# Revisiting Olga, the beautiful dancer: An intersective A-analysis\*

Claudia Maienborn *University of Tübingen* 

**Abstract** The paper presents a novel semantic account of the so-called "intersective/non-intersective" ambiguity of structures such as beautiful dancer. The proposal contrasts with Larson's (1998) famous N-analysis in taking the adjective as the ambiguity trigger and in unmasking the bracketing paradox perception of the non-intersective reading as a grammatical illusion. The adjective has no compositional access to the verbal root's event argument but is always linked to the referential argument of the noun. -er nominals are analyzed as a special kind of role noun (such as king, guest, judge). They introduce a social role r that manifests itself via the verbal root's e-argument. (However, neither r nor e are compositionally active.) An evaluative adjective such as beautiful introduces an underspecified trope variable, which calls for a pragmatic specification of the adjectival predicate's ultimate target. A general pragmatic parsimony condition ensures that referents introduced by linguistic material are chosen as best target candidates whenever possible. The -er nominal's social role r is an ideal choice in this respect. The linking of the adjective to the verbal root's e-argument is mediated via r and thus a secondary pragmatic effect. The proposal provides a unified analysis for modified -er nominals (beautiful dancer) and other instances of role- and event-related interpretations for adnominal modification such as, for instance, just king.

**Keywords:** ambiguity, bracketing paradox, adjectival modification, -*er* nominals, event semantics, social roles, tropes, compositionality, semantic underspecification, semantics-pragmatics interface

<sup>\*</sup> The research reported on here was supported by the Deutsche Forschungsgemeinschaft (project A1 of the SFB 833 "The Construction of Meaning", and the RTG 1808 "Ambiguity: Perception and Production"). I would like to thank the project members, Sebastian Bücking, Frauke Buscher, Natascha Elxnath, Judith Lauterbach, Sarah Metzger, Anna Pryslopska, Martin Schäfer, and Regina Zieleke for many helpful discussions and comments. Thanks also to the SALT 30 organizers, the LSA, the editorial and technical teams of *Semantics and Pragmatics*, and the Department of Linguistics at Cornell University.

### 1 Introduction

Combinations of adjectives with deverbal nouns are often considered to be bracketing paradoxes. Besides a regular interpretation, where semantic composition proceeds in parallel with the morpho-syntactic structure, they allow for (what looks like) a non-compositional interpretation, in which the adjective seems to have access to the complex noun's internal structure and to combine directly with the verbal non-head. In the latter case, semantics and morpho-syntax seem to fall apart. Classic examples from English are given in (1).

(1) beautiful dancer, heavy smoker, free thinker

In his influential paper from <u>1998</u>, <u>Larson</u> discusses this kind of ambiguity, taking as a core example his famous sentence in <u>(2)</u>. This sentence has two readings, which Larson refers to as "intersective" vs. "non-intersective."

(2) Olga is a beautiful dancer.

Larson (1998: 145)

a. "Intersective reading" (IR): Olga is a dancer & Olga is beautiful

b. "Non-intersective reading" (NIR): Olga is beautiful as a dancer / Olga dances beautifully

Larson proposes a solution that derives both readings by compositional means. He ascribes the source of the ambiguity to the noun and develops – what he calls – an "N-analysis" by making compositionally accessible an additional Davidsonian event argument within the noun. In essence, his proposal amounts to assuming that the *-er* nominal *dancer* has two referential arguments, one for the event of dancing e, and one for the agent x. Both e and x can be compositionally targeted by an adnominal modifier.<sup>2</sup> A simplified representation of the resulting semantic structures (based on Winter & Zwarts 2012: 2) is provided in (3).

(3) a. [dancer]:  $\lambda x \lambda e [dance (e) \& agent (e, x)]$ 

b. [beautiful]:  $\lambda y$  [beautiful (y)]

c. [[beautiful dancer]]:  $\lambda x \lambda e$  [dance (e) & agent (e, x) & beautiful (x)] IR

λx λe [dance (e) & agent (e, x) & beautiful (e)] NIR

As (3) shows, the two readings are treated as compositionally equivalent, and the non-intersective reading of the adnominal adjective is taken to be identical to the respective adverbial interpretation. As Larson (1998: 154) puts it: "[T]he link is

Throughout this paper I will use "IR" and "NIR" as shorthand designations for the two readings. As we will see shortly, the so-called non-intersective reading can also be given an intersective analysis. Nevertheless, I will follow Larson in taking "NIR" as a convenient label for the respective reading.

