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Maekelberghe, C.; Fonteyn, L.; Heyvaert, L.; Kristiansen, G.; Franco, K.; Pascale, S. de; ... ; Zhang, W.

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Charlotte Maekelberghe, Lauren Fonteyn and Liesbet Heyvaert

Categoriality in the English Gerund System

Lessons Learned from a Cognitive Linguistic Approach

Abstract: Within the frameworks of both formalist and cognitive-functional linguistics, the form and function of the English (nominal and verbal) gerund have long been studied from a theoretical and univariate perspective. In this retrospective review chapter, we argue that recent usage-based and quantitative methodologies, inspired by Cognitive Linguistics, have led to a myriad of novel insights into gerundive constructions. We show that conceptual features associated with “nominal” or “verbal” construals of an event, as presented in the cognitive-functional paradigm, can be operationalized as variables within a quantitative, variationist approach. In doing so, the variation between nominal and verbal gerunds is assessed from a probabilistic rather than dichotomous point of view, with particular attention to lectal variation and lexical constraints. The picture that emerges is multifactorial and opens up many avenues for future research.

Keywords: gerund, nominalization, categorial hybridity, recontextualization, alternation

1 Introduction

The social turn in Cognitive Linguistics, it has been argued by Geeraerts (2016: 528), naturally follows from the cognitive, usage-based and recontextualizing nature of Cognitive Linguistics. Recontextualizing language involves “a new way of looking at meaning in language” and assuming a *usage-based* perspective on language, which entails “the study of performance, of discourse, of actual usage” and of “lectal variation” (e.g. dialectal, regiolectal, sociolectal, but also register and stylistic variation) (Geeraerts 2017: 12–13). The methodological consequences

Charlotte Maekelberghe, KU Leuven, Warmoesberg 26, 1000 Brussel,
e-mail: charlotte.maekelberghe@kuleuven.be

Lauren Fonteyn, Leiden University Centre for Linguistics, Arsenaalstraat 1, 2311 CT, Leiden,
e-mail: l.fonteyn@hum.leidenuniv.nl

Liesbet Heyvaert, KU Leuven, Blijde Inkomststraat 21, 3000 Leuven,
e-mail: liesbet.heyvaert@kuleuven.be

of this approach to linguistic structure are extensive: a usage-based perspective requires empirical, quantitative research and necessarily involves corpus data.

It is hard to imagine a linguistic topic that has, in the last decade or so, benefited more from the recontextualization envisioned in Cognitive Linguistics than the English gerund. A favorite of transformational-generative research of the sixties and seventies (e.g. Lees 1968; Chomsky 1970; Fraser 1970; Schachter 1976) and formal linguistic analyses in later years (e.g. Milsark 1988; Pullum 1991; Malouf 2000), English gerundives were long analyzed as curious *morpho-syntactic* clusters of nominal and verbal features. Two major subtypes were thereby distinguished, viz. so-called “nominal” gerunds as in (1), which diachronically speaking came first, and “verbal” gerunds as in (2), which gradually developed from the Middle English period onwards and have become the most frequent subtype by far in Present-day English. Due to their curious formal mixture of nominal and verbal features, it was the verbal type of gerunds that received most attention in the early formal analyses of the gerund.

- (1) Please remain standing for *the singing of our national anthem*. (COCA)
- (2) He joined them in *singing the Greek national anthem*. (COCA)

In what follows, we sketch the way in which Cognitive Linguistic analyses of the English gerund from the early nineties onwards gradually moved beyond this formal and intrinsically binary approach, resulting in a multifactorial perspective that continues to produce new insights. The recontextualization of the English gerund involved not only a theoretical shift in focus, but also methodological innovations and the introduction of systematic, quantitative corpus data analysis – not replacing but supporting the earlier interpretative analyses with the empirical, quantitative and “maximally objectifiable data” (Geeraerts 2010: 9) needed to truly broaden our understanding of the gerund and the concept of categoriality in general.

