Nominal Modification

Johann Wolfgang Goethe-Universität Frankfurt am Main

Prof. Dr. Caroline Féry

Proposed funding period: 01/10/2014 – 31/03/2019
Submission deadline: 15 October 2013

15th October 2013
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## General Information

### 1.1 Title in German and English

Nominale Modifikation / Nominal Modification

### 1.2 Host university

Johann Wolfgang Goethe-Universität Frankfurt am Main
Grüneburgplatz 1, 60629 Frankfurt am Main, Germany

### 1.3 Participating researchers

Designated spokesperson: Prof. Dr. Caroline Féry

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<td>Phonology (intonation, variation), Syntax-prosody interface, Optimality Theory, Processing of prosody</td>
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<td>Dialectal Italian syntax, Diacronic Romance syntax, Dialectal syntax of Germanic linguistic islands in Northern Italy</td>
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### Associated researchers

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1.5 Summary in English and German

The principal goal of the Research Training Group (RTG) is to establish a sustainable and internationally visible research platform in the humanities, focusing on nominal modifications with a cross-modular and a cross-linguistic perspective. Within a clearly defined temporal framework, this platform will provide young scholars with an optimal research environment for the pursuit of their dissertation topics and the acquisition of professional skills of central relevance to their future careers in academia and beyond.

The research programme of the RTG covers three major aspects of nominal modification: First, the internal syntactic structure of nominal phrases with regard to synchronic and diachronic diversity, as well as processing and acquisition will be studied, particularly addressing the problem of functional layers within the DP and the elements hosted there. In this regard, the processing and acquisition of complex nominal expressions will also be in the focus of the RTG.

Second, the external structural properties of modified nominal phrases are investigated with an emphasis on the phenomena extraposition, discontinuity and non-locality. Here, the main aim is to explore the factors influencing the choice of alternative constructions by conducting interdisciplinary research in relevant fields including syntax, phonology and pragmatics. The third main research question deals with interpretive aspects of modification, where the compositionality challenge presented by non-locally interpreted modifiers is addressed. Furthermore, differences between various kinds of local modification are investigated; in particular, cognitive explanations for the overall preference of modification by intersection and subsective modification in general will be sought.

In addition to offering coursework on an advanced level, the RTG’s qualification programme aims to establish a strategy of diversified supervision: Each doctoral candidate will be supervised by at least two participating researchers (PRs) and guided by an Academic Advisory Committee. Furthermore, mentoring and mutual counselling will be pursued in peer groups created by the doctoral students, the two appointed junior researchers (post-docs) and associate researchers. All of them will also be involved in the organization of colloquia and international conferences. The RTG will cooperate with the University of Pennsylvania where RTG members will have an opportunity to participate in an exchange programme for one semester. The RTG will also cooperate with Goethe University’s graduate academy GRADE, which provides support in regard to structured doctoral education and offers additional training, consulting, and networking events.


1.6 Funding period and start date

Proposed funding period: 01/10/2014 – 31/03/2019
Anticipated start date: 01/10/2014

1.7 Proposed number of doctoral and postdoctoral researchers, qualifying fellows, and student assistants

Number of fellowships for doctoral researchers to be funded: maximally 12
Number of positions for post-doctoral researchers to be funded: 2
Expected number of doctoral and post-doctoral researchers participating with funding from other sources: 10 doctoral and 5 post-doctoral researchers
Student assistants: 2

Propositionen
2 Profile of the Research Training Group

2.1 General

Over the last ten years, the group of linguists in Frankfurt has initiated several large-scale joint research projects, some of which have been successfully completed and some of which are in progress. Because research conditions here are productive, diversified and successful, we are convinced that the establishment of a graduate RTG is timely. New cross-modular competence is to be developed jointly with the younger generation. Cross-modularity has already been a guiding principle behind the Research Unit on relative clauses (Forscherguppe Relativsätze), which was established in 2011 and comprises eight projects that study the different types of relative clauses from different perspectives. The planned RTG will allow this fruitful collaboration between different research perspectives to be anchored in teaching and in dissertations co-supervised by established PRs and associate researchers.

The overall topic of the RTG provides an ideal field of joint research for young linguists at different stages of their formation and career. Nominal modifications are defined as category-preserving operations within nominal constituents. These can be studied from a number of perspectives (cf. section 3): semantics, syntax, phonology, psycholinguistics, historical linguistics, and language typology. Many particular phenomena – from the basic order of constituents to the meaning of adjectives – have long been the objects of detailed studies with results typically confined to one particular grammatical module; others – like the relation between restrictive and non-restrictive modification – come with a history of longstanding and inconclusive debates. As a rule, these investigations were carried out from within particular sub-disciplines, with little or no relation to the neighbouring fields. What is missing, then, is a combined effort of cross-modular research on nominal modification. In the light of the PRs’ competences and research profiles (see below), Frankfurt is a natural place to fill this gap. An excellent forum for bringing up novel research topics and ideas, drafting joint projects, and planning new cross-disciplinary seminars, this research facility should provide an ideal environment for a graduate RTG on the more general topic of nominal modification.

It is the intention of the RTG to create new avenues of supervision and training for linguists, to encourage them to go beyond a single branch of linguistics both in their academic training and in choosing a topic for their dissertation. The RTG aims at bringing together a selection of the most talented students from top linguistics departments within and outside Europe. Recruitment will be subject to close scrutiny, taking into account talent, interest, background, diversity and internationality, as well as willingness to endorse cross-modularity. To ensure an optimal interaction between representatives of different sub-disciplines, supervision of graduate students will be organized in the form of project groups. Each group will bring together a handful of students, supervised by several researchers working on the same or closely related phenomena, albeit from different perspectives and backgrounds, and with different methodologies whenever applicable. Since the RTG is going to be open for all Frankfurt linguists interested in the topic, associate researchers and post-docs, too, will take advantage of it. The combined competences of the Frankfurt linguists will give rise to new and innovative research both from a methodological and a conceptual perspective. The intention is that the next generation of linguists will profit substantially from the expertise concentrated in Frankfurt.

To ensure that all students receive the best possible interdisciplinary graduate-level education, the RTG will provide a thorough training in the disciplines involved, with a central focus on grammatical theory (see section 4). While the students’ initial background will be acknowledged, the RTG will ensure highest-level training also in the areas that were not previously studied at the Bachelor, Diploma, or Master level.

The graduate programme will involve a co-operation with the linguistics department of the University of Pennsylvania. Every year, up to three graduate students may participate in an exchange programme. During their stay abroad, students will participate in the graduate programme and research projects of the partner university, supervised by UPenn faculty members. We expect a close collaboration in the core research areas that are represented in both departments: formal semantics, syntax, psycholinguistics, historical linguistics, and phonology. In
addition to student mobility, the co-operation will also involve teaching and research stays at the partner university.

Furthermore, the Goethe University’s Graduate Academy GRADE – the university’s central graduate academy catering to doctoral students and post-docs – will provide structured training in research-related skills for all fellows of the graduate programme. The RTG will be a founding pillar in the cross-disciplinary research-oriented GRADE Centre “Language” and thus firmly integrated into a reliable and enduring context of doctoral education at Goethe University.

An answer to the reviewers of the application draft will be found in Appendix III.

### 2.2 PRs and associated researchers

One of the strengths of the Frankfurt linguistics group is its expertise in, and further potential for, innovative research at the grammatical interfaces. In the last decade, the Frankfurt linguistics faculty has grown into a dynamic centre, with currently more than 10 full professors plus some 20 regular (university-funded) junior teaching and research positions. Internationally known researchers represent nearly all aspects of linguistics. This group of researchers will be dedicated to cross-modular research in the realm of nominal modification. They will encourage young researchers to explore new avenues joining empirical and theoretical investigations, to be active in the creation of national and international networks in their area of specialization, in short to become accomplished scientists exploring language in innovative ways.

**Markus Bader** (Psycholinguistics) investigates syntactic and interpretive processes, case and argument structure in language comprehension, the role of implicit prosody in reading, and processes in sentence interpretation. **Caroline Féry** (Phonology) studies sound structure in its interface with syntax and semantics, prosodic structure and intonation of different languages. **Jost Gippert** (Comparative Linguistics) studies Indo-European and Caucasian languages, both from a synchronic and a historical point of view, and the application of computational methods in corpus building and the study of manuscripts. **Shinichiro Ishihara** (Phonology, Syntax) investigates various issues related to the syntax–prosody interface and information structure. **Cécile Meier** (Semantics) studies the syntax–semantics interface (comparatives and locatives) and the effects of discourse structure on the realization of sentence structure and logical form. **Cecilia Poletto** (French and Italian Linguistics) studies the syntax of Romance varieties in a geographical as well as diachronic dimension of minimal variation. **Henning Reetz** (Phonetics) works on the mental representation of speech in the human brain and how the physical properties of sound waves are converted to linguistic units. **Esther Rinke** (Ibero-Romance Linguistics) focuses on the diachronic development of syntactic structures in the Romance languages, for instance word order variation. **Manfred Sailer** (English Linguistics) explores the syntax–semantics interface and the interplay of regularity and idiosyncrasy in language, using formal, computational and corpus-linguistic methods. **Petra Schulz** (German as a Second Language) addresses the question of the universality and robustness of language acquisitional paths in different languages and acquisition types. **Gert Webelhuth** (English Linguistics) works on issues that shed light on the nature of the syntactic component and the lexicon, and the division of labour between the two. **Helmut Weiß** (History of the German Language) studies historical linguistics of German. His main research interests concern language theory in general like the question of what is a (natural) language. **Thomas Ede Zimmermann** (Semantics) has made various descriptive and foundational contributions to formal semantics, pragmatics, logic, and philosophy of language. Furthermore, a W2 syntax professorship is in the process of being advertised, and we expect that the new colleague will reinforce theoretical syntax.

The group of associated researchers attached to the RTG will complement the group of PRs with extended expertise both in theoretical aspects and empirical methods. **Assif Am-David** (Typology) investigates the typology of semantic structures. **Ingo Feldhausen** (Spanish, French and Catalan Linguistics) works on the relation between syntax and prosody in different Romance languages. **Jolanta Gelumbeckaitė** (Baltic Linguistics, Latin Linguistics) focuses on Lithuanian from a diachronical point of view and on computational methods in the study of Old Lithuanian texts. **Daniel Gutzmann** (Semantics) works on use-conditional meaning and conventional implicatures, modal particles and verum focus, and the pragmatics of quotation. **Gerrit Kentner** (Phonology) investigates the role of prosody in language production and comprehen-
sion. Anja Müller (Language Acquisition) works on language acquisition with a special focus on information structure. Manana Tandaschwili (Caucasian Linguistics) investigates the interaction of morphology and syntax in Kartvelian and East Caucasian languages. Heike Walker (Syntax) works on the syntactic and semantic properties of extraposition.

Furthermore, post-docs of the Research Unit on relative clauses will also be invited to participate in the RTG and will be involved both in activities (colloquia, invited lectures and talks) and in guidance of the students.

3 Research Programme

3.1 Definition of the research topic

Nominal modification is defined as any category-preserving operation on a nominal expression, where the term nominal expression is understood in a surface-syntactic sense. Typical nominal modifiers include adjectives, participle constructions, nominal appositions, prepositional phrases, relative clauses and (at least some) possessives, but exclude determiners and quantifiers (because they are not modifiers) and manner or sentential adverbs (because they modify non-nominal constituents). Hence we understand nominal modification as modification of (as opposed to by) nominal constituents (NPs and DPs). Furthermore, some closely related forms like degree adverbs or epithets may also be subsumed under the heading of nominal modification. Many types of modifiers share core characteristics, for instance typical ambiguities (restrictive vs. non-restrictive) and shifting positions (position of attributive adjectives, splitting and extraposition of nominal modifiers and/or heads). Thus the landscape of nominal modification covers a large variety of constructions and phenomena, which have in common that they serve to expand and elaborate nominal constituents. These characteristics show up at all levels of grammar and become particularly relevant at the grammatical interfaces.

The decision for nominal modification as an overarching topic was motivated by at least three main factors:

• First, with the subject of nominal modification we plan to address a current topic in linguistics that relates to most of the core areas of grammar. Because of its complex word order properties, nominal modification highlights the internal structure of constituents both in individual languages and from a cross-linguistic perspective. The question of why modifiers of a head noun prefer to be prenominal in some languages and postnominal in some others, and the question of the ordering of the modifications immediately relate to other syntactic properties of languages. These properties are not restricted to syntax, but also relate to prosody: the placement of (nuclear) accents in phrases as well as the formation of syntax-motivated prosodic domains play a role in syntactic structure, both at the level of constituents like nominal phrases and at the level of the sentence, as reflected in extraposition, dislocation, fronting and discontinuous phrases, for instance. Typological comparison, microvariation and diachronic development can shed some new light on these issues. Scopal and referential as well as phraseological idiosyncracies are among the semantic effects of nominal modification with consequences beyond the nominal domain; moreover, the overall semantic function of nominal modification shows some little-understood variation, like the distribution of subsectivity and intersectivity. Language acquisition paths and processing issues are crucial to understand what is simple and what is more complex in nominal modification: how do children acquire these structures? How do adults process these structures? In short, nominal modification comprises many crucial issues in linguistic research, and can be considered as a microcosm of grammar.

• The second factor is that, in our experience, well-defined classes of linguistic phenomena form ideal subjects for cross-disciplinary research. Nominal modification integrates all sub-disciplines of linguistics represented in Frankfurt: syntax, semantics, phonology, processing, acquisition, historical linguistics and typology. It is also ideal for simultaneous study from diverse perspectives. This insight was formed and corroborated both by the predecessor RTG (“Sentence types: variation and interpretation”, 2000–2010), which was devoted to differences between clause types, and by the current DFG-funded Research Unit 1783 on relative clauses,
established in Frankfurt in 2011. In various respects the current proposal is a natural expansion of the Research Unit, and puts it into a wider perspective. Itself a special form of nominal modification, a relative clause is a clause (CP) embedded in a nominal constituent (DP). The RTG will continue this successful research tradition by bringing together PhD students from various academic backgrounds to collaborate on a single overall theme under the supervision of experts from all relevant fields. The complexity of the theme makes it especially prolific in generating a number of research topics which are best scrutinized from different perspectives and with different methodologies at once. Let us note here a few specific aspects, which will be elaborated below. First, modifiers that are disconnected from their heads have always been challenging for linguistic theory. Phenomena like extraposition raise, among others, two important, unresolved questions: What are the precise licensing conditions for non-adjacency within a single language and across languages? How is it possible to combine the meaning of a modifier with its head when surface structure obscures this connection? We are convinced (and the literature corroborates this point of view) that such issues can only be successfully solved by taking a cross-disciplinary approach like the one that will be established in the RTG. The same is true for complications that come along with modification and recursion – one of the key features of human languages. An embedded CP that contains internally modified DPs is a syntactically recursive structure that needs to be converted to a recursive prosodic structure.

