

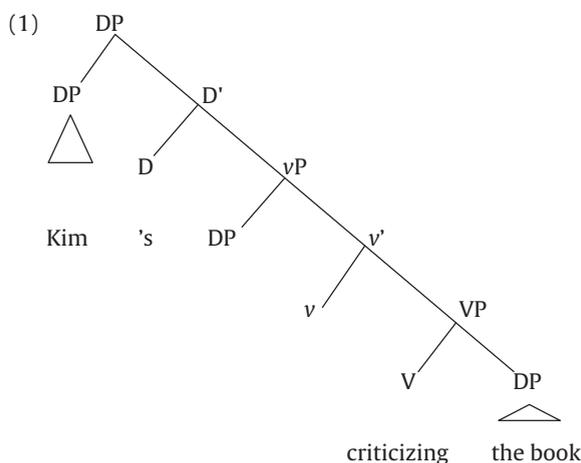


## Editorial

## Introduction: Nominalizations in syntactic theory

The analysis of nominalization is a foundational topic in generative grammar, dating back to Lees' (1963) monograph, based on his MIT dissertation. Lees defined, in broad terms, many of the problems and solutions that characterize this domain of inquiry to the present. One problem is to account for how nominalizations combine nominal "external" syntax with verbal "internal" syntax. Lees' solution was to posit a (potentially unpronounced) nominal head element in construction with a clausal constituent. Although few would accept Lees' specific execution of this approach today, the basic idea of positing a nominal head selecting a verbal projection remains central in generative analyses of nominalization, including many in this collection of papers. A second problem is identifying the role of syntactic derivation in nominalization structures. For Lees, all nominalizations were derived via syntactic rules from corresponding clausal (and thus verbal) constructions. This remained the dominant approach through the first decade of generative grammar, but since then Chomsky (1970) has exerted a powerful influence: most analyses of most types of nominalizations across languages assign at least some role to the lexicon in their derivation.

In the more recent generative tradition, the theory of functional categories has provided the impetus for an important breakthrough in the analysis of nominalization structures. This takes the form of the proposal that nominalizations involve what Borsley and Kornfilt (2000) call "mixed extended projections," a projection which is verbal up to a certain point in the structure, but nominal at and above the level where a nominal functional category is introduced. An example is Abney's (1987) analysis of *poss/-ing* gerunds (modified here from Borsley and Kornfilt, 2000:105), a pattern to which we return in the *Afterword* to this special issue:



(1) Involves a "mixed extended projection" in the sense that all projections through  $vP$  are verbal in their features and syntactic properties, while the projection is nominal at the level of  $D$  and above. This provides an account for the first classic problem of nominalizations: external nominal syntax with internal verbal syntax, but does so without positing a lexical nominal head, as in Lees' approach. The mixed extended projection approach also allows for a finely modulated typology of nominalizations, distinguished by the height at which the nominal functional head is introduced and its syntactic properties. Most of the analyses of nominalizations collected in this issue exploit these typological possibilities in one way or another.

In the following paragraphs, we summarize the seven contributions to this special journal issue. We then summarize the three major theoretical issues raised by these contributions, and we mention a related fourth issue. We return to these issues again in the *Afterword*.

Mark Baker's paper, "Degrees of Nominalization: Clause-like Constituents in Sakha," provides a detailed analysis of clausal – what we call "high" – nominalizations in Sakha (Yakut), a Turkic language of eastern Siberia. Baker analyzes three types of clausal complements in Sakha: finite CPs, participles, and gerunds. He posits a different functional category architecture to account for the varying "nouniness" of each complement type. Finite CPs embed TP under C, participles embed a verbal projection Ptpl under an agreement-bearing head H, and gerunds embed a nominal projection Ger under an agreement-bearing D head. The structural difference between participles and gerunds accounts for why, while both projections show subject agreement, only participles assign their subjects genitive case. The paper extends Baker's (2003) theory of lexical categories to functional categories such as D, Ger, and Ptpl and combines that theory with the B&K model of mixed extended projections and the height in the phrasal architecture of the category switch to account for an intricate array of facts, including constraints on scrambling, relativization and NPI licensing, in Sakha clausal complements. The paper is an unprecedentedly thorough study of clausal nominalization in an underreported language, and an important contribution to the theory of clausal nominalization.