2 From Formal Noun-Verb Mixtures to a Functional Nominality-Verbality Cline

A first lesson the cognitive approach to language has taught us is that it is worth considering categorially hybrid structures like gerunds not only in terms of their morphosyntactic structure, but also in terms of the functional-semantic properties associated with nouns and verbs. To arrive at new insights, it has proven

essential to consider the English gerund in light of two theories that lie at the core of the cognitive approach to language: prototype theory, and the symbolic nature of grammar.

As pointed out by Geeraerts (1989: 591), prototype theory was first successfully applied in the description of lexical semantics, but soon came to account for the “interaction between language and cognition on all levels of linguistic structure”. From early work in Cognitive Grammar, it is clear that the conceptualization of abstract linguistic concepts such as “noun” and “verb” as radial categories is no exception (e.g. Langacker 1987, 1991), in that particular linguistic items can be considered more “nouny” or “verbly” depending on the item’s resemblance to the category’s prototype (see also Croft 1991). Similarly, the cognitive linguistic view on linguistic categories is particularly welcoming of the idea that “prototypical categories are blurred at the edges” (Geeraerts 1989: 593), and that linguistic items can exhibit features of multiple categories.

The notion that grammatical categories are radial categories is not exclusive to the cognitivist approach to grammar, with well-known early proposals such as Ross’ (1973) nouniness squish constituting a predominantly formalist account of how different nominalization structures can be ordered on a cline from “decent” (i.e. fully nominal) to “defective” (i.e. more verb-like) nouns. Yet, to explain *why* this morphosyntactic variation exists, it is worth considering the morphosyntactic properties of these categorially hybrid structures in light of the conceptual and functional-semantic properties associated with nouns and verbs (e.g. Lyons 1968: 318; Bates and MacWhinney 1982; Hopper and Thompson 1985; Langacker 1987). For verbs, this conceptual prototype refers to a physical action or “PROCESS”, which is transitory, relational and conceptually dependent on (clausal) participants. Nouns, then, more typically denote a concrete object or “THING”, and are essentially persistent, delineated containers of information which are not conceptually dependent on other entities or relations to receive meaning. These conceptual categorial prototypes, which can ultimately be represented as bundles of functional-semantic features (discursive function, holistic/sequential construal, conceptual dependence, etc.), serve as reference points on a multidimensional semantic space in which more peripheral as well as categorially hybrid structures can be placed. The prototype of the categories noun and verb resides where the dimensions of semantic class and discourse-function overlap.

The initial functional-semantic recontextualization of categorially hybrid structures such as gerunds was mainly based on qualitative research (see e.g. Langacker’s (1991) analysis of gerunds in terms of the functional properties of “type” vs. “instance”; but also Heyvaert 2003). It is only in the last decade that this functional-semantic recontextualization has “materialized”, viz. through a

series of studies breaking down the abstract diagnostic features associated with nouns and verbs into a set of concrete features and values that allow the analyst to empirically determine the degree to which a given (instantiation of) a construction resembles the categorial prototype in corpus data. Importantly, these studies thus adduce evidence in favor of the claim that the functional-semantic properties of language, which are commonly seen as highly qualitative and subjective, can be captured in an objective and quantifiable way if we assume that “the interpretative process [of corpus data can be] guided by contextual cues” (Geeraerts 2010: 65). An example of how the functional-semantic approach to gerunds only truly gained speed when categorial features were operationalized and mapped out quantitatively is provided by a series of studies on degrees of nominality in gerunds, as linked to the extent to which they designate a holistic, bounded event (e.g. Demske 2002; Hartmann 2014; Fonteyn 2018; Heyvaert, Maekelberghe, and Buyle 2019), or ongoing “sequential” unboundedness. Such abstract notions, it is shown in these studies, can be operationalized by looking for explicit contextual cues that either establish a bounded or an unbounded reading (e.g. temporal prepositions such as *after* vs. *during*; matrix clause *She was just finished with* vs. *still occupied with painting the last wall*). In a similar vein, a nominalization’s conceptual (in)dependence can also be operationalized in terms of the lexical value of its base verb (Fonteyn 2019): nominalizations can be formed based both on what are called “semantically light” or “delexical” verbs (i.e., verbs that depend on a nominal form to express the predicate, e.g. *taking [a shower]*) and on “semantically full” or “lexical” verbs (e.g. *speak, dance*), which derive less of their meaning from their participants. Seeing that prototypical “nominality” is defined as showing a high degree of conceptual independence (Langacker 2009), more “nouny” nominalizations are less likely to be formed with a light verb than more “verby” ones. In most of these accounts, it is shown that (particular instantiations of) nominalization patterns can adhere to more nominal functional values or more clausal functional values, and their degree of functional-semantic categoriality is then operationalized as the statistical likelihood that they will occur with nominal or clausal functional values.