- The third factor concerns career advancement. Due to the interdisciplinarity of the theme of the RTG, a dissertation in nominal modification will be a good starting point for a successful scientific career. In a competitive market, cross-disciplinary competence is becoming increasingly important. Positions in linguistics are rarely specialized and researchers with a broad area of specialization will have an advantage. The RTG will provide conditions for students to meet the demands of an evolving market. The students will be encouraged to examine problems from different perspectives without being expected to become experts in all sub-disciplines of linguistics. The topics will be studied in teams, both from the students’ and from the supervisors’ side.

In 3.2 below, we begin with the general issue of the internal architecture of nominal phrases, since this has been the topic of a large number of studies in the past, and is expected to remain so in the future. In the following, we outline central domains of research to be pursued in the RTG, including diachrony, typology, acquisition, and processing.

Section 3.3 concerns external structural aspects of modified nominal phrases, with an emphasis on extraposition, discontinuity and non-locality. Here, factors bearing on the choice between continuity and extraposition or other kinds of discontinuity can be seen to straddle the borders between syntax, phonology and other parts of linguistics.

In 3.4, interpretive aspects of modification are summarized with a special emphasis on the strong bias for the subsectivity of adjectives. This part of the RTG is especially apt to cover interdisciplinary research at the crossroads between semantics, syntax and psycholinguistics.

Potential themes for dissertation topics are grouped together in section 3.5, which also addresses practical issues related to the integration of associated researchers, post-docs and student assistants. International co-operations in the framework of the research programme are also mentioned there. The exact selection of project themes will depend on the current state of the art as much as on the interests of excellent students. The list of research topics and of planned dissertations should thus not be seen as a definitive research plan; instead it ought to give an idea of how the general topic of the RTG can be broken down into smaller areas for cooperative PhD projects over the next few years.

3.2 Internal structure and syntactic layers of nominal phrases

3.2.1 Nominal phrases and generative syntax

The nominal domain has long been one of the main subjects of investigation of generative syntax (Chomsky 1981). Classical analyses of noun phrase structure in the framework of X-bar theory were successfully applied to a large number of languages. Expressions such as an outdoor swimming pool, all Siberian tigers, this man with blond hair have been analysed as maximal projections of the noun, as shown in (1); determiners, adjectives, quantifiers have been
analysed as specifiers or adjuncts to the noun within that projection (see also Grimshaw 2000 and the notion of 'extended nominal projection').

(1) \[ [\text{NP Article/Determiner} \ [\text{N} \ \text{AP} \ [\text{N N PP}]]] \]

Abney’s (1987) ground-breaking dissertation opened a completely different perspective by proposing that the determiner rather than the noun itself acts as the structural head of the nominal expression. In this approach, nominal expressions have a complex functional structure in which the projection of the noun is a complement of the determiner D°. Other functional projections such as Quantifier Phrase, Number Phrase etc., appear between D and N. Adjectives are analysed either as adjunctions or specifiers of the functional projections located between the DP and the NP of the nominal expression, or they may themselves occupy functional head positions in the nominal functional spine, as in (2); see for instance Bošković (2005a) and Zamparelli (1997). The noun itself can be further modified by PPs and CPs with an adjunct role.

(2) \[ [\text{DP} \ [\text{D} \ D° \ [\text{AP} \ [\text{Num} \ [\text{AP A} \ [\text{NP N PP/CP}]]]]]] \]

This new syntactic perspective provides a much better explanation of agreement phenomena between the elements of the DP, especially patterns of adjectival inflection. If the head of the nominal expression is the determiner D, the features of all other elements of the nominal expression contained in it agree with D. However, to date it is not clear how many functional projections are contained in the internal structure of the DP and how they are layered.

The DP hypothesis capitalizes on the fact that the determiner is (generally) unique in a DP (a big green car, *a the big car), whereas true modifiers like adjectives, PPs and relative clauses can be recursively organized/heaped up (the happy little girl who climbed the apple tree which stood in my aunt’s garden). Furthermore, it also fits the standard semantic analysis of (generalized) nominal quantification (Barwise & Cooper 1981). There remain a large number of open issues surrounding the best account of the nominal phrase, involving the processing (Bad- der), the semantics (Meier, Zimmermann), the way to account for variation (Poletto, Rinke) and the prosodic structure of the DP (Féry, Ishihara). Some of them cannot be addressed in a purely theoretical way, and need support from other linguistic empirical field of inquiries like, for instance, diachrony and typology (Weiß, Gippert). If layers in the structure of the DP differ across languages, a series of questions related to the acquisition of these structures arise. For example, across languages children’s early NPs are lacking nominal modifiers. However, it is still a matter of debate whether the overt manifestation of the category N reflects a richer underlying structure (Schulz, Müller).

In particular, it is an open question which functional categories are available at all within the DP and what kind of independent evidence can be provided in order to prove their existence and to show their feature composition (cross-linguistically and with respect to one language). Particular empirical domains of investigation consist in the Old Romance V2 languages, in particular Old Italian and Old Portuguese, as well as modern Romance languages like Rhaeto-Romance varieties, and German standard and non-standard varieties, with a special attention to Germanic linguistic islands that have been in contact with Romance for centuries (i.e. Cimbrian, Plodarisch, Mocheno).

As a case in point, the following phenomena of nominal modification and syntactic variation are of immediate interest, in particular with respect to the Romance languages: a) the variability of adjective placement within the noun expression in Spanish, Portuguese, French and Italian, b) the position and categorial properties of pre- and postnominal possessives in Portuguese and Italian, c) gender (esp. gender agreement) patterns, d) adjective and PP word order variation, i.e. scrambling phenomena inside the DP in Old Romance. All these phenomena show that there are indeed additional functional categories between DP and NP that provide the respective syntactic positions and determine the observed syntactic variation. This is controversial and has even led to the assumption of a parallelism of CP- and DP-structure. It is, however, controversial, which syntactic functional categories have to be assumed and how their featural composition can be captured (NumP, GenP, PossP, AgrP, nP, KP etc.). The general question concerning the layering of the internal syntax of the DP will be explored starting from
the highest portion of its internal structure, i.e. its left periphery. We intend to compare it to the left periphery of the CP in order to establish whether there are parallel phenomena between the two areas, and in case there are, how far the parallel can be stretched.

More specifically, one may wonder whether the CP layering first proposed by Rizzi (1997) with ForceP, TopicP, FocusP and FinP and modified by subsequent studies (see Poletto 2006), is also found inside the DP, as the hypothesis that all phrases are built in a parallel way leads us to think. Is it possible to distinguish two layers in the DP corresponding to ForceP and FinP, each of which can be occupied by different types of determiners, which could be the nominal counterpart of complementizers? Are there interpretive distinctions when one or the other position is occupied? Is it possible to move DP-internal PPs or AdjP to a Topic-like or Focus-like position? (see section 3.3 for discontinuities in the nominal phrases). Is there any alternation between noun movement and the realization of definite and indefinite determiners as originally proposed by Longobardi (1991) for some classes of nouns in Italian and Hebrew? Alternatively, one could also ask whether there are different types of projections that are unique to DPs, in contrast to the projections in the CP domain. The assumption of functional projections based on agreement and case features is especially problematic against the backdrop of minimalist theory and the presumed parallelism of CP and DP. The problem of determining the exact internal syntactic structure of the DP will be approached from the perspectives of diachronic and synchronic variation in Romance (Poletto and Rinke) and Germanic (Weiß).

A further question concerns adjective ordering restrictions. It has been repeatedly shown in the literature that certain adjectives occur in an unmarked order relative to each other in the absence of any special intonation, see for instance Bolinger (1967), Valois (1991), and Cinque (1994). As an example, only the first combination in (3) is perceived to be acceptable (Morzycki 2005).

(3) the awful big red ball; #the awful red big ball, #the big red awful ball, #the awful red big ball, #the red ugly awful ball

Focused adjectives can be freely ordered, especially if they are produced in individual prosodic phrases. Dixon (1982) and Hetzron (1978) have investigated the canonical ordering from a typological point of view. A variety of potentially universal hierarchies have been proposed. Sproat & Shih (1991) proposed (4a), Dixon (1982) (4b) and Cinque (1994) (4c), which use different categories.

(4) a. Quality > Size > Shape > Color > Provenance.
   b. Value > Dimension > Physical property > Speed > Human Propensity > Age > Color
   c. Possessive > Speaker-oriented > Subject-oriented > Manner

In Cinque’s approach, adjectives occupy unique specifier positions of functional heads, whose order is universal. The origin of these universal hierarchies is either semantic (ontological distinction: different kinds of modifiers occur in different positions because they modify different semantic objects), or pragmatic. Apparent violations of the above mentioned universal hierarchies do not give raise to ungrammaticality, but are interpreted as instances of pragmatically unmotivated scrambling.

Cross-linguistic comparisons of the phenomena listed above as well as investigations into their diachrony and acquisition should be of special relevance to the issues outlined above. Such studies can shed light on the universality and the possible space of variation in the functional makeup of the DP by focusing on questions like the following: How should we syntactically model adjective placement between German and Romance? How do monolingual children master adjective placement in their first language, compared across different language types? How do native speakers of German acquire the variable placement of Romance languages in child and adult L2 acquisition? How can we account for the diachronic variability of possessive constructions and adjective placement? On these issues, see Cardinaletti & Giusti, (2010) and S. Rizzi et al. (2013).

Another approach to the CP-DP-analogy is to scrutinize the pertinent interfaces. The higher CP-layers are known to be immediately relevant to pragmatic and phonological process-
es and such relevance would also have to show up in the DP. Furthermore, a stricter analogy between CP and DP should be observable concerning the positioning of the single pragmatic-related components. These analogies would have to be brought out by close inspection of the relevant interfacing (interpretive) mechanisms, seeking and exploring connections between content-related (CP) categories and sentence type (Force) on the one hand and reference-related (DP) categories on the other hand, including information structure, illocution, etc. on the one hand, and specificity, definiteness, etc. on the other. In intonation languages, the stressability of some constituents as opposed to others, related to the order of the categories, supports the processing of the DP as a whole, but only up to a certain point: not all parts of the DP can be stressed and moved. To carry out this programme, combined expertise between syntax, pragmatics, and phonology is mandatory. It is thus an excellent field for close collaboration and truly inter-modular dissertation projects.

3.2.2 Diachrony of nominal modification
A general research question concerns the diachronic development and synchronic micro-variation of the internal functional DP-architecture. Diachronically, nominal expressions in German developed from NPs to DPs. This development presumably involved the evolution of various DP-internal functional layers responsible for different kinds of modification and modification-like functions (like DP-internal predication, possession, degree adverbs, and others).

Corver (1990) and Bošković (2005b) raised the question of the universality of DP, proposing that languages without determiners but with different kinds of discontinuities such as, e.g., Left Branch Extraction, like most Slavic ones, lack a DP layer. The Germanic languages developed from languages without determiners to languages with articles, demonstratives and possessive pronouns. For German, the development happened mainly during the Old High German (OHG) period with some later developments in Middle High German. While research on the development of the nominal phrase in German focused on the grammaticalisation of articles (e.g., Oubouzar 1992), the pre- or postnominal position of attributes, or aspects like definiteness governing the inflection of adjectives (Demske 2001), the functional architecture of the DP still needs to be investigated more thoroughly to achieve a better understanding of how a language can develop determiners. It remains to be shown how strong the relationship is between lack of determiners and other properties of nominal phrases in a microvariation and typological comparison (Weiß). This aspect can also be related to acquisition: Children initially do not produce determiners; what properties do their nominal phrases exhibit? Which role does the L1 play for L2 learners in the acquisition of the syntax and semantics of the German DP system, e.g., regarding the distribution of the determiner? (Schulz).

According to Bošković (2005b), however, DP- and NP-languages differ not only with respect to the presence of articles. NP languages also allow for ‘stacking’ of determiner-like items, and do not always require a rigid word order, in contrast to DP languages. OHG exhibited some revealing similarities with some Slavic languages as typical NP languages: determiner-like items and adjectives could appear pre- or post-nominally (e.g., *ther ira sun guater ‘this her sun good’ (Otfrid von Weißenburg, Evangelienbuch I: ch. 6, verse 4), *gidriwen sinen allen ‘loyal subjects his all’ (Evangelienbuch I: ch. 3, verse 45), *sin drut thehein ‘his friend one’ (Evangelienbuch IV, ch. 5, verse 63)). It is to be investigated whether the change from OHG to the modern state of the language can be explained by assuming additional functional layers within the DP (e.g., QP, NumP, or PossP), an issue that should also be tackled from a broader typological perspective, to which we turn now.

In the history of several language families of Indo-European stock, adjectives have developed two declension types, one of them often being referred to as ‘definite’. In both Baltic and Slavic languages, this type is characterized by suffixal elements that have convincingly been traced back to former relative pronouns (Hajnal 1997, Stolz 2010, Zinkevičius 1957), the definite declension thus reflecting the residue of nominal relative clauses with an implicit copula ([the] car that [is] red > the red car). A similar but not identical grammaticalisation path can be seen in many Iranian languages where the former relative pronoun has developed into a mere attribute marker, the so-called ezāfe; here, too, the starting point must have been nominal relative clauses with an implicit copula (Haider & Zwanziger 1984), but there seems to be no definiteness opposition involved ([the / a] car that [is] red > [the / a] red car). Nominal relative claus-
es have also been assumed to be the source for definite forms of nouns in some languages of the Indo-Aryan family. On the other hand, the ancient Germanic languages showed a definite declension type of adjectives with a different structure, based on stem variation (Ringe 2006: 169–170, 281–286). This opposition has been assumed to have cognates in Greek, Latin, and Tocharian. All of these issues need further investigation in a broader typological framework that comprises non-Indo-European languages such as the Kartvelian language Syan which has possibly developed a ‘pronominal’ inflection type of adjectives independently from similar developments in Germanic, Slavic etc., or Georgian which possesses comparative formations of adjectives that may be built upon embedded copula clauses (Gippert 1999–2000). The diachronic and typological issues will be investigated by Gippert and associated researchers (Gelumbeckaitė, Tandaschwili), with the text corpora compiled in TITUS (Thesaurus Indogermanischer Text- und Sprachmaterialien) and other projects serving as the empirical basis.