John Bowers' paper, "Non-event Nominals and Argument Structure," proposes a mechanism to account for the realization of arguments in various types of lexical or "low" nominalizations, based on the theory of argument structure developed in Bowers (2004, 2010). Under this theory, the primary arguments Ag(ent), Th(eme), and Aff(ectee) are merged in the specifiers of eponymous functional heads. While these heads are not spelled out in verbal projections in English, Bowers argues that they are spelled out in various types of English derived nominals. For example, the Ag(ent) head which selects the Agent argument of transitive and unergative predicates is spelled out as *-e/or* in agent nominals such as the [*consignor (to Sotheby's) (of this major painting collection)*]. Likewise the Th(eme) head is realized as *-ment* in result nominals such as *The [consignment to Sotheby's] was revealed to be a Rembrandt*, and the Aff(ectee) head as *-ee* in affectee nominals such as *the [consignee of the collection]*.

Bowers presents two ingenious arguments based on noun incorporation for the order in which arguments are introduced into the derivation in the framework of Bowers (2010). The first argument comes from the order of incorporated arguments. In agent nominals, this order reflects the order Bowers assumes for Merge of arguments (root < Agent < Theme < Affectee), so [*Aff auction house [Th painting [consignor]]*] is acceptable, but *\*painting auction house consignor* is not. The second comes from event nominals, where all three arguments can be incorporated in the predicted order: [*Aff auction house [Th painting collection [Ag museum curator consignments]]*].

In the context of the present collection of papers, Bowers' contribution is particularly noteworthy in that it presents a comprehensive theory of nominalization. For Bowers, derived nominalizations involve a structure fully parallel to verbal projections, with the full array of argument-introducing functional heads; the nominal properties of the projection are associated with a Nom head (spelled out as *-ment* in event nominalizations) selected by D and selecting AffP. Gerunds, in contrast, following the approach in Bowers (1993), involve light verbal heads up to the level of Pred (roughly equivalent to *v* in the framework of Chomsky, 1995).

Andrew Carnie's paper on "Mixed Categories in Irish" studies the phenomenon of "mixed category" verbal nouns in this language. Unlike previous accounts of such verbal nouns in Irish, Carnie argues that nominal characteristics of these categories follow from two distinct sources: one group of verbal nouns (referred to by the author as "argument verbal nouns," AVNs in short) exhibit nominal properties (more specifically, "outwardly" nominal and "inwardly" verbal behavior) because (following Borsley and Kornfilt, 2000) they have nominal functional morphology dominating verbal structure. In the other group ("predicative verbal nouns," in short PVNs), there is no nominal functional structure; according to Carnie, the "nominality" of these verbal nouns is epiphenomenal; the author claims that PVNs do not have nominal functional categories at all, but are untensed verbs. He further claims that the relevant nominal properties of this second group—in particular, the genitive morphology of the objects of certain limited types of PVNs—are the effect of a repair strategy using an inherent case strategy, encoded in a dissociated morpheme condition within the Distributed Morphology framework. This comes into play when a structural case position is unavailable due to a variety of causes (e.g. the unavailability of a case licenser), including idiosyncratic selectional effects.

Herd, Macdonald, and Massam's paper, "Genitive Subjects in Relative Clauses in Polynesian Languages," has points of contact with the contributions by Baker, Cole and Hermon, and Miyagawa in that it examines the syntax of genitive subjects in structures (relative clauses) with nominal external syntax but verbal internal syntax. The position of genitive subjects in Polynesian languages shows them to be clearly external to the clausal projection, in that the relative clause head may intervene between the genitive subject and the rest of the relative clause. Even more strikingly, Herd, Macdonald, and Massam argue that the genitive subject can be derived neither by raising out of the relative clause nor by conventional control of the thematic subject position inside the relative clause. Instead, they argue that the genitive subject is merged outside the relative clause, and stands in a relation of "semantic control" with the subject theta role. The base generation analysis is analogous to Baker's analysis of genitive subjects in Sakha gerunds.

