Preface

The chapters in this volume grew out of papers presented at the workshop "Nominalizations across Languages" that we organized at Stuttgart University, Germany, in December 2007. It was a lively and engaging workshop, with many good papers – in fact too many for a single volume. We decided to split the papers in two volumes, one focusing on the syntax of nominalizations (the current volume, IE 23), the other one focusing on the semantics of nominalizations (IE 22). The split reflects nicely the kinds of contributions we received, although we want to stress that there are, of course, many overlapping and unifying questions.

The current volume IE 23 explores the syntax of nominalizations, focusing on deverbal and deadjectival nominalizations, but also discussing the syntax of genitives and the syntax of distinct readings of nominalizations. The volume investigates the morpholgy-syntax interface as well as the semantics-syntax interface in the domain of nominalizations. The theoretical frameworks include distributed morphology, and minimalist syntax. Data from a variety of languages are taken into consideration, e.g. Hebrew, Bulgarian, Serbian, French, Spanish, German and English.

It was an enormous pleasure for both of us to prepare the volumes. We would like to thank our authors for their contributions, we have benefited enormously from reading their chapters. Many thanks also to our reviewers for their insightful and insipiring comments.

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Contributors

Artemis Alexiadou is Professor of Theoretical and English Linguistics at the Universität Stuttgart. Her research interests lie in theoretical and comparative syntax, with special focus on the interfaces between syntax and morphology and syntax and the lexicon. She is currently working on nominal structure and verbal alternations. She has published work in *Linguistic Inquiry*, *Natural Language and Linguistic Theory*, and *Studia Linguistica* among others.

Monika Bašić is a PhD student at the Center for Advanced Study in Theoretical Linguistics (CASTL), University of Tromsø. She is interested in various aspects of syntactic theory, particularly in constraints on syntactic movement operations. She has published and presented work on topics including left branch extractions, the structure of prepositional phrases, verbal morphology in Slavic, and nominalizations. Her main focus is on Slavic language family.

Ana Maria Brito is a Full Professor at the Faculdade de Letras da Universidade do Porto, Portugal. PhD in Portuguese Linguistics in 1988, with a dissertation on the syntax of relative clauses. She is one of the authors of the *Gramática da Língua Portuguesa* (Caminho, Lisboa, 2003), and author of circa 60 papers on different aspects of Portuguese syntax in a comparative perspective, mainly on nominal phrases, possessives, deverbal nominalizations, relative clauses, canonical comparatives.

Antonio Fábregas is Associate Professor of Spanish Linguistics at the University of Tromsø. His research has focused in the analysis of morphology and morphological processes from a syntactic perspective, as well as in semantics and pragmatics. He has collaborated in the *New Grammar of Spanish* (2009) from the Spanish Royal Academy of Language and has published papers on relational adjectives, degree achievements, exocentric compounds and prefixation, among other topics.

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Cooperation in Science and Technology (COST) within COST Action A33 ('Crosslinguistically Robust Stages of Children's Linguistic Performance'). She is interested in comparative nominal syntax between Slavic (e.g. Bulgarian), Romance (e.g. Spanish and Catalan) and Germanic (e.g. English) together with the linearization of verbal and nominal affixes in Slavic. More precisely, she has centered her investigation in the hierarchy of functional projections dominating the noun head and the contribution of the verbal prefixes within a nominal. Her PhD dissertation is entitled 'The role of prefixation in the nominalizing process' and is currently under revision.

Isabelle Roy recently completed a post doc at the Center for Advanced Study in Theoretical Linguistics, Tromsø, Norway and is now an Assistant Professor in Theoretical Linguistics at the UMR 7023 'Structures Formelles du Langage', Université de Paris 8 – Saint Denis. Her research interests lie in theoretical and comparative approaches to the syntax-semantics and the syntax-lexicon interfaces with a particular interest in predication, complex predicates, stativity and nominalizations.

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Florian Schäfer's research interests lie in theoretical and comparative syntax, especially in the interfaces between syntax, semantics, morphology and the lexicon. He received a Diploma in Theoretical Linguistics from the University of Potsdam and a PhD in Linguistics from the University of Stuttgart. Since 2007 he has been working as a post-doctoral researcher at the University of Stuttgart on a project on nominalizations. He has published papers in *Language* and *Linguistics Compass*, the proceedings of *NELS* and *WCCFL* and several edited collections.