Variation in typological choices is also important from the perspective of phonology. DPs and NPs in Romance languages, as compared to Germanic languages, have a tendency to form prosodic phrases which are less prone to be deaccented. Is this difference between the prosodic properties of the two language types related to their syntactic properties, as has been proposed by Vallduvi (1992), Zubizarreta (1998) and Samek-Lodovici (2006), among others? Here a connection is established with the syntax-prosody interface part of the RTG, especially in the phonological analysis of Romance languages in comparison to Germanic and other languages (Feldhausen, Féry).

3.2.3 Acquisition and processing

In some cases, nominal constructions seem to be extremely complex even though they are easy to process, as witnessed by some of the examples in the following paragraph. The psycholinguistic literature has investigated the factors facilitating parsing of complex structures. The following question will be looked at from a cross-linguistic perspective: is a nominal phrase presenting agreement between its projections easier to process than one in which the elements do not agree? The role of information structure also needs to be investigated: does an accent triggered by a focus facilitate processing of complex nominal phrases? This aspect can be studied in cooperation between processing (Bader), acquisition (Müller, Schulz) and prosody (Ishihara, Kentner, Féry).

As alluded to above, modification within the DP concerns different categories, including possessives, PPs, and adjectives. Given this basic variation in configuration together with the cross-linguistic variation, the question arises how these factors influence complexity, expressed via recursion. Several forms of DP recursion can be distinguished, using so-called second order recursion structures (see Pérez-Leroux et al. 2012 for this terminology): possessives (Mary’s sister’s ball), comitative prepositional modifiers (the baby with the doll with blond hair), locative PPs (the book on the table on the terrace), noun complements (the drawing of the student of math), recursive noun compounds (Christmas tree cookie), recursive adjectivals (the second green big ball). Finding out which of these are easier to acquire, and/or exist across languages, will help gaining insights into differences between coordination and recursion in general, and recursion on nominal phrases in particular. Pérez-Leroux et al. (2012) elicited recursive possessives and comitative prepositional modifiers by means of a referential task that made recursive structures the optimal description for a target referent. English-speaking preschoolers understood the semantic demands of the task, but avoided recursive NPs.

Recursion at the level of nominal expression also has a prosodic component (see Kentner & Féry 2013 for instance). Prosodic structure has long been assumed to be non-recursive (Nespor & Vogel 1986, Selkirk 1995, Truckenbrodt 2006). Recently, prosodic recursion has as a general theoretical feature attracted greater attention. New approaches to prosody (Ito & Mester 2012, Selkirk 2011) assume a strict one-to-one mapping between morpho-syntactic categories and prosodic categories. An evident problem with this mapping is related to the prosodic analysis of a DP modified by a PP or a relative clause. Such a DP is a Prosodic Word containing a Prosodic Phrase or an Intonation Phrase, a configuration forbidden by nearly all prosodic models, also called ‘prosodic monster,’ e.g., a category n dominating a category of the same category n plus a higher category n+1 or n+2. This configuration violates the principle of Layeredness which forbids such a domination relation. The solution taken by individual languages to circum-
vent this allegedly impossible structure (one of them being extraposition) will be investigated in the RTG. It might even be that the different forms of recursion listed above find different prosodic solutions. Language acquisition, psycholinguistics and prosody will cooperate to investigate this aspect of nominal modification (Bader, Féry, Ishihara, Kentner, Reetz, Schulz).

In summary, a number of salient topics concerning the internal structure of nominal phrases have been addressed. A wealth of further themes offer themselves, especially at the interface between the relevant submodules of grammar and in a typological perspective. In the next section, the external structure of the nominal phrases is shown to provide a rich field for investigation, too.

3.3 External structure, word order and discontinuity

Closely related to the inner architecture of nominal phrases are issues of word order and discontinuity. Projections of nominal heads that relate to the same argument or adjunct of a predicate without dominating each other form a discontinuous noun phrase. From this perspective, extraction of a PP, a comparative or result expression, a relative clause, and the like can be considered to form a discontinuous nominal expression together with the nominal head, because the extraposed or dislocated elements are part of the extended projection of the noun. Other cases of discontinuity of a DP include doubling of constituents (as exemplified in resumptive pronouns), floating quantifiers, heavy NP shift, incorporation and secondary predicates.

Following standard assumptions, nominal phrases are preferably continuous, and discontinuity needs to be motivated by independent and notoriously elusive factors. Starting with Perlmutter and Ross (1970), Guéron (1980), and Culicover and Rochemont (1990) for extraposition, and van Riemsdijk (1989) for discontinuous noun phrases, it has been repeatedly shown in the literature that trying to elucidate extraposition, split-topics or other displacements of parts of a nominal construction from a standard movement perspective leads to unsatisfactory and incomplete accounts. It seems that syntactic explanations cover only part of the constraints underlying discontinuity, as do purely information-structural ones, or purely phonological ones, sometimes falling under the terminology of ‘stylistic rules’ (Ross 1967). A more promising approach to extraposition is to address and compare different possible factors eliciting extraposition, syntactic constraints being only one of them. Extraposition, discontinuous nominal phrases, discontinuity vs. locality and the factors influencing the choice of constructions are addressed in turn in the following subsections.

3.3.1 Extraposition

Nominal phrases can appear with extraposed PPs like (5a) from Guéron (1980), with extraposed relative clauses like (5b) from Culicover & Rochemont (1990), or with extraposed comparatives like (5c) and a result clause like (5d). All examples in (5) illustrate extraposition from a subject, which is assumed to be less common than extraposition from an object. Furthermore, extraposed constituents can be argumental, attributive, or adverbial.

(5) a. A woman entered the room with blond hair.
   b. A man came into the room that no one knew.
   c. A better teacher was hired than I had expected.
   d. So many people wanted to attend the lecture that we had to get a bigger room.

Syntactic approaches to extraposition all have their limits since extraposition is a typical case of a construction which has failed to be accounted for in a classical generative model. It underlies constraints which cannot be subsumed under A- or Ā-movement (as for instance lack of unambiguous island effects, lack of freezing effects, or lack of triggering features in the minimalist approach). Furthermore, it is not always clear where in the syntactic structure an extraposed constituent is attached. Semantic facts are not very conclusive and have been shown to speak for a syntactic movement in English, and for PF movement in German (Inaba 2007). A further problem is that, in some generative models, if the explanation for the extraposition itself is semantic, phonological or coming from information structure, it happens too late for narrow syntax to be able to derive it.
Various members from English Linguistics (including Sailer, Walker, and Webelhuth) have been working on the syntax-semantics interface of extraposed arguments and relative clauses in English and German. A surface-oriented syntax in combination with an underspecified approach to the syntax-semantics interface has proven very successful in capturing scopal and locality generalizations of these phenomena. The next logical step to take consists of extending the analytical coverage of the tools and methods that have already been developed to the extraposition from prenominal modifiers, in particular result clauses and comparative clauses:

(6) So many people sent so many gifts to us that it will take us some time to sort them all.

Additional questions that need to be addressed include, among others, (i) to what extent these extraposition phenomena can be treated as purely semantic (cf. Meier 2001) and (ii) how linear ordering restrictions are to be captured when more than one expression is extraposed within one and the same sentence.

A purely phonological approach to extraposition can be undertaken from two perspectives. The first one addresses the factors that render an extraposed PP or clause better than a non-extraposed one. In the case of a clause, if the head noun and a modifying PP or relative clause have to form a single prosodic constituent, as required by the so-called containment prosodic theories requiring one-to-one mapping between syntactic and prosodic constituents (see section 3.2.3), extraposing the PP or the clause improves the prosodic structure: a heavy constituent (N+PP) becomes lighter. The second perspective is the metrical one. An extraposed constituent should not be too far away from its head. An intervening stressed potential antecedent for a relative clause or a PP is not well-formed: compare the German example (7) from Altmann (1981: 176) which illustrates the ill-formedness of such structures, even though the term schwanger unambiguously characterizes Frau rather than Rose.

(7) *Peter hat der Frau eine Rose geschenkt, die schwanger war.  
Peter had the woman a rose given who pregnant was  
‘Peter gave a rose to the woman who was pregnant.’

From a psycholinguistic perspective, relative clause extraposition has been investigated mostly with respect to constituent weight (see Wasow 2002 for a critical discussion of accounts attributing extraposition to a ‘Principle of End Weight’ requiring phrases to appear in order of increasing weight). Further grammatical factors (e.g., information structure) have been neglected, although there are a number of studies on the difference between extraposed and center-embedded relative clauses in adults’ and children’s comprehension and processing. It has been shown in those studies that the acceptability of the construction decreases when the distance between the antecedent and the extraposed relative clause increases (see Uszkoreit et al. 1998 for corpus evidence), and also when potential nominal antecedents intervene, especially accented ones. And it has also been shown that unaccented material separating the two parts of a noun phrase renders the distance more tolerable. Acquisition studies showed that English-speaking preschool children are able to interpret extraposed relative causes like There’s a duck near a horse that’s fallen over correctly as modifying the nonadjacent NP, if this is the only reading available (Fragman et al. 2007).

Extraposition of relative clauses and of prepositional phrases will be studied by both corpus analyses and experimental methods and by taking the interaction of different modules of grammar into account. This will involve Webelhuth, Walker, Sailer (syntax and syntax-semantics interface), Féry, Ishihara, Kentner (prosody and prosody-syntax interface), Reetz (acoustic realisation), Bader, Schulz, Müller (psycholinguistics, grammar-processing relationship).

3.3.2 Discontinuous nominal expressions

A more restricted case of discontinuity is exemplified by discontinuous nominal expressions proper to which we now turn. In extraposition, maximal projections like PPs or relative clauses are moved away from their head. In discontinuous nominal expressions, the two parts of the
discontinuous constituents share a single thematic role. In this latter case, neither of them forms a maximal projection.

Languages differ as to which kind of nominal expression discontinuity they allow. Syntactic restrictions, information structural factors and prosodic properties seem to conspire to allow or forbid such constructions. German and Slavic languages allow discontinuity of nominal phrases as in (8), but English and Romance languages do not.

(8) Romane hat Bernadette nur wenige australische gelesen.
   Novels has Bernadette only few Australian read
   ‘Bernadette has read only few Australian novels.’

In such discontinuous DPs, the two parts of a nominal construction appear at different positions in the sentence viz. only at SpecIP and SpecVP, according to Frey (2004). Slavic languages are even more permissive in allowing fronting of a wh-element (Left Branch Extraction) or of an adjective, which is not possible in German or English. While German is reasonably well understood (see for instance Fanselow & Čavarić 2002, Ott 2012), other languages are not. Since the discontinuous parts can be associated with a variety of information structural roles (see for instance Ott 2012 for telling examples), there cannot be a direct relationship between discourse roles and discontinuity, at least in those languages where discontinuity is productive. It has been shown that discontinuous nominal phrases can even marginally occur when all parts are part of the same broad focus.

In Classical Greek and Latin, as well as in Serbo-Croatian, clitic placement may favour the formation of such nominal splits (Agbayani & Golston 2010, Zec & Inkelaar 1990). In Algolian languages, some of them may even be obligatory (LeSourd 2006). An overview of the typological properties of such constructions is still lacking, even more so a description of their syntactic, prosodic and semantic properties.

In some languages, even modifiers of a noun incorporated into the verb can appear outside of the complex verb + noun. Baker (1988: 145) proposes that in an example like (9), the non-incorporated part o-v:ta:k-lʔ ‘syrup’ is an adjunct to the verb.

(9) hati-hnek-aets o-v:ta:k-lʔ
    3M.PL-liquid-gather PRE-syrup-SUF
    ‘They gather maple syrup.’

The question of the best analysis of noun incorporation, particularly when it involves discontinuous DPs, is related to the best analysis of non-configurationality and is far from being settled.

Regarding acquisition, it is unclear how children with L1 English or Romance and L2 German or Slavic master discontinuous NPs like (8) and vice versa, and how structures like (8) are interpreted by children with L1 English or Romance.

DP-doubling, like for instance clitic doubling in dislocated constructions, has also been analysed as involving discontinuous constituents, albeit of a different kind. In some approaches, the DP is contained in a big DP structure including the secondary or resumptive element (clitic or tonic pronoun and quantifier, see Kayne 1975, Uriagereka 1995, Belletti 2004 among others). Furthermore, the phenomenon of dislocation has found a revival of interest, as tested in the work of Ott and de Vries (2012), who propose that Germanic right-dislocation constructions are to be analysed as biclausal structures, the dislocated peripheral XP being a remnant of ellipsis in the second clause. In this case, too, research involving different linguistic modules is necessary.

This part of the RTG regroups the syntactic researchers (Webelhuth, Poletto), the prosody (Féry) and the psycholinguistic module (Bader, Schulz).

3.3.3 Factors influencing the choice of constructions and their processing
Under which circumstances are (parts of) nominal phrases dislocated, topicalized, extraposed or in situ? Under which circumstances is a dislocated constituent doubled by a clitic, or accented? Facts bearing on information structure seem to influence the one or the other realization, but how exactly and which other factors are at play is not at all well studied. For instance,
has often been claimed that discontinuous DPs arise when the two parts of the DP do not bear the same information-structural role; or that a right-dislocated constituent is unaccented when given, but accented as an ‘afterthought’. However, positions of the parts of a complex nominal phrase are not obligatorily related to information structural roles. In fact, it can be shown that all positions may carry all roles, even if preferences can be pinned down (see Ott 2012 for German).

English has a syntactic or prosodic ban on complex pre-modifiers, which accounts for the pattern in (10a). While there is optionality with respect to the extraposition site in (10a), extraposition to the end of the clause is required in (10b) to allow for the combination of two antecedents with distinct grammatical functions. This suggests that constraints on the connectivity between head and modifier, i.e. constraints at the syntax-semantics interface, play a role in the choice of the construction in addition to syntactic and prosodic factors.