<sup>&</sup>lt;sup>2</sup> This requires a change within the compositional machinery; see Larson's (1998:152) additional syntax-semantics interface rule (12c).

captured between *beautiful dancer* and *dance beautifully*." Two particular merits of Larson's analysis are: First, the allegedly non-intersective reading of (2) does not require an intensional analysis of the adjective (as proposed by <u>Siegel 1976</u>) but boils down to simple predicate intersection.<sup>3</sup> And, secondly, the event-relatedness of the non-intersective reading is made transparent.

Several further developments and alternative technical implementations for Larson's analysis have been suggested in the meantime, for example, Winter & Zwarts' (2012) reformulation of Larson's proposal within a richer syntactic model, or Egg's (2006, 2008) scope ambiguity account.<sup>4</sup> They all share with Larson the assumption that the source of the ambiguity resides in the noun (N-analysis), and that the two readings are derived compositionally within the grammar, i.e., either at the syntax-semantics interface or already at the level of syntax.

The aim of the present paper is to develop a novel semantic account of apparent bracketing paradoxes such as (1) and (2) which preserves the merits of Larson's approach and avoids its shortcomings. The proposal differs from Larson-style solutions in taking the adjective as the ambiguity trigger (rather than the noun) and in adhering strictly to standard composition (rather than liberalizing the syntax-semantics interface). I will unmask the bracketing paradox interpretation as a grammatical illusion and argue for a simple, intersective A-analysis. In short, there is no grammatically licensed linking of the adjectival modifier to the non-head of a complex noun. What gives the impression of a syntax-semantics mismatch is a blending of compositional and pragmatic processes: Semantic composition warrants that the adjectival predicate is always linked to the referential argument of the nominal head. However, due to the internal semantics of the adjective, semantic underspecification emerges in the course of composition and calls for a pragmatic specification of the adjectival predicate's ultimate target. A general pragmatic parsimony condition ensures that referents introduced by linguistic material will be chosen as the best, "cheapest" target candidates whenever possible. In this account, Larson's intersective /non-intersective ambiguity is an issue of the semantics-pragmatics interface.

The paper is organized as follows. Section 2 summarizes relevant aspects of Larson's N-analysis and discusses crucial flaws. In section 3, I propose an alternative A-analysis that preserves the standard compositional semantics for intersective

<sup>&</sup>lt;sup>3</sup> See Larson's (1998) criticism of Siegel's (1976) intensional "A-analysis" for the NIR.

<sup>&</sup>lt;sup>4</sup> Winter & Zwarts (2012) reformulate Larson's analysis in more standard compositional terms, by making accessible the two referential arguments (e and x) one by one at different functional layers within the nominal syntax. This allows them to retain the standard assumption that each phrase has only one referential argument. Note that this move turns the intersective/non-intersective ambiguity into a syntactic ambiguity. Egg (2006, 2008) analyzes *beautiful dancer* as a scope ambiguity between the adjective and the nominal affix and accounts for it within a general underspecification formalism, which resolves the ambiguity at the syntax-semantics interface.

modification. Furthermore, I argue for an analysis of *-er* nominals as event-based role nouns. <u>Section 4</u> shows how the intersective/non-intersective ambiguity is derived at the semantics-pragmatics interface. <u>Section 5</u> presents some concluding remarks.

## 2 A closer look at Larson's (1998) N-analysis

For a proper evaluation of Larson's proposal, it is crucial to have a clear understanding of its range of application: For which nouns is Larson's theory meant to apply? Which nouns involve a hidden e-argument that may be targeted by an adnominal modifier? The examples mentioned so far have all been instances of deverbal nouns. The embedding of an e-argument is morphologically transparent in this case. Larson (1998: 159) takes these nouns to be "of roughly verb-like character." This is a legitimate justification – so he argues – for postulating an additional event argument within the noun. But what are the limits of assuming hidden, but compositionally accessible event arguments within nouns? Should the proposal be confined to morphologically transparent cases, or does it have a broader coverage? Taking up suggestions first made by Vendler (1967) with respect to the sentence pair in (4), Larson argues for the latter approach. He points out that both the expression just ruler in (4a) and just king in (4b) have non-intersective readings, which may be paraphrased as 'somebody who rules justly' and 'somebody who executes his royal office justly', respectively. Yet, whereas this reading can be related to the embedded verb to rule in the case of ruler in (4a), for king in (4b) there is no corresponding verb \*to king. Larson follows Vendler in assuming that this is just a lexical accident and that the noun king should pattern with ruler in including a hidden event argument, which may be targeted by an adnominal modifier.