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Petra Sleeman is working in the department of Romance linguistics of the University of Amsterdam. She was a guest lecturer at the University Paris VII, the University Paris III, and an invited professor at the University Lille 3. She graduated in 1996 with a thesis on nominal ellipsis titled Licensing Empty Nouns in French, which was supervised by Aafke Hulk and Denis Delfitto. Petra Sleeman's main research topic is the French DP: the position of adjectives, adjectival agreement, noun ellipsis, relative clauses, the partitive construction, definiteness, deverbal nominalization and deverbal adjectivalization, and dislocation and focalization of DPs. Furthermore, she has done research on the acquisition of dislocation, definiteness, and clitic placement in L2 French.

Torgrim Solstad (PhD, University of Oslo) is a researcher in Theoretical and German Linguistics at the University of Stuttgart. Currently, he is employed in two projects dealing with verbs and their nominalizations on the one hand and foundational aspects of ambiguity and disambiguation on the other. Focussing on underspecification and the syntax-semantics interface, he is particularly interested in lexical semantics, argument realization, word formation and adverbial syntax and semantics.

Introduction

Artemis Alexiadou and Monika Rathert

Nominalizations have been central in linguistic research, as they constitute an instance of structures showing categorially ambivalent behavior. The most comprehensive work on English nominalizations to date is certainly Grimshaw (1990) who argues that deverbal nouns do not form a homogeneous class. As (1) illustrates, nouns such as *examination* are ambiguous between an event reading that supports argument structure (AS), and a non-event reading that does not. (1b) is taken to instantiate the referential use of the nominal, while (1a) instantiates the AS use.

(1)   a. the examination of the patients took a long time
        b. the examination was on the table

Nominals formed via *-ation* are not the only ambiguous ones in English. Nominals formed via *-er* (e.g. *destroyer*) are ambiguous between an agentive reading on which they license AS (*the destroyer of the city*) and an instrumental one on which they do not (*destroyer = warship*). Similar observations hold for *-ing* nominals (e.g. *this is a good reading* and *John's reading the poem surprised us*. Table 1 summarizes the criteria Grimshaw introduced to distinguish between the two types of nominals in English:

Table 1.

Referential Nominals (RNs)	Argument structure (AS)-Nominals
non-θ-assigner, no obligatory arguments	θ-assigners, obligatory arguments
no event reading	event reading
no agent-oriented modifiers	agent-oriented modifiers
subjects are possessives	subjects are arguments
by phrases are non-arguments	*by* phrases are arguments
no implicit argument control	implicit argument control
no aspectual modifiers	aspectual modifiers.
modifiers like *frequent, constant* only with plural	modifiers like *frequent, constant* appear with singular
may be plural	must be singular

In the research on nominalization, we can recognize two main models which attribute the AS in the nominal domain to two different aspects of representation: the lexicalist model and the structural model. Representatives of the former model, e.g. Grishmaw and certainly many others, claim that the noun inherits the AS from the embedded verb, and this type of transformation happens in the lexicon. Specifically, in order to explain the ambiguity in (1), Grimshaw claims that this is only possible in the presence of an event argument in the lexical representation of the noun.

On the other hand, the structural model holds that the presence of AS follows from the presence of a VP node (or perhaps some functional projection of VP) inside the nominal structure, see e.g. (Alexiadou 2001), (Borer, to appear) and others. The main idea behind the structural model could be described as follows: it is the syntactic structure that gives rise to an event template which in turn determines the interpretation of arguments. In other words, the event interpretation arises through the presence of verbal functional layers in the nominal structure and is not part of the lexical entry. All our contributions here adopt variants of the structural model.

Importantly, both the lexical and the syntactic model converge in the idea that AS nominals are those nominals that inherit the AS of the verb embedded within them. This suggests a very concrete relationship between morphology and meaning. Only nominals that have been verbs as part of their derivational history can license AS.

Work within the framework of Distributed Morphology, but also Borer (to appear), following crucially (Abney 1987), suggests that nominalizers can embed structures of variable size. When the affix embeds just a root, i.e. when it attaches low, lack of AS and of eventive readings follow, since nothing is there to license AS. When the affix embeds a more complex structure which contains a number of functional projections bringing about an eventive interpretation, then AS is licensed. In other words, the difference in the height of attachment of the affix gives the different readings (event vs. result). High attachment signals an event reading and the licensing of AS, while low attachment signals a result reading and the absence of AS.