(10)  
\begin{itemize}
  \item a. More *[than last year] students [than last year] failed classes [than last year].
  \item b. More students *[than we had expected] failed more classes *[than we had expected] this term [than we had expected]
\end{itemize}

Questions of the internal order of the DP as well as of the semantic issues not only relate to information structure, but also to accent placement. The proliferation of maximal projections poses the question of accentuation inside the nominal expression. Since accent assignment at the level of the sentence is largely syntax-driven, it is crucial to understand whether such a view of the accent assignment at the level of the DP is also morpho-syntactically motivated. Adjectives are cases in point. If, following most theories on default accent placement, it is assumed that a maximal projection obligatorily carries a main or nuclear accent in its domain, every adjectival phrase should carry a nuclear accent, and not only the noun (see for instance Dehé & Samek-Lodovici 2009 for a presentation of the problem). However, in a simple DP like the little girl, the adjective is usually not much accented, especially when used non-restrictively. This fact is difficult to reconcile with standard assumptions about neutral accent placement. In the absence of a narrow focus, the sentence nuclear accent is located on the preverbal or final argument of the verb, or on the final constituent if the final non-verbal constituent is an adjunct. In a DP, it is generally the last constituent, disregarding the internal constituency of the DP. A pre-nominal adjective or quantifier does not carry the nuclear stress, and the determiner even less so.

Focus-background structure inside an NP can also shed light on various empirical questions about the interaction of syntax (word order) and prosodic prominence (required by focus). While some languages realize focal prominence in a specific place within a sentence (e.g., Romance languages tend to have a focused element at the end of the clause), such a strategy is sometimes unavailable within a DP, since word order within a DP tends to be more rigidly fixed than within a clause. By investigating this restricted domain, the nature of the interaction between prosodic prominence and semantic focus, as well as its typological variation, may become clearer. This issue is also closely related to the question of why non-continuous DPs are allowed in certain languages. Such questions involving information structure aspects are present in nearly all modules of linguistics: semantics (Zimmermann, Meier), processing (Bader), language acquisition (Schulz, Müller), prosody (Féry, Ishihara, Reetz).

It has been shown that prosody also plays an important role in disambiguating syntactic structures. Attachment ambiguities of nominal modifiers (such as adjectives, PPs and relative clauses) can often be disambiguated by prosody. For example, the relative clause in (11) can be associated either with the actress or the servant. The sentence can be disambiguated by the presence or the absence of a prosodic boundary between actress and the relative clause.

(11)  
The servant of the actress who is on the balcony.

It has been claimed (Fodor 1998, 2002) that there are language dependent parametric variations as to which of the two readings in structures like (11) is preferred in a given language, and that such preferences can be explained in terms of the prosodic properties of that language. Fodor proposes the Implicit Prosody Hypothesis, according to which a silent reader projects an
abstract prosodic representation of the sentence, and this implicit prosody influences the parsing of structural disambiguation.

Attachment ambiguities involving post-nominal genitive DPs and PPs in German, as in (12), have been a prominent topic of research before 2000 (cf. Konieczny et al. 1997), but since then not much further work has been done. As in many authentic examples, the possibility of recursive modification increases the degree of ambiguity. First, der Lehrerin can be dative or genitive, according to its attachment to the DP or to the VP. Moreover, an den Chef is also ambiguous: this PP can be an NP modifier (the letter to the boss - der Brief an den Boss) or it can modify the VP (addressed to the boss - an den Boss gerichtet). Since both readings presuppose that der Lehrerin is attached to the DP der Brief 'the letter', only the genitive analysis of der Lehrerin is possible in the final analysis.

(12) Anscheinend war der Brief der Lehrerin an den Chef gefälscht/gerichtet.
   presumably was the letter the teacher to the boss faked/addressed
   a. 'Presumably, the letter of the teacher was addressed to the boss.'
   b. 'Presumably, the letter of the teacher to the boss was falsified.'

Recent developments in parsing theory, in particular with regard to the role of expectation-based processing, have not yet informed research on the question of how such modifiers are identified and attached, and the existing evidence is quite limited. There are several gaps regarding the empirical evidence. First, prior experimental investigations have concentrated on sentences with a single modifier. However, several modifiers in a row are not uncommon, as in (12), which increases the degree of ambiguity considerably. Second, the role of potentially disambiguating prosodic phrasing has not yet been given much attention. Third, relevant corpus evidence concerning this construction is missing. It is therefore unknown whether attachment preferences for post-nominal modifiers are governed by frequency information, as claimed by many current theories, or by other grammatical factors. Furthermore, examples as in (12) can be followed by a relative clause in the same way as in example (11), which raises interesting questions concerning the availability of the different nouns for further modification.

In contrast to post-nominal modifiers, almost no research concerning phrasal pre-nominal modifiers exists. When a DP starts with an overt determiner, there is normally no ambiguity involved, but issues of parsing complexity arise. In a DP like der [am Sonntag aus der Wüste zurückgekehrte] Reisende 'the traveller coming back from the desert on Sunday', determiner and head noun are separated by a fair amount of modifying material. How this affects the parsing complexity of such phrases is an open issue. When a DP is not introduced by an overt determiner, local and global ambiguities may arise, as in (13), where the temporal phrase letzte Woche can either be attached to VP or to DP.

(13) Peter hat letzte Woche verloren gegangene Bücher wiedergefunden.
    'Peter found books that had gone lost last week.'

Within the RTG the questions of attachment ambiguities and preferences can be addressed from prosodic (Féry, Ishihara), processing (Bader), acquisition (Schulz), typological (Gippert) and corpus-linguistic (Sailer, Webelhuth) perspectives.

3.3.4 Non-optional modification

Although optionality generally counts as a defining criterion of any kind of modification, it appears that some modifiers cannot be omitted without concomitant effects on the rest of the sentence. The so-called subtrigging phenomenon in English (LeGrand 1975) is a case in point:

(14) John talked to any woman *(he saw).

Related effects outside the nominal domain may give a clue as to what is going on here: the unavailability of a generic reading of (15a) has been attributed to the absence of a sufficient basis for ellipsis resolution.
Following Partee (1995), Rimell (2004) argues that tripartite structuring necessitates the overt presence of either a suitable quantifier or a restrictor; it is not possible to reconstruct both. This-reconstructability principle accounts for the oddness of (15a), where a default genericity operator cannot be filled in because it would lack a restrictor. On the other hand, if there is a quantificational element (like every evening in (15b)), a restriction of the tripartite structure of the sentence can be reconstructed. In a similar vein, a relative clause may be interpreted as introducing a restrictor for a covert genericity operator. Thus the modification in (16b) licenses the generic reading of the modified sentence (Dayal 2004, Zaroukian & Beller 2012).

Hence the above cases of subtrigging may also be seen as introducing a restriction for a covert genericity operator: in (14) the relative clause can serve as a restrictor in order to reconstruct the modal context for the licensing of free choice any (Dayal 2004, Aloni 2007). The explanation may also extend to cases like (17) if they are treated as expressing a dispositional modality (Menéndez-Benito 2005).

Other cases of obligatory modification have been discussed, for example in Goldberg and Ackermann (2001). They argue for a general pragmatic principle that enforces modification if the utterance would not be informative otherwise. They discuss cognate objects in the domain of nominal modification (Pat laughed a #(hearty/quiet) laugh.). Obligatory modification of head nouns with relatively weak or redundant semantic contribution could be added to their list of phenomena:

In addition to cases of structurally or contextually required modification, there are examples of lexically enforced modification: Some determiners require the presence of a nominal modifier (19a). A number of nouns require a modifier (19b). Similarly, some idiomatic expressions require a particular nominal modifier, see (20).

There are also various factors that lead to the impossibility of nominal modification. Atomic forms of pronouns do not allow for modification in French (van Eynde 1999), see some examples in (21).

(15) a. *Mary drinks a beer. (no generic reading)
   b. Mary drinks a beer every evening. (generic reading)

(16) a. The students are successful. (no generic reading)
   b. The students who work hard are successful. (generic reading)

(17) The printer prints any document.

(18) a. Alex wohnt an einem #(ruhigen/schönen) Ort.
    Alex lives at a (quiet/beautiful) place.
   b. Wir zählten bis zu einer #(großen/hohen/niedrigen) Zahl.
    We counted up to a (big/high/low) number.

(19) a. diejenigen (Studierenden), [die in Frankfurt wohnen]/[mit Wohnsitz in Frankfurt]
    b. in der *Ø/freien/offenen Wildbahn; die */ewigen/*weiten Jagdgründe

(20) a. mit jemandem ein *(ernstes) Wort reden
    b. *(fröhliche) Urstände feiern
    c. die Bretter, die die Welt bedeuten

(21) a. Moi/*je seule connais mon appétit.
    *Only me know my appetite.*
   b. Lui/*il qui était perdu est retrouvé.
    *He who was lost has been found again.*

(20)
Modification is extremely restricted in cases of weak referentiality.

(22)  
  a. Alex is in (*new) hospital. vs. Alex is in the new hospital.
  b. Pat is theoretical/*talented physicist.

It should be noted that even under a weak referential reading, not all contexts behave the same with respect to modification. As shown in (23), the determinerless predicative construction is excluded for expressive modifiers (23a), even though such modifiers are compatible with non-decomposable idioms (23b) and in determinerless weakly referential PPs (23c).

(23)  
  a. Pat is *(a) damn/fucking teacher.
  b. Pat kicked the damn/literal/figurative bucket.
  c. Pat has to go to damn/fucking hospital.

Cases of non-optional modification challenge one of the core defining properties of modification. They can only be understood in the light of the interaction of syntactic, semantic, pragmatic, and prosodic factors (Meier, Zimmermann, Sailer, Féry).

3.4 Modification and Interpretation

We discussed the canonical syntactic form of modification in 3.2 and deviations from it in 3.3. In 3.4 we will look at the interpretive aspects of modification, primarily in their syntactically canonical form. Among the possible topics, we will consider cases in which a DP-internal modifier is interpreted outside the DP (3.4.1), tendencies and exceptions in the semantic relation between a modifier and a modified head (3.4.2), and scope interactions between a head and its modifier (3.4.3).

3.4.1 Discontinuity vs. Non-Locality

Loosely speaking, while discontinuous modifiers do not surface within the nominal constituent they (syntactically) modify, non-local ones surface within a constituent they do not (semantically) modify. Two infamous cases are illustrated below:

(24)  
  a. We saw an occasional raccoon.
  b. Dorit was staying in an unknown hotel.

(24a) does not mean that the raccoon we saw was occasional; rather it says that occasionally we saw a raccoon (Bolinger 1967). Similarly, (24b) does not necessarily mean that Dorit was staying in some hotel that happens or happened to be unknown – it may have been very popular; rather the sentence may express that it is unknown in which hotel Dorit was staying (Abusch & Rooth 1997). In these examples, a syntactically DP-internal modifier has scope over more material than contributed by the DP; this includes extreme cases in which the DP has no meaning of its own - as found with modifiers inside non-decomposable idioms (She kicked the social bucket). Though the exact nature of these non-local modifications is still not fully understood, it is clear that the choice of the determiner seems to be relevant for the availability of non-local readings. While the examples in (24) involve indefinite articles, there are similar interpretational effects with definite articles as well: Bernard opened the wrong bottle may mean It was wrong for Bernard to open a particular bottle (if Anna had opened it, it would not be wrong). However, while the surface form of the article is definite, its interpretation appears to be close to an indefinite (Schwarz 2009). On the other hand, semantically more contentful determiners like numerals, quantifiers, or possessives block a non-local interpretation: #We saw three/all/Rocky's occasional raccoon(s) does not have the external interpretation (M. Zimmermann 2003). Further cases of non-local interpretation can be observed with expressive modification. The expressive adjective in I broke the damn bottle can either modify the entire proposition or the entire DP (Potts 2007); a reading in which it just modifies the noun is highly unlikely.

Some of these mismatches may be related to classical morphological bracketing paradoxes like the ambiguity of beautiful dancer, where the adjective has been argued to (subsec-
tively) apply to the verb *dance* before the nominalization is formed (Vendler 1963): as in the case of *occasional*, a sortal mismatch between individual vs. event predication appears to be involved. Similar cases are known in the interaction between nominal modification and composition; cf. the ambiguity of *deutsche Sprachwissenschaft* ‘German language studies’ (Bergmann 1980). However, it is currently unknown whether there is anything systematic to the connection between non-local modification and re-bracketing such that they may be subsumed under the same kind of coercion mechanism. It would seem that, from a parsing perspective, the challenge presented by either phenomenon compares to that of discontinuous elements; whether the strategies to resolve them are related, remains to be explored in a cross-disciplinary effort. Within the RTG this question will be addressed in cooperation between the research groups in semantics (Zimmermann, Meier) and English linguistics (Sailer, Webelhuth). From the perspective of acquisition, a number of puzzles exist: it is unclear how language learners interpret structures like *beautiful dancer*. It could be assumed that once children have mastered nominalization, they treat the adjective subsectively (see next section) before forming the nominalization (Schulz).

3.4.2 Subsectivity

The semantic effects of nominal modifiers may be classified according to different criteria. The traditional distinction according to their function as restricting the domain of a quantifier vs. functioning as an appositive, has been used to describe ambiguities in relative clauses, where semanticists traditionally make a connection with (surface) constituent structure (cf. Lehmann 1984: 261ff.):

(25) The students who did well on the logic exam failed the statistics test.
    [The [students who did well on the logic exam]] failed the statistics test. restrictive
    [[The students] who did well on the logic exam] failed the statistics test. appositive

The two bracketings not only go hand in hand with straightforward interpretive effects (intersection of extensions vs. attribution of a property), they also go some way towards explaining the distribution of the two readings. However, the same kind of ambiguity may be observed in adjectival modification (*pink* in (26)), where no surface bracketing like in (25) can dissolve it (cf. Fabricius-Hansen 2009):

(26) Mats proudly presented his (naturally) pink convertible.

Instead it would seem to call for more powerful devices at the syntax-semantics interface, like discontinuous structures or two-dimensional interpretation (Barker & Shan 2008, Giorgolo & Asudeh 2011, Gutzmann 2012). Furthermore, the distinction between restrictive and appositive seems to relate to problems at the heart of the semantics/pragmatics interface, like truth-conditional vs. expressive/use-conditional meaning (Potts 2005), or the question under discussion (Simons et al. 2011).

More recent classifications primarily aim at a more fine-grained picture of the varieties of NP-internal (mostly restrictive) modification. It is generally agreed that the prototypical cases are analysable as first-order predicates (type <e,t>) interacting with their arguments by intersecting extensions (Heim & Kratzer 1998: ch. 4). Among these are restrictive relative clauses, post-nominal PPs, and (certain) adjectives: *every girl that came from England* / *no girl from England* / *most English girls like French boys* conform to the descriptive pattern:

(27) Det Mod N VP ≡ Det N Mod VP ≈ Det(‘(N’ ∩ Mod’,VP’)

This pattern (confusingly referred to as Modification in current semantic literature, starting with Heim & Kratzer 1998) vindicates the inference from *Ralph is a spy who drinks his martinis shaken* to *Ralph is a Russian spy*, if the Russians happen to be those who drink their Martinis shaken. Moreover, intersective modification yields the inference from *Ralph is a spy who drinks his martinis shaken* (or, for that matter: *Ralph is a Russian spy*) to: *Ralph is a spy*. The general patterns are as in (28).
(28)  a. **Extensionality**
From ‘x is a Mod N₁’ and ‘All N₁'s are N₂'s, and vice versa’ infer: ‘x is a Mod N₂’.

b. **Subsectivity**
From ‘x is a Mod N’ infer: ‘x is an N’.