- (4) a. Arthur is a just ruler. Arthur rules justly. Larson (1998: 159)
  - b. Arthur is a just king. \* Arthur kings justly.

That is, *just king* receives an event analysis on a par with the morphologically transparent case of *just ruler*; see Larson (1998: 159). But then – Larson continues to ask – where should we stop? For instance, what about the examples in (5)? They

<sup>&</sup>lt;sup>5</sup> Larson (1998: 159) argues that also nouns with a clear stative or eventive counterpart such as, e.g., friend – friendship, cellist – cello playing belong to this class. Under this assumption, the well-known ambiguity of the NP old friend can be easily accounted for by relating the adjective either to the nominal referent or to the embedded state argument. In the former case, we get the IR: 'a person in a state of friendship (to somebody else), and this person is old'. The latter case yields the NIR: 'a person in a state of friendship (to somebody else), and this state is old'; see Larson (1998: 146f).

also support an interpretation in which the adjective is linked to some hidden event related to the noun and makes some kind of manner contribution.<sup>6</sup>

(5) a. daily newspaper 'appears daily' see Larson (1998: 160)
b. stray bullet 'went astray'
c. fast horse 'runs fast'
d. quick cup of coffee 'is drunk quickly'

Larson (1998: 160f) opts against also extending his N-analysis to examples such as the ones in (5) for two main reasons. First, there is no systematic link between the noun and the relevant activity that is invoked when adding the adjective. For instance, the adjective's predication of high velocity in (5c) does not relate to a state of 'horsiness'. Motion is no inherent feature of the meaning of *horse*. And secondly, Larson observes a difference concerning the attributive and the predicative use of the adjective. Whereas with, for instance, *fast horse* and *quick cup of coffee* the event-related reading is preserved when the adjective is used predicatively, it disappears in the case of, for example, *beautiful dancer* or *old friend*. Only the intersective reading survives in this case; see (6):

(6)	a.	That dancer is beautiful.	only IR
	b.	That friend is old.	only IR
	c.	That horse is fast.	preserves event-related reading
	d.	That cup of coffee was quick.	preserves event-related reading
			see Larson (1998: 161)

Larson (1998: 161) concludes that the event-related reading observed for expressions of type (6c/d) requires a different explanation (presumably in terms of coercion), and that his N-analysis should be reserved for the (6a/b) case. Thus, the pattern in (6) serves Larson as an instrument for detecting the kind of hidden nominal event arguments for which his approach is meant. The predication test may be taken as a diagnostic for determining the range of application of Larson's N-analysis; see also Winter & Zwarts (2012).

So that is Larson's line of argumentation. In the following I want to discuss two problematic aspects of his approach which cast doubts on the overall N-analysis. The first criticism concerns the predication test as a diagnostic for hidden event arguments in Larson's sense. Upon closer scrutiny the results of the predication test turn out to be rather messy. Note that Larson's own core example *just king* does not

<sup>.</sup> 

<sup>&</sup>lt;sup>6</sup> The special case of adnominal frequency adjectives such as *daily newspaper* in (5a) or *occasional sailor* has attracted increased attention in recent years. In particular, several formal semantic solutions have been proposed to account for their "adverbial reading"; see <u>Bücking (2014)</u> for a survey and critical discussion. Bücking advocates a coercion analysis framed within <u>Asher</u>'s (2011) Type Composition Logic for this case.

pass the predication test. In the predicative use, the event-related reading is preserved; see (7a). That is, *just king* patterns with *fast horse* in (6c) in this respect and would therefore have to be excluded from Larson's N-analysis. Moreover, many morphologically transparent deverbal nouns do not pass the test either. They all preserve the event-related reading when the adjective is used predicatively; see (7b-d). Note that this is even the case for Larson's paradigmatic noun *dancer*, for instance, in combination with the adjective *elegant*. In (7e) the copula sentence preserves the event-related reading, according to which it is the manner of dancing that is judged as elegant.

(7)	a.	just king	That king was just.
	b.	just ruler	That ruler was just.
	c.	strict teacher/judge/examiner	The teacher/judge/examiner is strict.
	d.	unfair defender/rapporteur	The defender/rapporteur was unfair.
	e.	elegant dancer	That dancer was elegant.