Still, however, derived nominals seem to be somehow deficient in comparison to their verbal counterparts. This 'deficiency' relates to the non-obligatoriness of the presence of AS within nominals. A more recent concern is that even if the nominal lacks an event interpretation, its morphological decomposition suggests that it contains verbal layers (Alexiadou 2009, Harley 2009). This suggests that the layers responsible for the licensing of AS have to be dissociated from the layers that simply verbalize a structure.

In addition to the licensing of AS, an important aspect that several researchers have been investigating is affix rivalry, i.e. the competition between two or more affixes and the properties they are sensitive to. For instance, in English, nominal *-ing* attaches to all sorts of root types, i.e. manner, result, but also statives (*smearing vs. opening vs. knowing*). On the other hand, the suffix *-ation* is rather particular in terms of transitivity. Smith (1972) discusses English verbs displaying a causative/inchoative alternation that nominalize without (overt) affixation. Smith points out that these verbs never nominalize as "transitive" nouns, but only as nouns with a possessive alone, see also (Chomsky 1970). Examples include *change, end* and *stop*, which form nominals, but not transitive ones. The generalization is visible in these contrasts: *the climate's change/*global warming's change of the climate*; *the race's end/*the judge's end of the race*; *the train's unscheduled stop/* the guard's unscheduled stop of the train*. Smith argues that the ability to derive "transitive" causative nominalizations from "intransitive" causative verbs is limited to affixes drawn from the Latin vocabulary and is not observed in the Anglo-Saxon vocabulary of English. Thus *alteration* contrasts with *change*, *termination* with *stop*, and *conclusion* with *end*.

The papers in this volume address all of the above issues and introduce further and finer distinctions in nominalizations. Let us briefly summarize their main contributions.

Alexiadou and Schäfer are concerned with the semantic and morphosyntactic properties of *-er* nominalizations in English. They argue that one should distinguish between two groups of *-er* nominals: those that obey the external argument generalization, irrespectively of whether they are eventive or not, and whether they have complements or not, and those that do not obey the external argument generalization. The first group *-er* nominals sub-divides into episodic ones, which always project their internal complements, and dispositional ones, which may leave these objects unexpressed. The authors argue that both episodic and dispositional nominals have the exact same rich syntactic structure, namely they are derived from verb phrases. They differ as far as their aspectual properties are concerned, a property from which they derive from the presence vs. absence of complement structure. The second group contains *-er* nominals that are not fully productive and thus has a poorer syntactic internal structure. Specifically, these involve affix attachment at the root level and not contain any verbal layers.

Bašić investigates the morpho-syntactic properties of nominalizations in Serbian. Taking as a starting point the observation that the presence of ver-

bal morphology is evidence that verbal projections are present, then considering that RNs can contain the same morphological markers, one has to conclude that these functional projections occur inside RNs as well (see above). Thus, while their semantic and syntactic properties suggest that AS nominals and RNs have different structural representations, morphological evidence seems to suggest the opposite. She argues that (i) RNs (may) contain 'verbal' functional layers, (ii) RNs do not however contain eventive little *v* and (iii) the differences between AS nominals and RNs can be made to follow from distinct structural representations, despite morphological identity between the two types.

Fábregas is concerned with the problem that apparently equivalent affixes in e.g. Spanish compete to derive words of a certain class, in such a way that, seemingly, different bases require different affixes. He pursues a syntactic approach not only to word formation, but also to affix rivalry, and he shows evidence that the choice between the three productive nominalizer suffixes is not idiosyncratic or motivated by general principles of parsing, but is due to the syntactic and (structural) semantic properties of the base. His approach makes clear predictions with respect to the properties of the event nominalizations constructed with different affixes. In particular, structural properties of the verb, and their semantic reflects, determine the distribution of an affix. Thus, if a verb allows more than one construction, we expect this verb to have more than one event nominalization with specific syntactic-semantic properties. As a result, the event nominalizations will have different syntactic and semantic properties depending on the affix used.

Markova provides a syntactic analysis of deverbal nominals in Bulgarian. Her starting point is the assumption that word formation is syntactic and functional and that a categoriless root is spelled out as a noun, adjective, or verb, depending on the functional layers that dominate it (Alexiadou 2001). However, she shows that sometimes a stem and not a root must be inserted in syntax. A crucial factor for the derivation of nominals is the status of nominalizers within the nominalizing process. Markova claims that in Bulgarian they can appear in the form of gender suffixes or various derivational suffixes marked for gender. Thus, the proposal is that noun formation results from the merger of a nominalizing head nº with an XP where XP can be a categoriless root (√P) or a verbal stem (VP), AspP, or VoiceP. It is also shown that nouns differ depending on the functional layers they contain and on the feature specification of these layers, as suggested in Alexiadou (2001).