However, there are counter-examples to both patterns, best known in the realm of adjectives. Even if the pianists and violinists happen to coincide, a *gifted violinist* need not be a *gifted pianist*, but still has to be a *violinist*: hence *gifted* is not extensional but subsective. And while non-subsective extensional modifiers seem hard to find – prenominal non- (as in non-member) might be one, famous intensional cases include *alleged* and *former*: even under the circumstances just considered, an *alleged violinist* need not be an *alleged pianist*, and she need not even be a violinist (or pianist) in the first place.

In the early days of formal semantics (Montague 1970, Parsons 1972), such observations had been used to motivate a ‘worst-case’ strategy to nominal modification, according to which all adjectives, (restrictive) relative clauses, etc. operate on noun intensions (type << throttle, subject, object >>). Properties like intersectivity, extensionality, subsectivity, or the lack thereof, could then be used to plot the landscape of modifiers by way of meaning postulates or similar techniques; see Kamp (1975) for one such map. More recent flexible (lowest-) type strategies prefer a direct reflection on their semantic types, at the same time allowing for modifiers of different types, even among the adjectives. Thus, e.g., many non-subsective adjectives may be reduced to sentence adverbs applying to the internal predication of the noun phrase (type << throttle, subject, object >>); as a case in point, an *alleged/former pianist* is a person who allegedly is/formerly *was a pianist*. However, appearances to the contrary, even the lowest-type strategy leaves some core observations unexplained. In particular, the fact that a modifier is of type << throttle, subject, object >> does not in itself imply that it combines with a modified noun by intersection. Neither does the attribution of type << throttle, subject, object >> to ‘alleged’ etc. in itself determine the proposition its extension applies to. Instead, additional assumptions about constructional meaning are needed, to wit:

(29)  a. **Intersective modification** (modifier type: << throttle, subject, object >>)

(\text{(Mod N)'} \equiv (N \text{ Mod})' \equiv N' \cap \text{ Mod}')

i.e.: x is a Mod N \equiv x is Mod- and x is an N

b. **Propositional modification** (modifier type: << throttle, subject, object >>)

(\text{(Mod N)'} \equiv (N \text{ Mod})' \equiv \lambda x. \text{ Mod}'(N'(x))

i.e.: x is a Mod N \equiv it is Mod- that x is an N

… where the paraphrases make use of suitable (usually homophonic) modifiers of the underlying type. The logical combinations introduced by the above patterns are by no means obvious and need independent justification, e.g. in terms of a theory of type-driven interpretation, which at this particular point remains stipulative.

While this analytic apparatus can be refined to account for a variety of patterns, it does not cover all forms of modification, and also cuts across Cinque’s (2009) distinction between direct modifiers and reduced relatives. Thus, e.g., the paraphrase (30b) of the direct reading (30a) \(\equiv (24b)\) above] suggests that ‘unknown’ underlyingly receives type << throttle, subject, object >> (where q is the type of interrogatives):

(30)  a. Dorit was staying in an unknown hotel.

b. Dorit was staying in a hotel, and it was not known in which hotel Dorit was staying.

On the other hand, the corresponding reduced relative clause reading would call for a straightforward subsective intensional modifier of type << throttle, subject, object >>, subject, object >.

Another lacuna in the semantic classification and analysis of nominal modifiers is the special status of subsectivity as the prevailing pattern. Non-subsective modifiers are not only hard to find, they may also differ with respect to their syntactic behaviour, lacking predicative positions (* John is alleged) or failing to participate in discontinuous nominal constructions (cf. Partee 2010 on Polish byl’ym ‘former’). The special status of subsectivity also appears to show
in the ease with which it is assumed for new adjectives; on coming across sprodentic neurons, a speaker is likely to assume that they form a special kind of neurons, thereby ascribing subsectivity to the (fictitious) adjective sprodentic. The precise nature of such subsectivity presumptions ought to be scrutinized by psycholinguistic experimentation, with respect to both processing and acquisition. As it turns out, pertinent data are harder to come by than it would seem, because subsectivity and intersectivity are not easy to tease apart. Hence the topic could be an ideal area of cooperation between experimental and theoretical approaches to meaning, giving rise to ambitious dissertation projects straddling the border between logical semantics and cognitive science – in search of the most basic compositional mechanisms underlying nominal modification (Bader, Meier, Schulz, Zimmermann).

3.4.3 Inverse Linking

In inverse linking constructions a quantifier embedded in the modifier of a quantified noun may take wide scope with respect to the embedding quantifier. The quantifiers are interpreted in the inverse order of their surface order. Inverse-linking approaches were used to motivate the concept of quantifier movement (May 1985, Heim & Kratzer 1998: 197). In fact, sometimes only an inversely linked reading is available, as for the notorious example in (31) below: the sentence means that in every basket there is one apple that is rotten. The reading where the quantifiers have surface order is odd from a pragmatic point of view – presumably because there cannot be one rotten apple that is simultaneously in all baskets:

(31) One apple in every basket is rotten.

Other examples, like (32), show a true ambiguity: there can be a single picture showing all classmates, or there can be separate pictures for the individual classmates.

(32) Peter besitzt ein Bild von allen Mitschülern.
    ‘Peter owns a picture of all classmates.’

Furthermore, there seems to be a tendency for quantifiers not to have an inversely linked reading if the embedding noun is definite and non-relational:

(33) #The apple in every basket is rotten.

(33) becomes more acceptable when the noun basket receives an ad hoc functional reading, i.e., if every basket can be presupposed to contain precisely one apple (Löbner 1979, M. Zimmermann 2002). While such coercion processes have been investigated in connection with other constructions like possessives (T. E. Zimmermann 1991, Partee 1997, Jensen & Vikner 2011) and concealed questions (Nathan 2006), their role in licensing inverse linking readings has largely been ignored. In particular, their precise nature in terms of pragmatic availability and cognitive complexity are unknown. In fact, the question of how inverse linking is interpreted during language comprehension has not been addressed so far.

Inverse linking is known to contrast with other scope ambiguities that involve independent DPs, as in (34).

(34) Peter verschenkte ein Bild an alle Mitschüler.
    ‘Peter gave a picture to all classmates.’

The preferred interpretation of sentences with syntactically independent quantifiers, as in (34), is the one with surface scope. To the extent that phrase-structural configurations feed the process of interpretation, the same should be true for cases where one quantifier phrase modifies another quantifier phrase, as in inverse linking cases like (33). Comparing the processing of sentences like (34) to the processing of sentences like (33) can therefore provide important
clues about the role of phrase-structural configurations for the process of interpretation. For example, it is interesting to see whether there is a general preference for surface scope in ambiguous examples or not. Although syntactic reasons might favour the surface order, semantic reasons might favour the inversely linked order. Heim & Kratzer (1998: 221f.) discuss several structural accounts for the inverse structure and the surface order structure of rather high complexity. The surface order seems to be more complex in that it necessitates a small clause analysis for the modifier. Investigating whether it takes more time to comprehend/understand the surface order or the inversely linked order will thus be highly informative with regard to language processing at the syntax-semantics interface.

Examples like (33) are interesting from a semantic and pragmatic view as well. Fiengo and Higginbotham (1981) attribute the oddity of (33) to the so-called Specificity Condition that variables (traces and anaphors) must be bound within the definite NP and not from outside. This condition bans quantifier raising out of a definite NP. The Specificity Condition is limited to cases of non-relational nouns. If the head noun is relational, the inverse-linking reading is unproblematic with a definite, as (35) illustrates.

(35) The wife of every soldier receives an allowance.

Moreover, the Specificity Condition seems not to hold if the definite description is novel, but unique (or weakly familiar in the sense of Roberts 2003). As already Fiengo (1987) suggests, the degree of familiarity of the definite description decides on the opacity of noun phrase. Superlative NPs are standard examples for weakly familiar definites. The definiteness contrast is not only observed with respect to scope ambiguities but also with respect to grammaticality judgments as (36) demonstrate.

(36)  a. #Who did you see the picture of?
       b. Who did you see a picture of?
       c. Who did you see the best picture of?

These observations lead to the generalization that a (strong) familiar definite NP is closed for binding into the modifier and a novel (or weak familiar) definite NP is open for binding from outside of the NP. With Fiengo (1987: 165), we may hypothesize that “It is possible that these generalisations can be made to follow from a reasonable theory of discourse reference.” The explanation of these facts will be a nice show case for the interaction of syntax and semantics/pragmatics. Its study will combine the expertise in quantifier semantics (Zimmermann), scope ambiguity (Sailer) and syntactic movement (Webelhuth) with the required empirical basis of corpora and psycholinguistic studies (Sailer, Webelhuth, Bader, Schulz). It will shed new light on the types of definites (Ebert 1971, Schwarz 2009) in natural language and the difference between relational and non-relational nouns.

3.5 Practical issues

3.5.1 Topics for possible dissertations
All dissertations to be written in the RTG share the topic of nominal modification. Each of them will investigate one or more aspects of nominal modification. A few exemplary titles of dissertation are listed below, with potential supervisors and competence teams.

Aspect 1: Internal structure and syntactic layers of nominal phrases
DP-syntax of Old Italian and modern V2 Rhaeto-romance varieties (Poletto, Rinke, Weiß)
The nominal counterparts of complementizers (Rinke, Poletto, Weiß)
Acquisition of nominal recursion in different structures (Schulz, Féry, Kentner, Müller)
Acquisition of determiners in L1 and L2 (incl. heritage language) (Schulz, Rinke, Müller)
Mastery of adjective placement pre/postnominal in L1 and L2 (Schulz)
Development of DP in German (Weiß, Gippert)
Degree expressions and Det-doubling (Weiß, Sailer)
Prosodic and accentual structure of nominal modification in Germanic and Romance languages (Féry, Kentner, Feldhausen)
Functional distribution of "definite" adjectives in Baltic and Slavonic (Gippert, Gelumbeckaitė)
Diachronic development of the "definite" adjective declension in Baltic and Slavic (Gippert, Gelumbeckaitė)
Functional distribution of "strong" and "weak" adjectives in Old Germanic (Gippert, Weiß)
The historical background of the "weak" adjective declension in Old Germanic (Gippert, Weiß)
Adjectival attributes and nominal relative clauses in Indo-Iranian languages (Gippert, Tandaschwili, Gelumbeckaitė)
Definiteness and nominal relative clauses in Indo-Iranian languages (Gippert, Tandaschwili, Gelumbeckaitė)

Aspect 2: External structure, word order and discontinuity
Disambiguation of DP/PP attachment (Bader, Féry, Kentner, Sailer)
The syntactic complexity of prenominal modifier phrases (Bader, Sailer)
Production and comprehension of extraposition of nominal modifiers (Bader, Sailer, Féry, Kentner, Reetz)
The effect of modifiers on the comprehension of discontinuous NPs (Bader, Sailer, Reetz)
Focus realization in nominal modification (Ishihara, Féry, Reetz)
Nominal modification in idiomatic expressions (Sailer, Webelhuth)
Non-optional modification (Sailer, Webelhuth, Meier)
Mastery of extraposition of PP and relative clauses (Schulz, Webelhuth, Walker, Müller)
The extraposition of comparative and result clauses (Webelhuth, Sailer, Féry, Meier, Walker)
Prosodic and syntactic typology of discontinuous nominal phrases (Féry, Feldhausen)
Prosodic recursion in nominal modification (Ishihara, Féry, Kentner)
Participial clauses in a typological perspective (Gippert)

Aspect 3: Modification and Interpretation
The role of subsectivity in adjective acquisition (Schulz, Zimmermann)
Inverse Linking and Specificity (Meier, Zimmermann, Sailer)
Type-driven interpretation of nominal modification (Zimmermann, Sailer, Am-David)
Nominal modification as/or DP-internal predication (Weiß, Zimmermann)
Scope preferences for inverse linking constructions (Bader, Sailer, Meier, Féry)
Mastery of non-local modifications and ambiguous structures (Schulz, Sailer, Zimmermann)
Nominal degree modification and expressivity (Meier, Gutzmann)
Non-restrictive modification and non-truth-conditional meaning (Meier, Zimmermann, Gutzmann)
The role of nominal modification in reference fixing (Meier, Zimmermann, Gutzmann)

3.5.2 International cooperation
• An Erasmus exchange has been established with the Department of Germanic languages of the University of Verona. Birgit Alber and Alessandra Tomaselli investigate the left periphery of Old Romance and plan to investigate the syntax of the Germanic linguistic islands in Northern Italy. An Erasmus exchange also exists with the Department of linguistic and comparative cultural studies of the University of Venice (Guglielmo Cinque and Alessandra Giorgi). A joint MA programme is planned with the University of Venice. There is also an intensive cooperation with Elisabeth Stark of the University of Zurich, who studies nominal phrases in specific and non-specific contexts in Old Romance.

• Concerning dialectal and microvariational issues, there is a cooperation with Norbert Corver and Marjo van Koppen (both University of Utrecht) who were project leaders of Diversity in Dutch DP Design (DiDDD).

• Within the project “Georgian National Corpus” (funded by the Volkswagen Foundation since 2012), which builds upon the TITUS corpus of Georgian, there is a long-standing cooperation with the University of Bergen/Norway (Paul Meurer), the Ivane Javakhishvili State University of
Tbilisi (Darejan Tvaltvadze), the Ilia State University of Tbilisi (Nino Doborjginidze), the Shota Rustaveli State University of Batumi (M. Khalvashi), and other Georgian academic institutions concerning the deep (morphological and syntactical) annotation of textual materials of all periods of the Georgian language.

• COST Action 1027 "Parsing Multiword Expressions". The action brings together researchers from most European countries who are working on linguistic and computational linguistic aspects of fixed expressions. Sailer coordinates the Working Group "Lexicon-Grammar Interface" of the action. The action offers financial support for "Short Term Scientific Missions", which enable young researchers with a phraseological topic to spend up to three months at an institution of a member county of the action. Participation in the action will be open to the RTG members.