Thus, based on (7e), we would have to conclude that *dancer* has no hidden event argument. But how then to account for its behavior in (6a)? The comparison of (6a) and (7e) already hints at the need to take into account the adjective as a decisive factor in the presence or absence of event-related readings. This is not expected under Larson's N-analysis approach.

Finally, also in the (6c/d) case matters are not as crystal clear as Larson's presentation suggests. For instance, *quick trout* and *quick cigarette* both have an event-related reading (e.g., a quickly moving trout; a quickly smoked cigarette); see <u>Bücking & Maienborn</u> (2019) for a detailed discussion. In the former case this reading is preserved under predication, while in the latter case the event-related reading disappears; see (8).

(8) a. quick troutb. quick cigaretteThe trout is quick.# The cigarette is quick.

To sum up, whatever may turn out to be the deeper reason for the blocking of event-related readings in the case of (6a/b), it is not suitable as a criterion for determining the range of application of Larson's theory. The predication test does not provide a suitable diagnostic for detecting hidden e arguments in Larson's sense. In fact, we lack a reliable criterion that could take on this task.

My second objection concerns Larson's assumption that the non-intersective reading is basically identical with an adverbial interpretation of the adjective. This claim turns out to be too strong. Note, first, that in German the non-intersective reading for Larson's classic sentence (2) is strongly dispreferred; see (9a). This is not expected under Larson's analysis, given that (i) the adverbial variant in (9b) is

perfectly fine, and (ii) similar adjectives such as, for example, *elegant* readily support the respective non-intersective reading; see (9c/d).<sup>7</sup>

```
(9)
                 ist eine schöne
                                     Tänzerin.
                                                        √IR
                                                                 ??NIR
     a.
           Olga
           Olga
                 is
                           beautiful dancer.FEM
           Olga
                 tanzt
                           schön.
     b.
           Olga
                 dances
                           beautifully
           Olga
                 ist eine elegante Tänzerin.
                                                        √IR
                                                                 √NIR
     c.
           Olga
                 is
                           elegant
                      an
                                     dancer.FEM
           Olga
                           elegant.
     d.
                 tanzt
                           elegantly
           Olga
                 dances
```

The data in (9) provide a puzzle for Larson's N-analysis: if the deverbal noun provides a compositionally active event argument, and the adverbial combination of the evaluative adjective *schön* ('beautiful') is well-formed, *schön* should pattern with its companion word *elegant* in readily supporting a non-intersective reading for the adnominal combination – which is not the case.

Let me expand on the behavior of *schön* in (9a) for a moment. What are the conditions under which a non-intersective reading might be accepted after all? Interestingly, this is only possible if the context provides an actual event of Olga dancing. That is, *schöne Tänzerin* only allows an event-related interpretation according to which Olga is involved in a contextually salient actual event of dancing (which the speaker is experiencing). I will call this reading 'actual NIR'; see (10c). However, *schön* does not support the regular dispositional event reading of *-er* nominals along the lines of (10b); from now on: 'dispositional NIR' for short. For *schön*'s co-companion word *elegant*, in contrast, the dispositional event reading is easily available; see (11b). As for the actual event reading, *elegant* patterns with *schön* again: the reading in (11c) is only available given strong contextual support in terms of a contextually salient actual event of dancing by Olga.

(10) Olga ist eine schöne Tänzerin.

- a. IR: ✓ Olga is a dancer & Olga is beautiful
- b. dispositional NIR: \* Olga has the disposition to dance beautifully
- c. actual NIR: ✓ Olga is involved in an actual event of dancing beautifully (only with strong contextual support)

<sup>&</sup>lt;sup>7</sup> There seems to be some disagreement among native speakers of English concerning the availability of NIRs. While a NIR is unanimously accepted for *elegant dancer/singer/author* and unanimously rejected for *beautiful author*, judgments differ with regard to *beautiful dancer/singer*. For some native speakers of English *beautiful* seems to pattern with German *schön* in hardly tolerating NIRs, whereas for others *beautiful* patterns with *elegant* in readily allowing this interpretation. In the following discussion I won't question Larson's claim that *beautiful* may readily receive a NIR and will contrast this case with German *schön* and English/German *elegant*.

(11) Olga ist eine elegante Tänzerin.