3 From a Schematic and Binary Perspective to a Usage-based, Variationist Approach

A second research gap that has been addressed by recent cognitive-functional work on the English gerund is the lack of a systematic, empirically grounded

comparison of the two main gerund types. The few contrasting analyses that have figured in traditional accounts of the gerund system (see, amongst others, Lees 1968; Vendler 1968; Chomsky 1970; Fraser 1970; Pullum 1991) mainly revolved around formal description (cf. *supra*) and tended to be based on cherry-picked examples. Thus, where functional-semantic analyses have added to our understanding of how and to what extent nominal and verbal gerunds impose a “nouny” or “verby” construal on events, further scrutinization is needed to reveal how this conceptual meaning interacts with more variationist factors at the level of usage.

In this respect, research on the English gerund system has seen a further recontextualization in three ways. Following one of the basic tenets of cognitive linguistics, and partly instigated by corpus-based diachronic research (e.g. Fanego 2004; De Smet 2008), most recent analyses of the English gerund are based on authentic instances of language use. Within these corpus-based approaches, a further shift can be discerned from qualitative corpus analysis (e.g. Heyvaert 2003; Fanego 2004; Hudson 2007; Heyvaert 2008) to quantitative analyses (Fonteyn, Heyvaert, and Maekelberghe 2015; Fonteyn 2019; Maekelberghe 2020). This usage-based approach has not only led to a more nuanced description of a broader range of gerund constructions, such as the emergence of the indefinite nominal gerund (e.g. *a bursting of the bubble*; Maekelberghe and Heyvaert 2016; Fonteyn and Maekelberghe 2018), but has also paved the way for a more encompassing variationist perspective on the gerund system, in which the language user’s choice for a particular (nominal or verbal) gerund construction is modelled on the basis of both language-internal (e.g. referential and aspectual semantics) and language-external variables (e.g. register and regiolectal variation).

A second form of recontextualization has been achieved by revisiting the language-external factors that condition variation in the gerund system. On the basis of detailed corpus analysis, Heyvaert, Rogiers, and Vermeylen (2005) debunk claims that formal registers prefer verbal gerunds with a genitive pronominal determiner (“*your* posing the question”) over those with an oblique determiner (“*you* saying that”), showing instead that oblique pronouns are predominant in both formal and informal registers. Likewise, the assumption that verbal gerunds with genitive subject are more acceptable in American English than in British English (Hudson 2007: 202) was challenged in Maekelberghe (2020), where no significant regional variation was found in the different formal realizations of the verbal gerund, nor in the factors constraining the choice between nominal and verbal gerunds. At the same time, quantitative analysis of register variation confirmed claims by Declerck (1991: 498) and Spencer (2006: 85) that nominal

gerunds are dispreferred in informal, and especially spoken, genres (Maekelberghe 2020).