• GIF (German Israeli Foundation) project with Sharon Armon-Lotem and Naama Friedman to work on bilingual children with and without specific language impairment (SLI). Cooperation with Philippe Prévost and Laurie Tuller (Tours) in the framework of a French (ANR)-German (DFG) project on bilingual SLI children. In addition, there are a number of international collaborations and contacts resulting from coordinating projects in COST A 33 and COST Bi-SLI.

• Cooperations with Ana Perez-Leroux (University of Toronto) on acquisition of recursion in nominal and or determiners in multilingual children, and with Naama Friedmann (University of Tel Aviv) on child acquisition in typically developing and SLI children. Goethe University (GU) has strategic partnerships with both universities.

• There is an ongoing co-operation between the English Linguistics group and Robert Levine (Ohio State University). Levine is co-authoring a semantics textbook and was co-teaching a course at European Summer School of Logic, Language, and Information (ESSLLI) 2013 with Sailer. He was on Walker’s dissertation committee and is currently also working on a joint publication on extrapolation with Webelhuth. His expertise in English syntax and the interpretive properties of extrapolation and coordination will be especially valuable for graduate students working on the external structure, word order and discontinuity of nominal modification.

4 Qualification Programme

The aim of the RTG is to educate doctoral students to become excellent and interdisciplinary linguists who produce outstanding dissertations and thereby qualify for careers in academia or beyond, both nationally and internationally. The programme of the RTG is conceived to achieve this aim. There will also be supervision, presentations of accomplished progress, and sufficient time to allow for the completion of a dissertation within three years. The students will be strongly encouraged to complement their education with a semester in an internationally recognised department of linguistics (for instance at UPenn). Post-docs and associated researchers will be invited to participate in all activities of the RTG and to take classes as needed.

4.1 Qualification Programme

The RTG courses come in two categories and are supplemented by a general programme offered by the university. Additionally, colloquia and invited lectures will also be offered. English will be the sole language of instruction. Every course is located at Campus Westend (Goethe University) and meets weekly during the semester. The first category of classes consists of courses obligatory for all of the doctoral students (see Table 1). A basic course (Ringvorlesung) in the first year is specifically designed to provide a solid background on major aspects of nominal modification from different perspectives. Each PR will conduct at least one session of the lecture series. The concept aims at establishing an interdisciplinary orientation from the beginning. In a similar vein, an obligatory general colloquium will be a platform where all participants of the RTG are motivated to engage in cross-disciplinary discussions. The general colloquium will continue over the whole grant period. To meet more subject-specific needs, the RTG stu-
Students will participate in one of the colloquia offered regularly by the respective chairs (semantics, phonology, etc.). The participants will have the opportunity there to discuss their work in detail.

Table 1: Obligatory classes for all students

<table>
<thead>
<tr>
<th>Type and years</th>
<th>SWS</th>
<th>Instructor</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic course</td>
<td>60</td>
<td>All PRs</td>
<td>Nominal modification from different perspectives</td>
<td>Students acquire advanced knowledge of various topics pertaining to nominal modification. The interdisciplinary approach is a key concept.</td>
</tr>
<tr>
<td>year 1</td>
<td></td>
<td></td>
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<tr>
<td>Colloquium</td>
<td>30</td>
<td>Spokesperson</td>
<td>General RTG colloquium</td>
<td>Doctoral students present their work in progress. Invited speakers also participate.</td>
</tr>
<tr>
<td>year 1-3</td>
<td></td>
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<tr>
<td>Colloquium</td>
<td>30</td>
<td>Supervisors</td>
<td>Specialized Colloquium</td>
<td>Students are required to read, discuss, and present current scientific literature.</td>
</tr>
<tr>
<td>Year 1-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Expert and research classes cover more specific areas (Table 2). These are small seminars addressing students’ specific interests and giving them the opportunity to present and discuss their own current work. This category consists of optional courses that mainly focus on selected topics of nominal modification. They require sophisticated background knowledge and are particularly suited for advanced doctoral students (2-3 year). Supervisors in both categories (PRs, associated researchers) will offer these classes. The list in table 2 is not exhaustive.

Table 2: Expert and research classes

<table>
<thead>
<tr>
<th>Type and years</th>
<th>SWS</th>
<th>Instructor</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialized/</td>
<td>30</td>
<td>Webelhuth, Walker</td>
<td>Extrapolation</td>
<td>Students acquire expert knowledge on syntax of extraposition.</td>
</tr>
<tr>
<td>class years 2-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized/</td>
<td>30</td>
<td>Weiß</td>
<td>Diachrony and variation of the German DP</td>
<td>Students acquire expert knowledge on the diachrony and variation of the German DP.</td>
</tr>
<tr>
<td>expert class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>years 2-3</td>
<td></td>
<td></td>
<td>Semantics of adjectives</td>
<td>Students acquire graduate level knowledge on the semantics of adjectives.</td>
</tr>
<tr>
<td>Specialized/</td>
<td>30</td>
<td>Meier, Zimmermann</td>
<td>Discontinuous nominal</td>
<td>Syntax, phonology and psycholinguistics of discontinuous constructions.</td>
</tr>
<tr>
<td>expert class</td>
<td></td>
<td></td>
<td>constructions</td>
<td></td>
</tr>
<tr>
<td>years 2-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized/</td>
<td>30</td>
<td>Féry, Bader, Ishihara</td>
<td>Typology of definiteness</td>
<td>Doctoral students acquire knowledge in the typology of definiteness.</td>
</tr>
<tr>
<td>expert class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>years 2-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized/</td>
<td>30</td>
<td>Gippert</td>
<td>Pronominal inflection types of adjectives</td>
<td>Students acquire knowledge in pronominal inflection types of adjectives.</td>
</tr>
<tr>
<td>expert class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>years 2-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized/</td>
<td>30</td>
<td>Gippert</td>
<td>Acquisition of nominal</td>
<td>Students acquire knowledge in acquisition of nominal constructions.</td>
</tr>
<tr>
<td>expert class</td>
<td></td>
<td></td>
<td>constructions</td>
<td></td>
</tr>
<tr>
<td>years 2-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized/</td>
<td>30</td>
<td>Poletto, Rinke</td>
<td>Nominal modifications in Romance</td>
<td>Students acquire knowledge in synchronic and diachronic internal DP syntax in Romance</td>
</tr>
<tr>
<td>expert class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>years 2-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion groups
These are small reading and discussion groups covering the current literature in students' areas of specialisation. They will be partly offered by invited experts.

Transferable Skills Module (GRADE)
In addition to the scientific training programme managed by the RTG itself, the RTG will offer its participants a high-profile training programme in the area of professional skills and career development. In this, it collaborates closely with GRADE – the Goethe Graduate Academy, an education platform for all doctoral students and post-docs at Goethe University. GRADE offers a comprehensive training programme with courses covering fields such as rhetoric, communication, or time management to strengthen key competencies. On the one hand, all GRADE courses are open to the doctoral candidates of the RTG (free of charge for those doing their doctorate at Goethe University). On the other hand, GRADE will organize courses specifically geared towards the needs of the RTG members. These courses will assist PhD students to finish their PhD thesis within 3 years.

Based on long-term experience, GRADE workshops cover the key areas of professional skills training for PhD students during each dissertation phase. At the outset of the RTG, and designed especially for the programme, GRADE will organize a "Get-Started" workshop. This 3-day event is designed as a comprehensive introduction for first-year PhD students. The basic aims of the workshop are the acquisition of theoretical knowledge and of practical skills for the organization of the PhD project. Moreover, the workshop is intended to facilitate communication and networking between the PhD students. This workshop will cover:

- Doing a PhD in the RTG: Organization and basic conditions
- Techniques for Organization and Time Management
- The Basics of Project Management
- Conception and Planning of Research Projects
- Good Scientific Practice / Scientific Misconduct
- Communication

By addressing the theme of Good Scientific Practice and Scientific Misconduct, the workshop will satisfy a key requirement of the DFG concerning the RTG study programme. The workshop plays a pivotal role in the identification of the doctoral students with the RTG and provides key strategies to effectively organize the PhD project.

Upon entering the research and writing phase, RTG participants will benefit from the wide range of courses that GRADE offers in the areas of scientific writing and literature research, poster design and presentation as well as communication skills. With the progression of the dissertation work, and particularly towards the end of this phase, GRADE workshops in leadership skills, team work, career planning and grant application build upon the professional skills conveyed in prior workshops and develop these further in the sense of providing PhD students with transferable skills that give them a head start when entering the academic or non-academic professional sphere. Additional orientation is provided to them by the "Get-Finished" workshop which aims at preparing its participants for the defense of their theses during oral exams and which includes an individual assessment unit. Future options are furthermore explored in a series of events called "Get on the Right Track" that comprises a sequel of career talks presenting the path to success taken by individual outstanding scientists at Goethe University, and introducing companies and non-profit organizations as potential future employers of RTG graduates.

Supervisors as well as the GRADE team support PhD students in their learning processes and give advice on the choice of suitable workshop modules. Workshop plans are tailored to fit in with the specific requirements of individual PhD students. In accordance with the GRADE supervision agreement, RTG members are asked to take at least 4 workshop days per year in the field of professional skills.

In order to promote the autonomy, collaboration and organizational skills among young researchers at an early stage in their careers, RTG members are encouraged to form PhD working groups (DocAGs). In their second year, these groups have the chance to stage a self-initiated small conference or workshop and to invite speakers whose work is of particular rele-
vance for their PhD work and with whom they see themselves discussing their own PhD projects in a constructive manner. DocAGs are eligible to use the premises and the infrastructure of GRADE, and they can apply to GRADE for funding to compensate visiting scholars for their travel expenses as well as to pay them an honorarium.

Excellent MA students could be admitted in some of the classes and/or events offered for the doctoral students. A small number of excellent undergraduate students will be invited to some activities of the RTG, especially the student assistants.

As a supplement to the programme offered by the staff of the RTG, there will also be classes and lectures offered by invited colleagues, specializing in nominal modifications in different guises. This is described in the next section.

4.2 Visiting researchers and Mercator fellows

Visiting researchers will be invited to participate in the training programme for shorter or longer periods of time (between one day and two weeks) as teachers of short courses, conductors of theme-oriented workshops or guest speakers. The following researchers (the list is not exhaustive) have been contacted and have agreed to give a class in the form of a multi-day seminar or one-day lecture visits. Some of them will be invited to give a two-weeks-class, according to the interests of the students:

- Birgit Alber (University of Verona) & Alessandra Tomaselli (University of Pavia): Syntax and morphology of Cimbrian and Mocheno
- Rui Chaves (University of Buffalo): Extraposition and Ellipsis
- Guglielmo Cinque (University of Venice): Syntax of adjectives
- Karin Donhauser (Humboldt University of Berlin): Syntax of adjectives in Old High German
- Gisbert Fanselow (University of Potsdam): Discontinuous DPs
- Naama Friedmann (Tel Aviv University): Extraposition of relative clauses in acquisition
- Alessandra Giorgi (University of Venice): Syntax of the DP in Old Romance
- Ken Hiraiwa (Meiji Gakuin University, Tokyo): CP/DP parallelism
- Bob Levine (Ohio State University): Syntactic-semantic attachment of modifiers/Modification in coordinate structures
- Giuselle Longobardi (University of York) and Cristina Guardiano (University of Modena and Reggio Emilia): Typology of DP-internal syntax
- Rosemarie Lühr (University of Jena): Diachrony of Germanic adjective inflection
- Ana Pérez-Leroux (University of Toronto): Cross-linguistic acquisition of NP recursion
- Tom Roeper (University of Massachusetts Amherst): NP and DPs in acquisition; subordinacy in adjective acquisition
- Thomas Stolz (University of Bremen): Diachrony of Baltic adjective inflection
- Yoad Winter (Utrecht University): Semantic aspects of nominal and verbal modification

Furthermore, we apply for the module “Mercator Fellow” in order to pursue a long-term partnership and exchange with the Department of Linguistics at the University of Pennsylvania (UPenn). The application itself is in the appendix IV. In the following, the Mercator fellowship is summarized briefly.

Mercator fellows will be integrated into the RTG and will participate in its activities on an intensive and long-term base. Some of the fellows will be involved in the supervision of the graduate students and be part of their Advisory Board. Every year, at least one teacher from UPenn will be invited to Frankfurt to stay for a few months (between one and four months). This researcher will teach a class, have contact with the students, and participate to their education, also through video conferencing.

The Mercator fellowship will be implemented in line with the ‘Strategic Partnership’ that Goethe University has established with UPenn (see section 6 below for details). This implies regular exchange in an institutionalized way, which will facilitate the handling of the Mercator
fellowship. The Strategic Partnership and the Mercator fellowship substantially enhance the value of the RTG.

4.3 Additional qualification measures

Additional qualification measures will include the following:
• The doctoral students and the post-docs will be required to visit at least one relevant summer school, for example one of the following: European Summer School of Logic, Language, and Information (ESSLLI), North American Summer School of Logic, Language, and Information (NASSLLI), Deutsche Gesellschaft für Sprachwissenschaft (DGfS), Netherlands Graduate School of Linguistics (LOT), Linguistic Society of America Summer Institute (LSA).
• Regular retreat: Every spring/summer, the entire group (PRs, associated researchers, doctoral students and post-docs) will meet for a weekend. The retreat will provide a forum in which participants can 1) present progress made towards completion of dissertations (all doctoral student will present their progress once a year and 2) increase the cohesion of the group via discussion of joint issues. The retreat will be held at a youth hostel in Taunus.
• Every autumn/winter, an international workshop will take place with 10-15 participants, half of whom will be doctoral students and post-docs of the RTG, the other half international guests. Students in the final stage of their dissertation (or beyond) will be given the opportunity to present their work to an international expert audience. This international workshop will start in the third year of the RTG and will be organized in cooperation with partner universities including UPenn, Göttingen, Potsdam, Zentrum für Allgemeine Sprachwissenschaft (ZAS, Berlin), Venice, and York.

Bridging courses (advanced classes) aim at filling specific gaps and offer solid foundations in a field, thus providing the essential tools for students’ prospective research, see Table 3. They are realized mainly within a co-teaching model, involving PRs and associated researchers. Since a proper understanding of more than one main field is indispensable for conducting successful research in an innovative and interdisciplinary context, participants of the RTG will have to choose at least two advanced class courses within the first two years that do not belong to their respective core research topic. Typically, these courses will be offered as part of the curriculum of MA students.