Shigeru Miyagawa's contribution on "Genitive Subjects in Altaic and Specification of Phase" focuses primarily on the issue of how the genitive case of subjects in nominalized clauses in a number of Altaic languages is licensed. The study also deals with the phrasal architecture of nominalized clauses, proposing correlations between the phrasal "height" of those clauses and the licenser's distance from the genitive subject.

One of the specific claims of this study is that in Dagur, a Mongolian language, the genitive subject is licensed by D while in Turkish it is licensed by C. For the genitive subject in Japanese, previous literature has proposed both D-licensing as in Dagur and C-licensing as in Turkish. Miyagawa argues against the C-licensing approach in Japanese for genitive subjects, and he develops a D-licensing analysis that resembles Hale's (2002) D-licensing analysis of Dagur genitive subjects. Hale argued that the verbal inflection when the genitive subject occurs is not simple tense, but rather aspect. Miyagawa modifies this approach for Japanese, showing that the relevant inflection in Japanese relative clauses involves defective T. In both the Dagur and Japanese case the consequence is that subject is accessible to the head of the higher DP; the D-head of that DP therefore qualifies as the (nominal) licenser of that subject's (nominal) case, i.e. of its genitive case. In contrast, in Turkish, in Miyagawa's analysis the nominalized clause projects higher, i.e. up to CP, and is thus a phasal domain. A clause-external D would therefore not be local with respect to the clause's subject and would be unable to license that subject's genitive case (for arguments supporting CP-status of Turkish nominalized clauses, cf. Kornfilt, 2000, 2003, 2006, 2008, with the latter taking an approach to cross-Turkic subject case licensing and clausal architecture rather similar to Miyagawa's present cross-Altai analysis). Instead, the C itself licenses the subject's genitive by virtue of being local to the subject and by hosting relevant nominal features (which are inherited by T). Miyagawa also accounts for the so-called "transitivity restriction" in Japanese. This is the restriction that forbids accusative objects from occurring in structures that have the genitive subject; if the subject is nominative, there is no problem with such an object. Miyagawa adopts Alexiadou and Anagnostopoulou's (2001, 2007) "subject-in situ generalization" (SSG), which states that by Spell-Out,  $\nu$ P can contain only one argument with an unchecked Case feature. A typical case of the SSG is found in a construction where both the subject and the object can stay in situ in  $\nu$ P; if both have structural Case, the sentence is ungrammatical. A&A (2007), based on Watanabe (1996), point out that the SSG can account for the transitivity restriction in Japanese if we assume, following Watanabe, that the genitive subject, but not the nominative subject, stays in situ in Spec,  $\nu$ P. Both the subject and the object then receive Case within  $\nu$ P before Spell-Out in violation of the SSG.

Cole and Hermon, in their paper "Nominalization and Case Assignment in Quechua," offer a detailed description of the patterns found with respect to nominalization types as well as subject and (direct) object case marking in a variety of Quechuan languages, and they offer an empirically wide-ranging account of these patterns, based on a theoretically updated version of B&K's (2000) model of syntactic nominalization. As mentioned earlier, that model's basic proposal is to derive the external and, especially, internal case marking patterns from the phrase-structural level at which "nominalization" applies, i.e. the level at which a functional projection is headed by a nominal element (with the proviso that such a nominal functional projection can dominate verbal projections, but can itself be dominated only by other nominal, and not verbal, projections). A genitive subject is located in the specifier of a nominal projection, while a nominative subject is in the specifier of a verbal projection. A direct object will have its accusative case licensed by  $\nu$ ; if the direct object is the complement of a nominal functional element heading a functional projection lower than  $\nu$  (for details, see below), the case licensed will be some default "nominal" case, usually realized cross-linguistically as null.

