account

The original CG account of the phenomenon of nominalization (Langacker 1991: 22–50, as well as 1987 and 1992) was largely programmatic. Subsequently, Langacker's seminal approach was developed along several parallel lines. While some researchers focused on pinpointing the nature of the semantic extension that constitutes the gist of nominalization, others employed extensive data-based analytical procedures with a view to extending and specifying the typology of nominalization kinds operating on structures situated at different levels of complexity, and still others delved into the minutiae of nominal periphrasis.

3.1. The nature of the conceptual reification effecting a profile shift

Langacker's original account of nominalization carries with it an implication that the conceptual reification effecting a profile shift in a nominalized process constitutes a kind of semantic extension. While some cognitive grammarians (e.g. Twardzisz 1997: 126) seem content to accept Langacker's original characterization of the mechanism of nominalization at face value, others have attempted to pinpoint the exact nature of the semantic extension involved in nominalization.

For Radden and Dirven (2007: 78–80), but also for Panther and Thornburg (2002: 284–285), the kind of reification observable in nominalization is predominantly – if not entirely – metaphorical. In turn, Panther and Thornburg (2001: 184) state that the character of this kind of reification may be either metaphorical or metonymic (depending on a particular extended sense of a nominalized process), while Szawerna (2007a) argues that the kind of reification characteristic of nominalization may be entirely metonymic.

Szawerna (2007a) observes that the processes underlying English deverbal nouns comprise a large number of semantic entities (most notably, process participants and the relationships obtaining among them) which are amenable to reification and profiling in the course of nominalization. That is why, according to Szawerna (2007a), such processes can be thought of as providing conceptual structures that function as source concepts relative to which target concepts, i.e. the regions profiled by deverbal nouns, are identified. Because the source concepts and the target concepts are naturally contiguous – the latter are immanent in the former – the source concepts can be used to refer to the target concepts. Consequently, the metonymies that link source concepts, i.e. underlying processes, and target concepts, i.e. their nominalized counterparts, can be characterized as whole-for-part metonymies, such as PROCESS FOR PROCESS PARTICIPANT, PROCESS FOR EPISODE OF PROCESS, or PROCESS FOR PARTICIPANT'S CHANGE OF STATE.²

3.2. An extended typology of nominalization kinds

In addition to the kinds of nominalization characterized by Langacker (1991: 23–31), Taylor mentions one more kind, which gives rise to what he calls “ability nouns” (1996: 243), i.e. nouns which “profile the ability of the trajector to perform the relevant activity” (1996: 243). While Taylor correctly observes that a noun like *speech*, whenever used in sentences like *His speech returned* or *He lost his speech* (Taylor's examples, 1996: 243), designates the ability of the trajector of its underlying process to perform the activity in which it is engaged, he does not explicate the mechanism of this kind of nominalization. An explicit characterization of this, and many other, nominalization kinds can be found in Szawerna (2007b), a corpus-assisted study of nominalizations predicated by English deverbal nouns in *-ion* (*administration*, *conversation*, etc.). Szawerna's (2007b) systematic application of the principles of CG to the analysis of a large natural language data sample enabled him to come up with a consistent characterization of the full range

² In his most recent book, Langacker defines the conceptual mechanism of metonymy as “a shift of profile” (2008: 69), which – in view of the fact that in his original account Langacker (1991: 22–23) refers to nominalization as a conceptual reification resulting in a profile shift – goes some way towards corroborating Szawerna's (2007a) tentative suggestion that the mechanism of nominalization may be metonymic by nature.

of nominalization kinds designated by English deverbal nouns in *-ion*, developed in reference to the semantic structures of the processes predicated by the verbs motivating these deverbal nouns.

As for nominalizations operating on predications that are more complex than a process type, Heyvaert (2003: 179–248), in her cognitive-functional account of gerundive factives (e.g. *His eating vegetables is surprising*), *that*-factives (e.g. *That he came was obvious*), and *the fact that*-constructions (e.g. *The fact that you're sorry isn't enough*), provides compelling evidence that nominalization involves “the functional reclassification of a non-nominal into a nominal unit, whereby the nominalized unit not only takes over the external functions of nominal constituents in the clause but also adopts the latter’s internal nominal behaviour” (Heyvaert 2003: 244). She argues that all three kinds of factive nominalizations “start from a clausal level of assembly but realize nominal strategies of grounding” (Heyvaert 2003: 244). Importantly, Heyvaert (2003) has demonstrated that the clausal structure reclassified by factive nominalizations comes to function either as a nominal head or a full nominal and that the grounding strategies adopted by various types of factive nominalizations are in accord with the status of the clausal unit they come to reclassify.

To Heyvaert (2003), *that*-factives are fully grounded nominals which incorporate uniquely grounded instances of process types, to which they refer by using “the proper name strategy” (Heyvaert 2003: 245). In turn, Heyvaert (2003) analyzes *the fact that*-constructions as appositives, with *the fact*-nominal functioning as an indicator of the basic-level meaning of the *that*-structure. Finally, Heyvaert (2003) characterizes gerundive factives as derived from an atemporalized clausal head, which, although left ungrounded, is always instantiated by a subject “which may be either expressed explicitly by a possessive determiner, or by the genitive or objective case, or it may be implied and retrievable from the matrix clause or context” (2003: 245).