<table>
<thead>
<tr>
<th>Type and years</th>
<th>SWS</th>
<th>Instructor</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced class years 1-2</td>
<td>30</td>
<td>Zimmermann, Sailer, Meier</td>
<td>Advanced Semantics</td>
<td>Students acquire graduate level knowledge of semantics.</td>
</tr>
<tr>
<td>Advanced class years 1-2</td>
<td>30</td>
<td>NN (syntax), Webelhuth</td>
<td>Advanced Syntax</td>
<td>Students acquire graduate level knowledge of syntax.</td>
</tr>
<tr>
<td>Advanced class years 1-2</td>
<td>30</td>
<td>Féry, Ishihara</td>
<td>Advanced Phonology</td>
<td>Students acquire graduate level knowledge of phonology.</td>
</tr>
<tr>
<td>Advanced class years 1-2</td>
<td>30</td>
<td>Bader, Schulz</td>
<td>Advanced Psycholinguistics/Acquisition</td>
<td>Students acquire graduate level knowledge of psycholinguistics and language acquisition.</td>
</tr>
<tr>
<td>Advanced class years 1-2</td>
<td>30</td>
<td>Weiß, Poletto, Rinke</td>
<td>Advanced Historical linguistics and dialectology</td>
<td>Students acquire knowledge in historical linguistics and dialectology.</td>
</tr>
<tr>
<td>Advanced class years 1-2</td>
<td>30</td>
<td>Reetz</td>
<td>Psycholinguistic experiments</td>
<td>Designing experiments (priming, gating, eye-movement) and their statistical evaluation.</td>
</tr>
</tbody>
</table>
Close cooperation with the linguistics department at UPenn will offer concrete opportunities for exchange of students, post-docs, and faculty. In particular, 2nd and 3rd year students may obtain grants to visit the partner institution to participate in advanced classes and discuss their research with renowned experts in their field. In exchange, the RTG will take on students from UPenn. This cooperation will be organized on an individual basis. If successful, the partnership with UPenn will lead to an International Research Training Group in the second funding period. Cooperation with UPenn is embedded into the concept of Strategic Partnership of Goethe University (see also the letter of intent and the description of the Mercator fellowship in section 7.5 and Appendix IV).

Moreover, exchange students will benefit from the research areas of the partner university that are not represented in their home university. Thus, exchange students visiting the Pennsylvania programme will have the opportunity to gain knowledge in fields like formal pragmatics, experimental semantics, and computational linguistics, fields that Goethe University does not cover as thoroughly. They will be given the opportunity to participate in departmental life and will be integrated in on-going scientific research, in the same way as the graduate students of the RTG. They will have a work space at their disposal, as well as some secretarial support. The surrounding language will be pre-dominantly English, so that there will be no obligation for the students participating in the exchange programme to speak German (fluently).

4.4 For IRTGs: Research visits to the partner institution n/a

5 Supervision and Career Advancement, Gender Equality, Organisation and Quality Management

5.1 Announcement and selection procedure

It is our aim to recruit outstanding national and international doctoral students who will be affiliated with the RTG for a period of 3 years. Advertising will be international, in all relevant print and electronic media, and at selected universities. Admission to the programme will be highly selective. Alongside the usual proofs of qualification, applicants will send in a letter of motivation signalling their research interest, a letter of recommendation, and evidence that they are among the best students in their discipline at their university. Successful applicants will typically have completed a Master’s Programme with high distinction and an excellent thesis in one of the disciplines participating in the degree programme. They will also be strongly motivated to become devoted scholars and professional researchers. Ideally they will already have gathered some professional experience. A selection committee, described in section 5.4, will be appointed to choose the best candidates on the basis of their application dossier and/or interviews (possibly via video conferences).

Post-docs will be recruited for two years according to two criteria: they will be outstanding researchers in the domain of nominal modification, and they will have the qualification to help doctoral students achieve their aims. Their scientific orientation will rotate with every new post-doc, allowing each sub-discipline represented in the RTG to have its post-doc at least once in the 9 years time of the RTG, and ideally even more than once. The selection committee will be responsible for selecting the post-docs.
5.2 Supervision and career advancement

The RTG aims at diversified supervision, with more than one supervisor as a rule. Every doctoral student will be assigned an Academic Advisory Committee by the Steering Board by the end of their first semester (see section 5.4 for organisation of the RTG). Moreover, peer groups will be created in which students will actively participate. The aim is to create an atmosphere in which mentoring and mutual counselling is an everyday situation.

Aiming at a supervision programme that provides optimal support to both supervisors and PhD students, the RTG will again cooperate closely with GRADE. As a cross-departmental graduate academy, GRADE sets the standards for structured doctoral education at Goethe University. GRADE requires a supervision agreement between the doctoral candidate and at least two supervisors who are at the same time members of the respective candidates' Academic Advisory Committee. The supervision agreement regulates important aspects of the dissertation process, such as the time frame for completion of the doctoral studies, meetings with the Academic Advisory Committee, due dates for progress reports, and adherence to good scientific practice. Furthermore GRADE offers individual coaching for doctoral students covering topics such as self-positioning, self-management, resolving conflicts with a supervisor or colleague, crises in the research process, work-life balance, and planning the next career steps.

International PhD students are invited to make use of the courses and events offered by GRADE to cater to their specific needs, such as the "Get-Connected" workshop, German language classes, and last but not least individually tailored support measures that aim at facilitating their arrival and acculturation at Goethe University and its environment: advice with regard to accommodation, residence permits, visa etc.

In view of the highly competitive situation, we would like to encourage young and talented researchers to pursue an academic career. However, it takes some time to sharpen a research profile and to design one's own research project, especially just after finishing a dissertation. For this reason, we are also applying for the DFG Start-up Programme, which helps post-docs to prepare a proposal for third party funding. Up to two junior researchers who have delivered excellent dissertations within the RTG, will have the opportunity to get funding via the DFG programme. Altogether we seek 18 months of funding; individual post-docs will have the possibility to receive up to six months start-up funding. They will be chosen by the Selection Committee on the basis of their excellent performance in the RTG. A pre-condition is scholarly independence and scientific originality plus the desire to pursue an academic career. They will be loosely attached to the RTG without any formal obligation to participate in classes and workshops.

The RTG will offer two internal post-doctoral positions directly attached to it (not to the principal researchers). The post-docs will conduct research in subjects immediately relevant to the topic of the RTG. They need to be trained in skills that are essential to successfully perform independent research. Like all post-docs associated with the RTG, these two internal post-docs will be provided individual mentoring, professional coaching, and support in international networking. They will be encouraged to apply to international conferences and to publish their research in international journals. They will also be involved in teaching and encouraged to act as co-supervisors of students. The post-docs will help enhance communication between students from different academic backgrounds, e.g., by organizing specialised reading groups, according to the specific needs of individual participants. Since their appointments are rather short (maximally 2 years) they will also be encouraged to seek external funding, e.g., as heads of junior research groups (see below for the Start-up Funding concept), and they will be advised and supported in this effort by the PRs. The junior researchers will also be integrated into GRADE, where they can take classes to improve their communication/teaching and teamwork skills, for instance.

The systematic support of junior researchers is an essential element of Goethe University’s strategy to increase the quality of research. Within this strategy, one of the principal objectives is to support the early scientific independence of junior scientists and to guarantee this independence with the help of specific measures. With regard to scientific qualification during the post-doc stage, Goethe University’s Junior Scientists in Focus programme offers support. This competitive funding programme continues the promotion of the early scientific independ-
ence by supporting the preparation of individual research projects and the development of research groups. It is an essential element in career development leading towards a leadership position in the scientific community. The overriding goal of the programme is the promotion of early scientific independence among early career researchers.

With four different lines we will offer support to post-doc researchers in different phases of their scientific career. The focus programme is an additional opportunity for post-doc researchers in the RTG to promote their scientific independence. For early career researchers up to four years after completion of their PhD, Line A, “Funding of the first independent grant proposal” offers a two-day training for writing a first research proposal plus financial support. All post-doctoral researchers employed by Goethe University can also participate in Line D, a career development programme for young researchers. Focus D provides regular exchange over two years in an interdisciplinary group under supervision as well as access to individual workshops on topics that are relevant for a research career. It aims at professionalisation of working in the system of science, development of career strategies and networking.

5.3. Gender equality in research

Goethe University considers both gender equality and diversity as well as work-life balance to be fundamental prerequisites for developing potentials of excellence in research, teaching, and the promotion of young academics.

Gender equality at Goethe-University, strongly anchored in administration and development planning, involves a wide range of measures and instruments. Since 2007 several service centres have been established at GU’s Equal Opportunities Office to promote women and equality, such as Dual Career Service, Family Service, Gender & Diversity Controlling, Gender Consulting. In addition to “Career Support – Training für Wissenschaftlerinnen”, a training program especially designed for female researchers, three major mentoring networks coach women at different stages of their career: “MentorinnenNetzwerk,” “SciMento hessenweit” and “ProProfessur”. For faculties, the Ruth Molfang Fund offers a financial incentive to implement gender equality measures within their field. Also Gender and Diversity Studies are conducted, first and foremost by the Cornelia Goethe Center for Women’s and Gender Studies, an interdisciplinary research institute currently encompassing researchers from 13 different disciplines.

In 2011 and 2013, GU was given the highest rating (Stadium 4) within the DFG’s Research-Oriented Standards on Gender Equality. In 2008 and in 2013 Goethe University successfully participated in the Program for Female Professorships funded by the Federal Government and the States (Professorinnenprogramm I und II des Bundes und der Länder). In 2012, GU received the Total Equality Award. A comprehensive Diversity Concept for the years 2011-2014 complements GU’s gender equality politics.

GU’s commitment to gender equality yields a constant increase of female researchers at all academic career stages, also at the level of professors. Current figures for both faculties participating in the RTG (Faculty 09 – Language and Cultural Studies and Faculty 10 – Modern Languages) as well as for Goethe University in total are shown in the chart below. As of 2012 63% (Faculty 09) respectively 72% (Faculty 10) of all PhD students, and 58% (Faculty 09) respectively 52% (Faculty 10) of post-docs are women. 2010 through 2012 56% (Faculty 09) and 53% (Faculty 10) of all newly appointed professors were women, increasing the percentage of women in professorial positions to 39% (Faculty 09) and 45% (Faculty 10).
Through GEDAP (Gender Equality and Diversity Action Plans for Faculties) the faculties are provided with planning and reporting tools that help them analyse the current situation in their field, plan goal- and demand-oriented measures and monitor the success of those measures’ implementation on a biannual basis.

Support of female scientists

The RTG will support young female scientists in their career and encourage highly qualified women to pursue a long-term academic career, resulting in an increase of women in academic leadership. Specifically, the RTG will undertake the following measures:

- **Recruiting and monitoring:** Scholarships are advertised internationally and interviews are held with the candidates. In accordance with the cascade model, a large part of the scholarships will be awarded to female applicants. Data will be collected regularly to establish criteria. Applying gender and diversity controlling, the RTG will issue a monitoring report that documents the success of the implemented gender-equality measures.

- **Mentoring, training, and coaching:** Mentoring is encouraged for all graduate students of the RTG and issues related to work-life balance or gender equality are integrated into the mentoring. Various training courses are offered within the framework of GRADE: training sessions addressing gender-related topics take place in close collaboration with the gender equality office. Subsidies for up to three individual coaching sessions will be available upon request for PhD students and post-docs.

- **Role Model:** The RTG will invite successful female scientists who give a talk in the RTG to participate in a conversation with the students and to describe crucial steps in their career.

- **Gender and Diversity competence:** Gender & diversity awareness training for leading personnel will be offered.

In order to achieve these goals, the RTG will cooperate closely with the equal opportunities office. If several research centres and RTGs joint efforts and financial resources, a coordinator position for gender equality and diversity in coordinated DFG research projects could be co-funded in the near future. The role of this coordinator will be to leverage synergies across several RTGs and collaborative research centres at Goethe University in an effective way.

Family support

Since 2005, Goethe University holds a certificate awarded by the “audit berufundfamilie”. The Family Service Center at Goethe University supports all its members with advice and service facilities and pushes for an expansion of a family-friendly infrastructure throughout Goethe University. In addition, the Family Service supervises “Goethe Kids”, a network of undergraduate and graduate students with children and provides workshops on work-life-balance on the matter of “Care giving and Elder Care”.

On its campus GU houses five Kitas (childcare facilities) which, altogether, provide 244 children with childcare. GU also maintains four Betreute Kinderzimmer (supervised playgrounds) providing flexible childcare for up to five children each. Furthermore, Goethe University offers childcare programs for schoolchildren during the holiday season, parent-child-rooms as well as numerous facilities for the purpose of nursing and diaper-changing.

<table>
<thead>
<tr>
<th>Kitas Goethe University</th>
<th>opening hours</th>
<th>places / age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Kita</td>
<td>7.45 – 17.15</td>
<td>78 P age 1-7 yrs</td>
</tr>
<tr>
<td>Kita Zauberberg</td>
<td>7.30 – 18.00</td>
<td>30 P age 6 months -7 yrs (+ 60 P starting in 2014)</td>
</tr>
<tr>
<td>Uni-Strolche (Uniklinik)</td>
<td>5.45 – 20.45</td>
<td>60 P age 6 months -7 yrs</td>
</tr>
<tr>
<td>Krabbelstube UNiversum</td>
<td>7.30 – 17.00</td>
<td>11 P age 6 months -3 yrs</td>
</tr>
<tr>
<td>Betreute Kinderzimmer</td>
<td>8.00 – 18.00</td>
<td>20 P age 3 months -7 yrs</td>
</tr>
<tr>
<td>Uni-Kita Bockenheim</td>
<td>7.30 – 17.00</td>
<td>45 P age 1-7 yrs (on campus, but run by a different provider)</td>
</tr>
</tbody>
</table>
The following measures will be taken by the RTG:

- **Childcare:** The RTG will fund extensive childcare needed during conferences, workshops, and seminars for the children of students or guest speakers lecturing at Goethe University, also at off-peak hours. Individual childminders and day nannies with flexible schedules can fill times where childcare is needed at short notice.

- **Travelling:** Travel expenses for children and expenses for additional childcare during trips within Germany and abroad will be reimbursed.

- **Counselling interviews for pregnancy and nursing:** In case of pregnancy, the Family Service Centre and, once established, the adviser on gender equality of the RTG offer counselling for project members. Pregnant and nursing PhD students are assigned a trained student assistant enabling them to carry on with their work.