Roy's paper is concerned with a rather neglected area in the research on nominalizations, namely de-adjectival nominalizations in French. She shows that the formation of deadjectival nominals is constrained in a very system-

atic way by the (semantic) type of the 'base' adjective, restricting them to intersective adjectives only; i.e., descriptively, to those found also in predicative positions. This generalization finds a simple explanation if one assumes a dual source for the adjective. Adjectives that can be used predicatively (henceforth, predicative adjectives) are generated in a predicative structure (PredP), even when they appear as N-modifiers; whereas adjectives that can never be used predicatively (henceforth, attributive adjectives) are generated in a simple AP. Assuming a syntactic view on word formation, the nominalizing suffixes are the realization of a predicative head in the nominal domain, reducing, thereby, the class of adjectives that can form the base of a nominalization to the ones that are generated in a predicative structure. As mentioned above, it has been claimed for deverbal nominals that the realization of nominal arguments correlates with an event reading, and in recent syntactic accounts, both are related to the presence of an underlying verbal structure. Roy points out that if the formation of nominals from adjectives is in any way comparable, and if all deadjectival nominals must have a predicative base, one would expect all deadjectival nominals not only to have arguments but also to have an eventuality reading. However, Roy shows that deadjectival nominals belong to two classes with distinct properties; in particular one which does support argument structure and an eventuality interpretation and another one which, prima facie, does not.

Sichel's contribution provides a preliminary delineation of the particular sense or senses in which nominalization and derived nominals are deficient. She argues that in addition to pure morpho-syntactic deficiency, derived nominals in English are also deficient in the sort of events they can host and are restricted to simple, single events. They contrast, in this respect, with ING-OF nominalizations, which are similarly deficient in their range of purely morpho-syntactic projections, but are not constrained in terms of the kinds of events they can host. A glimpse of the difference can be seen in that while both derived nominals and ING-OF gerunds exclude particle-shift, the particle is possible without shifting in ING-OF gerunds but not in derived nominals. Taking particles to add an end-point or result component to an activity, this suggests that ING-OF gerunds may denote complex events while derived nominals may not. Particle shift, from this perspective, would require additional morpho-syntactic structure. A further point is the agent exclusivity in English and Hebrew nominalizations. Sichel defines the relevant notion of agency in temporal terms leading to event-identification and the restriction to single, simple events. She then suggests that restrictions on nominal passive in English are understood as just another case of event simplicity in derived nominals.

Sleeman and Brito build on earlier work where they argued that more than two readings can be distinguished for nominalizations. They distinguish five readings, which are connected not only to different aspectual readings, but also to the expression of argument structure. As is the case with other contributions to the volume e.g. Bašić and Fábregas, Sleeman and Brito propose, following Ramchand (2008), that the *v*P can be split up in various functional projections: Initiator Phrase, Process Phrase and Result Phrase. In the specific case of nominalizations, they argue that the split *v*P hypothesis can account for the five readings distinguished in their earlier work.

Solstad investigates the ambiguity associated with the genitive DP within nominalizations. As is well knonw, adnominal genitives and prepositional phrases (PPs) have a wide range of interpretations. For instance, they may be interpreted as arguments of an event nominalization or a relational noun. They may also express possession or some general associative relation. In a number of analyses, the difference between the interpretation of a genitive as corresponding to a theme or agent argument of a verb underlying a deverbal nominalization on the one hand, and the interpretation of a genitive as a possessor is assumed to have a syntactic correspondence. Thus, for instance, for genitive theme arguments, a syntactic position parallel to that of the direct object of verbal projections is assumed (correspondingly, a separate position may be assumed for agent arguments). For possessives or other associative genitives, however, a different position is assumed, possibly as a sister of a nominal head or adjoined to the noun phrase. Solstad argues that in German, post-nominal genitives should all be analyzed uniformly syntactically as well as semantically. The main claims of his approach may be summarized as follows: all post-nominal genitives and PPs are adjoined to NPs, assuming DP to be the highest functional projection dominating a noun phrase. All post-nominal genitives are represented semantically by the underspecified two-place relation ρ(rho). Being underspecified, this relation may be instantiated differently, which is what gives us the different interpretations of post-nominal genitives. For PPs the semantic picture is somewhat more diverse, but still compatible with this assumption.

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