3.3. Nominal periphrasis revisited

Taylor (1996) adopts Langacker’s reference-point analysis of the possessive *’s* used for nominal periphrasis and develops it by expounding the semantic motivation for the well-known constraints pertaining to the interpretation of the nominal elaborating the landmark of the possessive *’s*, i.e. the possessor nominal: the so-called affectedness constraint and experiencer constraint. Taylor (1996: 211) argues that since “the possessive construction grammaticalizes a special strategy for ‘anchoring’ the possessee, we may presume that the possessor nominal needs to name an entity that is cognitively accessible”; he also suggests that the factors likely to render this entity cognitively accessible are its discourse-conditioned topicality and its inherent topicality. Granted the reference-point analysis of the periphrastic *’s*, the experiencer constraint finds its motivation in the fact that a participant

approximating the conception of the archetypal experiencer is inherently more topical than any other participant of a mental process. Similarly, the affectedness constraint finds its motivation in the fact that an affected participant is inherently more topical than an unaffected participant.

Furthermore, Taylor (1996: 236–238) argues that, in addition to a high degree of topicality, the possessor must exhibit a high degree of what he refers to as “cue validity” with respect to the possessee; in other words, the entity designated by the possessor must be such that it can provide reliable cues for a successful identification of the process underlying the nominalization profiled by the possessee. Granted the reference-point analysis of the periphrastic *’s*, the affectedness constraint falls out as a natural consequence of the fact that a process can be more reliably cued by a participant affected in the course of this process than by a participant unaffected in its course. Similarly, the experience constraint falls out as a natural consequence of the fact that a mental process can be more reliably cued by a participant approximating the conception of the archetypal experiencer than by a participant approximating any other role archetype.

Expanding on Langacker’s and Taylor’s account of nominal periphrasis with *’s*, *of*, and *by*, Szawerna (2008) proposes the following generalization concerning the co-occurrence of nominal periphrastic expressions with trajector and landmark nominalizations: periphrastic expressions employing the possessive *’s* as well as the prepositions *of* and *by* can be used to specify the participants of a process underlying a nominalization as long as these participants are not selected for reification and profiling by the nominalization. Szawerna (2008) goes on to explain that the reason for this constraint lies in the fact that the function of such periphrastic expressions amounts to the indirect specification of the participants engaged in the processes underlying the nominalizations designated by deverbal nouns, adding that once a participant of this kind becomes recognized as a region and put in profile in the course of nominalization, there is little point in specifying it periphrastically, inasmuch as a composite expression involving this type of specification would be inherently repetitive due to the identity relation obtaining between the trajector and the landmark of a periphrastic morpheme.

4. Conclusion

Our overview of the CG theory of nominalization and nominal periphrasis would be incomplete if we neglected to point toward the most promising lines of the theory’s further development. One such line stems from the fact that the studies referred to in this paper are predominantly Anglocentric (Even Heyvaert 2003, who incorporates some Dutch data in her analysis, focuses on English.). In view of the apparent Anglocentricity of the CG theory of nominalization and nominal periphrasis, we postulate that the CG theory of nominalization be verified against data from languages other than English. With the exception of the papers by Thyme and

Beck, who apply the CG theory of nominalization to systematic characterization of the nominalization patterns found in such exotic languages as Malagasy (Thyme 1989), Bella Coola, and Lushootseed (Beck 2000), little work has been done so far with a view to developing a broad cross-linguistic basis of the CG theory of nominalization and nominal periphrasis.

Another promising line of the development of the CG theory of nominalization and nominal periphrasis consists in attempting to pinpoint the metaphorical and metonymic aspects of nominalization. So far, cognitive linguists have approached nominalization either as constituting a metaphorical type of semantic extension (cf. Rad-den and Dirven 2007: 78–80, Panther and Thornburg 2002: 284–285) or a metonymic type of semantic extension (cf. Szawerna 2007a). It is not at all inconceivable, however, that both metaphor and metonymy simultaneously contribute to the shaping of nominalization processes. Such a ‘nominalization-as-metaphonymy’ hypothesis can be substantiated, however, only if research is conducted that will show (1) which aspects of nominalization can be regarded as grounded in metaphor, (2) which aspects of nominalization can be regarded as grounded in metonymy, (3) the extent to which nominalization is motivated by metaphor and metonymy, and (4) the specifics of the interaction between metaphor and metonymy observable in the semantic structure of various kinds of nominalization.

Yet another promising line of the development of the CG theory of nominalization and nominal periphrasis consists in enriching the inventory of theoretical and descriptive tools offered by Langacker’s classic CG with a variety of constructs utilized by other linguistic frameworks that share certain aspects of CG’s outlook on language, with a view to broadening our understanding of nominalization’s inner workings. So far, the classic CG theory of nominalization and nominal periphrasis has been enriched to a considerable degree with functional and constructionist additions. In her analysis of *that*-factive nominalizations, Heyvaert (2003) makes extensive use of Halliday’s (1994) idea of rank shift understood as functional reclassification. What is more, Heyvaert (2003) employs Gleason’s (1965) notion of the structural relationship of agnation to show that the most important generalization behind *-er* nominalization is constructional. A kind of functional-constructionist perspective is also adopted by Schmid (2000), who approaches the so-called shell-noun/shell-content complexes, of which many feature nominalizations, in terms of their semantic, cognitive, and textual functions (cf. Schmid 2000: 14–15). These functions are in turn characterized in reference to a broad range of structural patterns in which shell-noun/shell-content complexes occur (cf. Schmid 2000: 21–31).

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