A final type of recontextualization is to do with studying the lexemes that fill out schematic (constructional) patterns (Geeraerts 2017: 12; see also the “lexical origin hypothesis”, Goldberg 2006; Perek 2015). Until recently, this was not seen as a priority in the description of English gerund forms, which are traditionally considered to be highly productive morphological patterns (Bauer, Lieber, and Plag 2013: 557) regardless of whether they are nominal or verbal. The ambiguous status of the *-ing* suffix, which is traditionally viewed as a derivational affix with nominal gerunds, but has also been analyzed as an inflectional suffix with verbal gerunds (Quirk et al. 1985; Bauer, Lieber, and Plag 2013: 557), has probably long stood in the way of a comparative lexical approach as well. Accordingly, constraints on the formation of gerunds have mainly been discussed in the context of the nominal gerund, viz. that they are typically not derived from auxiliary verbs, stative verbs and syntactically complex verbs (Lees 1968; Fraser 1970).

Making use of methods from the family of collostructional analysis (Gries and Stefanowitsch 2004), recent research has further mapped out the lexical profiles of nominal and verbal gerunds, thereby also adding to our understanding of their distinctive semantic profiles. Fonteyn and Hartmann (2016), for instance, show that non-eventive meanings (e.g. *the meeting of the directors*) have become more prominent over time with nominal *-ing* forms, which may be indicative of a modest ‘denotational shift’ towards concrete, object-like meanings. Importantly, this token-level perspective supports the finding that the most prominent change in the gerund system over the course of the Modern English period is not necessarily the verbalization of the verbal gerund variant, but rather the increasing *nominalization* of the nominal gerund (Fonteyn 2019). As regards Present-day English, Maekelberghe (2019) empirically assesses claims that nominal gerunds occur more naturally in contexts that emphasize action semantics (e.g. *the opening of the gate took five minutes*), whereas verbal gerunds are the preferred option in factive contexts (e.g. *his eating vegetables surprised me*) (Lees 1968; Vendler 1968). The alleged action/fact distinction in the gerund system (see also Kiparsky and Kiparsky 1970; Langacker 1991; Dixon 2005) turns out to be challengeable on the basis of a distinctive collexeme analysis, which furthermore reveals that there is surprisingly little lexical overlap between nominal and verbal gerunds, both in terms of the syntactic contexts they are embedded in and the verbs they typically derive from (Maekelberghe 2020). Recent methodological advances, then, allow us to check prevailing abstract-semantic descriptions against data at the level of usage, but they can and should also be used as instruments to critically evaluate

whether there is indeed sufficient systematic variation between constructional patterns that would warrant further variationist analysis.

4 Conclusion and Outlook

The various theoretical and methodological shifts that have taken place in the study of the English gerund, we hope to have shown, offer a prime example of how Cognitive Linguistics, through “the analysis of the conceptual and experiential basis of linguistic categories” (Geeraerts and Cuyckens 2007: 3), can not only add to and refine, but in some cases also simply reject often long-standing claims. A closer examination of the complex interactions between nominal and verbal gerunds at the level of usage not only adds to our understanding of the distinctive construals they impose on events, it also helps shed light on the (changing) ways in which speakers have exploited the structural options that are available to them in the English gerund system.

It should be kept in mind, however, that a comprehensive account of the gerund system as a whole cannot be achieved by looking at the two gerund forms in isolation. The at times narrow focus on alternations as the main object of study has already been criticized for being too reductionist, with Arppe et al. (2010: 12) suggesting that alternations “should be but the starting point of quantitative multi-factorial treatment of language” (see also Gries 2017). This especially holds true in the case of the English gerund, which has seen both a formal and functional shift towards related nominal and verbal constructions, such as other deverbal nominalizations (Fonteyn and Maekelberghe 2019) or the present participle (Huddleston and Pullum 2002; De Smet 2010; Fonteyn and van de Pol 2016). As methods in quantitative, variationist Cognitive Linguistics continue to advance, then, we will be able to further carve out the complex patterns of variation on the English noun-verb gradient.

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