5.4 Organisation

**Members of the RTG**

The RTG’s staff is composed of the PRs listed above, assisted by a team of junior researchers, and post-docs. Students are members for the period during which they receive grants. Excellent associated students or former grant recipients will not be formally enrolled in the RTG but will be allowed to participate in specific events of the RTG.

**Bodies of the RTG**

The **spokesperson** is responsible for the academic, administrative, and financial aspects of the RTG and for representing the RTG within and outside the university. To guarantee swift functioning of the RTG, an administrative assistant will be at the service of the spokesperson.

All major decisions concerning vital interests of the RTG, its future, and overall distribution of financial means will be made by the **Steering Committee**, which consists of the spokesperson, three additional PRs, two student members of the RTG, and one of the two post-docs. The PR members are elected for one funding period; the students are elected annually by the Student Assembly; the post-docs decide among themselves who is going to represent them. The Steering Committee will meet at least twice a year and make recommendations on future developments, teaching programmes, structural issues and recommends the acceptance of new PRs.

The **Selection Committee** consists of two PRs plus one associated researcher or post-doc and decides on students’ applications for RTG grants. The selection committee may ask for **ad hoc** assistance by further members of the staff in questions of competence.

Each PhD student is assigned an individual **Academic Advisory Committee** composed of experienced researchers who will closely monitor and support the student’s academic progress. Each Academic Advisory Committee is composed of at least the following members: the main supervisor, the second supervisor, a post-doc, and an external advisor. Once a semester, the Academic Advisory Committee meets with the student to assess his or her progress towards completion of the programme, to give feedback, to discuss difficulties and possible solutions, and to jointly plan the student’s next steps.

All student members of the RTG form the **Student Assembly**, which meets at least once a semester to discuss current matters relevant to their education, career-building, and makes suggestions regarding the training and education programme. The Student Assembly also elects two representatives as members of the Steering Committee.
5.5 Additional quality management aspects

A series of additional measures concerning quality management will be implemented in the RTG, some of which are listed here:

• Beside the standard evaluation procedure of Goethe University by means of questionnaires, which will concern all classes listed in table 2, the students and the post-docs involved in the RTG will be invited to evaluate the quality of classes, the supervision, etc. on a regular basis and according to the recommendations of the DFG. In accordance with the students' wishes, evaluations may be anonymous. On the basis of evaluation, measures improving classes and supervision will be discussed and implemented.
• Students and post-docs will also conduct self-evaluations.
• International researchers will be invited according to the needs of the students.
• The students may apply for funding for limited student assistant resources and for conference participation. Applications will be evaluated by the Steering Committee.
• The individual research projects of PhD students, the RTG's qualification programme as well as the supervision tools are subject to continuous evaluation. The results of an annual survey among PhD students are used to optimize further planning of the RTG's programme and events. In order to develop and improve programme units in dialogue with the young scholars involved, a "Round Table" bringing together supervisors and PhD students will be established. This group will meet twice a year to identify potential deficits and to develop strategies of improvement. One of the meetings will take place during the annual internal workshop (see below).
• National and international conferences, publications, careers, students' and PRs' achievements will be documented and statistically analysed for use as a basis for improvement. The information will be used for a comparison among the PhD institutions of Goethe University.

We are aware that archiving data has become an important issue. Within the framework of the LOEWE priority programme Digital Humanities, Goethe University has developed facilities for processing linguistic data on a large scale. In cooperation with Institut für Deutsche Sprache (IDS) Mannheim and other national and international centres within the CLARIN framework, it participates in the development of corpora and tools pertaining to them. The LOEWE priority programme co-operates with the Max-Planck-Institute for Psycholinguistics, Nijmegen, with a view to the long-time storage and maintenance of data to be assembled. The RTG has been warranted full support by the LOEWE priority programme and its partners.

6 Environment of the Research Training Group

The RTG in the research environment of GU Frankfurt

Founded in 1914 by citizens of Frankfurt, Goethe University in Frankfurt am Main is now one of the largest universities in Germany with approximately 42,000 students, 6,500 international students, 5,000 PhD students and more than 600 professors in 16 faculties covering all major scientific disciplines (except engineering). The total annual budget amounts to about 490 million euros; approximately 30 per cent of this budget comes from third party funding. Embedded in a metropolitan area of great economic power, with a sizeable international population and a cosmopolitan spirit, the university is engaged in high-level research and offers academic teaching in a wide spectrum of scientific areas. The quality of both researchers and their collaborative projects is high, and there is a close collaboration with regional, national, and international partners at different levels. The university has embarked on an ambitious campus construction programme and has been undergoing an enormous dynamic change, due to the flexibility created
by the transformation into a Stiftungsuniversität (university with endowed status, Foundation under Public Law) in the year 2008. This transformation also leads to quality offensives in research and teaching, an improved and enlarged cooperation with external partners, and, on a different scale, the construction of numerous new buildings. In Frankfurt’s Westend District a new campus for the humanities and social sciences has emerged, and the Riedberg Science City Campus brings the natural sciences faculties together in close proximity to two Max Planck Institutes. With this institutional autonomy, reflected in independent academic staff recruitment and in independent evaluation procedures, Goethe University has ensured that the quality in research and teaching be steadily improving. It has also continuously diversified its financial resources and is increasingly recognized as a confident, reliable partner in the region.

Goethe University therefore engages in third-party funded research consortia in cooperation with excellent researchers and non-university research institutions, like Max-Planck-Institutes. Moreover, these lateral research consortia represent Goethe University’s key research areas:

- Normative Orders
- Empirical Educational Research
- Biodiversity & Climate
- Heavy ion physics and materials research
- Macromolecular Complexes
- Cardio-vascular-Research
- Cell and Genetic Therapies
- Oncology

Goethe University ensures sustainability, excellence and improvement of these interdisciplinary key research areas by supporting research centres with 2-7 mio. € p.a. and providing core facilities. The current state and organization of the linguistic disciplines at Goethe University meets all the preconditions that are needed for an excellent training environment for young researchers in linguistics. Linguistics will be added shortly to the key research areas of the University. As a first step, the University has admitted Linguistics as one of the GRADE Centres (see below), which embody its main areas of research. Moreover, the University has demonstrated its keen interest in our enterprise in investing 60,000 € in the planning phase of the RTG.

Development of Linguistics as a future/medium-term research focus of GU

Linguistics has been in constant expansion since 2000. In that year, a handful of scholars from various departments of Goethe University joined forces for cooperative research in theoretically and empirically oriented linguistics. Thanks to strategic decisions by the university administration, the group grew during the following years when a number of excellent researchers from various, hitherto underrepresented linguistic sub-disciplines were hired. In addition to existing professorships, the new ones have been created or newly filled recently. 2006: Phonetics, Second Language Acquisition, Historical Linguistics. 2009: English Linguistics, Phonology. 2010: two professorships in Romance languages, Psycholinguistics. 2012: a further professorship for English Linguistics, Empirical Linguistics. The proliferation process has led to a number of large-scale projects, starting with the DFG-funded Research Training Group Sentence Types: Variation and Interpretation (2001–2010). In autumn of 2010, the LOEWE priority programme Digital Humanities, funded by the federal state of Hesse, was granted, and the Research Unit 1783 Relative Clauses (DFG) in the fall of 2011. Nearly all researchers participating in the planned RTG are involved in at least one these enterprises. The participating researchers cover a broad range of areas within theoretical, typological, and empirical linguistics and have already been collaborating successfully on a number of different projects. Thematically, the Research Unit 1783 Relative Clauses is closely related to the RTG and a tight collaboration between the two enterprises is planned.

In sum, Frankfurt linguistics has grown into one of the most active and visible centres in Germany, with currently more than 10 full professors plus some 20 regular (university-funded) junior teaching and research positions. In various respects the current proposal is a natural continuation of this successful development.

As part of a general modernization of academic training (Bologna process), several specialized, research-oriented MA programmes in linguistics have already been installed. As a next
step, and in line with Goethe University’s general policy, the PhD programmes will gradually be adapted to international standards, including obligatory coursework phases and fast-track options. The planned RTG will become an integrated part of this new graduate infrastructure.

The Frankfurt linguistics group has been attracting an ever-increasing number of graduate students and junior researchers from all over the place; at the same time, the number of potential students to be supervised has increased accordingly. The RTG would help making the Frankfurt RTG competitive with other programmes, offering support to the most talented students on the market.

Moreover, structural innovation in the field of junior scientists' training is expected by the way in which the RTG is integrated into the respective GRADE structure, where it will serve both as a "best practice" model as well as a nucleus in its special field of research that has the potential of attracting excellent young scholars from inside and outside Germany and thus contributing to the internationalization of academic culture at Goethe University as a whole. Representing strong fields of research at Goethe University, the GRADE Centres are cross-disciplinary units that teach special research-oriented topics within the scope of structured doctoral education. The RTG will be integrated in the GRADE Centre “Language” providing doctoral education centred on a broad spectrum of language-related topics. As a founding pillar in this Centre, the RTG and its research focus will gain increased visibility at Goethe University, and its integration into a reliable and established structure will enable the continuation of its research, qualification and supervision measures beyond the duration of the period of DFG funding.

Additional support by GU
The University will strengthen the group of linguists by applying a series of measures for the RTG. The university guarantees that the RTG will have five offices at its disposal and will make all reasonable efforts to locate the RTG in the main building of the campus Westend (IG-Farben building). One office will be occupied by the office assistant and student assistants, one office will be occupied by the post-docs, and three offices by the 12 doctorate students. Visitors and Mercator fellows will be hosted by the individual chairs of the department of linguistics, Romance department and English department. In our experience, physical proximity is very important for the intellectual atmosphere, the cooperative spirit and the corporate identity of a group. Furthermore, GU offers free access to seminar rooms for workshops, conferences, and talks organized by the RTG on campus. Access to guesthouses for workshops and accommodation of visitors and Mercator fellows is also guaranteed by the university, in the limits of possibilities.

Furthermore, the university will offer the possibility to apply for short-term fellowships to enable doctoral researchers to finish their degree after the maximum funding period of 36 months has expired. This option will be available to students of the RTG who are close to finishing their dissertation, but need a follow-up funding for a few more months.

The courses offered by teachers involved in the education of doctoral students will be part of their teaching duties, and the spokesperson will be granted a reduction of teaching duties of 2 academic hours per week.

Goethe University supports doctoral and post-doctoral researchers of the RTG through the services offered by GRADE, free German lessons and low-cost language classes offered by the International Study Center. Moreover all researchers have access to numerous sports facilities and classes through the Zentrum für Hochschulsport (ZfH; Center for University Sports). The Goethe Welcome Center offers its service to post-doctoral researchers from abroad and helps them with information, advice and targeted help regarding all matters that are important to prepare for their stay and life in Frankfurt. RTG members with children can use the childcare facilities offered by the university, such as daycare centers, supervised playgrounds (Betreute Kinderzimmer), childcare programs for schoolchildren during the holiday season as well as parent-child-rooms.

Integration in the international research environment
As a more recent development, a tight cooperation with the Linguistics Department of the University of Pennsylvania is on its way. It will involve a bilateral student and faculty exchange programme that will primarily address members of the planned RTG.
In 2012 Goethe University and University of Pennsylvania (UPenn) entered into a strategic partnership that set out to formalize a mature and multi-faceted relationship. Since 2010 Goethe University has been pursuing an approach in its international relations that endeavours to use resources more effectively and to achieve a greater focus and durability of its international partnerships. GU has identified seven leading international universities that match its strengths in research and teaching as well as its reputation, size and location in an international metropolis. In early 2013 this novel approach won over 900,000 Euros of funding from the German Academic Exchange Service (DAAD) for the 2013 to 2016 period. Some of these funds may be used to foster visits of Goethe academics to their UPenn counterparts - an activity that is ineligible for funding under the DFG programme to which this application is being made.

Just like the other six relationships the partnership with UPenn encompasses a wide variety of active individual projects in teaching, research and university administration and strategy. The co-operation started in the area of Business, Economics and Finance in 2002 with a yearly exchange of several students and teaching staff as well as collaborative research projects and publications. With the new DAAD funding the two universities were able to widen their existing partnerships to include collaborative research projects in Romance Languages, Jewish Studies, International Law, Marketing, and Gender Studies as well as several new, fully funded formats of international mobility that supplement the traditional semester exchange: research internships, joint PhD supervision, industry internships and a multi-tiered summer school, the latter to be held in Frankfurt to encourage students from the strategic partner universities to study at Goethe University which in turn enables GU students to spend a semester abroad. These measures are complemented by regular strategy meetings between senior executives of the two universities and an exchange of administrative staff in selected strategic areas such as Fundraising, Marketing, Personnel or Professorial Appointments. UPenn’s President and Provost have been invited to contribute to the University and the City conference in 2014, the international centrepiece of Goethe’s centennial celebrations. The flagship collaborative research project of New Financial Orders combines the two institutions’ world-leading expertise in financial regulation and is set to produce two international conferences (2014 and 2015) in Frankfurt and Philadelphia as well as several high-profile publications.

Overall, the Goethe-UPenn partnership is an asset to both institutions and will continue to be pursued vigorously. The RTG will be a vital activity in the further development of the university partnership.

6.1 Distinction between the Research Training Group and a Collaborative Research Centre: n/a

6.2 Distinction between the proposed and previous Research Training Groups

Several PRs had been among the initiators of the former RTG Sentence Types, which hosted 14 doctoral students and two post-doctoral researchers over a period of 10 years (2000–2010). It has produced more than 30 dissertations; two of the graduate students and four of the post-docs have been hired into professorships since. In our experiences the general factors most decisive for its success were:

- a well defined and confined descriptive topic approached from different theoretical and methodological angles by closely cooperating researchers with different academic backgrounds
- the active participation of post-docs as mediators and mentors encouraging and facilitating cooperation among students
- a single location for all members of the school with sufficient space and commodities for an open-minded and creative atmosphere
- regular informal meetings and classes organized by PIs and post-docs, with and without outside participation
- intensive coaching for students to participate in international conferences and sufficient means for ensuing travel expenses
We will see to it that the new RTG inherits these positive traits from its predecessor. Apart from the topic itself, the most important additional aspects distinguishing it are:

- systematic joint supervision of dissertations
- more involvement on the part of the younger faculty members, including those who are not officially PRs
- close collaboration with a partner institution (UPenn)
- support of GRADE, as explained in the preceding section
Appendix I: Publications and Bibliography (Research Programme)
1. List of published preliminary research relevant to the research programme:

   a) articles which at the time of proposal submission have been published or officially accepted by publication outlets with scientific quality assurance, and book publications


b) other publications


2. Additional references on the state of the art (optional):