Working within this framework, C&H succeed in capturing a wide variety of "nominalization" and case patterns not only in the Quechua languages, but also in other languages such as Basque, and possibly also Japanese. They address what they suggest is a Quechua version of the "transitivity restriction," a central concern of Miyagawa's article, as we saw above. In some varieties of Quechua, when the subject is genitive (rather than nominative), the direct object is in the default case, which is null in Quechua. C&H account for this by placing the level of "nominalization," i.e. their NomP, below the  $\nu$ P (between  $\nu$ P and VP). Given the B&K model and their assumptions just mentioned, this forces all higher projections (including  $\nu$ P) to be nominal. Since object case is licensed by little  $\nu$  (in C&H's adaptation of the B&K model), a nominal  $\nu$  will license default (i.e. in Quechua, null) case to its object. A nominal aspect phrase projection (which is nominal, because it is higher than the nominal  $\nu$ P, and because, as mentioned earlier, nominal functional projections cannot be dominated by verbal functional projections) then licenses genitive case to the subject.

This account of the "transitivity restriction" is quite simple and elegant, and treats the case distribution of genitive subject–non-accusative object as one instance of a variety of expected patterns. Could C&H's approach be extended to cover the Japanese version of the "transitivity restriction," or is the superficial similarity of the Quechua and Japanese patterns, in fact, the product of significantly different underlying systems? In the *Afterword* to this issue, we take up this question.

In his paper, "What's Nominal About Nominalizations," Eric Reuland explores the question of how and whether the categories noun and verb are distinguished at the point where they are introduced into a syntactic structure, and how the distinction applies to nominalizations. He argues against the view associated with Distributed Morphology (Halle and Marantz, 1993; Marantz, 1997) that roots enter the derivation unspecified for category, selected by a category-fixing  $\nu$  or  $n$  functional head. Instead he adopts the proposal of Vinokurova (2005) that verbs and nouns are distinguished by a basic semantic property: verbs are relational, nouns are not. Reuland refines this proposal to state that verbs represent relational concepts for which "merging instructions are defined"; this has the consequence that arguments selected by verbs must be syntactically realized.

Applying this framework leads to the following classification of nominals, including nominalizations: basic nouns lack internal relational structure. Simple event/result nominals (e.g. *destruction/creation*) lack articulated theta structure and merging instructions. Complex event nominals (*the destroying/creating of the set*) have articulated theta-structure but block assignment of merging instructions. Reuland argues contra Grimshaw (1990) that arguments of English complex event nominals may be omitted in appropriate contexts. Nominal infinitives as in Dutch have an articulated theta-structure and assign accusative case but also block assignment of merging instructions, thus also allowing omission of arguments.

In contrast to the three preceding types of nominalizations, gerunds involve an inflectional “nominalizing” suffix (English *-ing*) that applies in the syntax (Reuland, 1983). Gerunds, like complementizers, belong to a class of elements which license verbal projections to appear as arguments.

Taken together, the seven contributions to this issue delimit four major topics which define the theoretical domain of nominalizations and touch on additional basic issues in the theory of grammar. The first is the theory of syntactic categories. The papers by Baker, Bowers, and Reuland all adopt and defend specific positions on this issue.

The second has to do with the typology of nominalizations. As we have seen, the B&K framework offers the possibility of a detailed typology of nominalizations depending on the point at which a nominal functional projection is introduced into the structure. Baker, Bowers, and Reuland provide partial typologies of this sort based on the data they examine. But more broadly, do we find actual attestations of nominalizations at all “heights” made theoretically possible by the framework?

A third issue with both syntactic and clausal nominalizations was mentioned at the outset of this introduction, but is not addressed directly by the papers in this special issue. This is the issue of assuming the existence of external nominal heads that take a verbal (typically functional) projection as their complement in the analysis of nominalizations. The advantage of such an assumption is mainly the avoidance of the problem for endocentricity posed by *mixed* extended projections. As a matter of fact, some recent analyses of clausal nominalizations across languages do make that assumption, based on either empirical or theoretical reasons. Given that this issue is of theoretical interest, as well as being linked to our second issue mentioned above, we address it in the *Afterword*.

The final topic has to do with the internal syntax of nominalizations. When and why do consequences such as “nominal” (e.g. genitive) case marking follow as a consequence of nominal structure? The articles by Baker, Bowers, Carnie, Herd, Macdonald and Massam, Miyagawa, and Cole and Hermon all take up this issue in different ways. In the *Afterword*, we examine each of these topics in light of the important contributions that follow.

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