- a. IR: ✓ Olga is a dancer & Olga is elegant
- b. dispositional NIR: ✓ Olga has the disposition to dance elegantly
- c. actual NIR: ✓ Olga is involved in an actual event of dancing elegantly (only with strong contextual support)

I will come back to this difference between dispositional and actual readings in Section 4. For the moment, I want to point out that (i) dispositional and actual event readings are two variants of Larson's NIR which we should keep apart in order to get a clearer picture of what is going on;<sup>8</sup> (ii) actual NIRs differ from dispositional NIRs in depending heavily on contextual support; and (iii) otherwise similar adjectives such as German *schön* and *elegant* (and maybe also German *schön* as opposed to English *beautiful*) may differ as to whether they support a dispositional NIR.

Besides this crosslinguistic/crosslexical argumentation concerning *beautiful*, *schön*, and *elegant*, there are further reasons to reject Larson's claim that the non-intersective reading corresponds to the respective adverbial combination. Larson's account forces the adjective to target the event argument of the verbal root. This yields incorrect results for a sentence such as (12a).

- (12) a. Olga was a fair loser.
  - b. # Olga lost the race fairly.

It is not the proper event of losing that proceeds in a fair way. Losing is not an activity that can be controlled and willingly performed in different ways (under regular circumstances, at least). This is why the adverbial use of *fair* in (12b) is unacceptable. A fair loser is someone who reacts in a fair manner to a defeat. By incorporating the referential argument of the verbal root into the deverbal noun and making it accessible as a compositional anchor for adnominal modifiers, Larson establishes an immediate link between the adjectival predicate and the verbal event, identical to the adverbial constellation. The example *fair loser* shows that this connection is too tight. For the adnominal case, more flexibility is needed.

\_\_\_\_

Winter & Zwarts (2012: 6) mention this difference in passing but then decide to collapse the two readings by binding the noun's e-argument uniformly by an existential quantifier. That is, they take what I call the actual event interpretation as the general case. Larson (1998: 154ff) considers a generic binding of e, which would correspond to the dispositional NIR; see Section 3 below. Note that many questions concerning the handling of Larson's hidden e-argument within the noun still remain open within Larson's approach. (Where is e bound? By which operator? And what are the deeper implications for the compositional machinery?) The A-analysis that I will propose as an alternative to a Larson-style N-analysis does not assume any compositionally active hidden event arguments within the noun and thus does not require further interventions at the syntax-semantics interface. In Section 4, I will discuss how dispositional and actual event readings can be derived at the semantics-pragmatics interface within this framework.

Finally, there is a class of adjectives such as English *trained* and *celebrated* in (13a) or German *ausgebildet* and *gefeiert* in (13c) – I will call them "role adjectives" – that give rise to non-intersective readings, as well. Yet, they cannot be used adverbially; see (13b)/(13d).

- (13) a. Olga is a trained / celebrated dancer.
  - b. \* Olga dances trainedly / celebratedly.
  - c. Olga ist eine ausgebildete / gefeierte Tänzerin.
    Olga is a trained / celebrated dancer.FEM
  - d. \* Olga tanzt ausgebildet / gefeiert.
    Olga dances trained / celebrated

The adjectives in (13a)/(13c) do not predicate over Olga – this corresponds to the intersective reading – nor do they specify the manner of Olga's dancing – this would be Larson's adverbial analysis of the non-intersective reading. Rather, the adjectives provide further information about the dance role taken on by Olga. That is, role adjectives such as the ones in (13), in fact, establish a link to the verbal event argument, but this link is less direct than Larson's adverbial analysis assumes.

In sum, my main objections to Larson's proposal are, first, that it does not provide a systematic criterion on which to decide whether a certain noun has a hidden event argument or not. Secondly, establishing a direct compositional link between the adjective and the event argument of the *-er* nominal's verbal root yields incorrect results (see *schöne Tänzerin*, *fair loser*, *trained dancer*) and raises fundamental, still unresolved compositionality issues. Furthermore, no difference is drawn between actual and dispositional variants of the NIR.

## 3 An intersective A-analysis

The alternative solution I want to propose for the apparent bracketing paradox defends a more conservative notion of composition and makes do with a very simple, surface-oriented syntax. The adjective has no compositional access to word-internal structures but can only target the (unique) referential argument of the noun. Rather than assuming some hidden compositional complexity within the noun, I advocate an "A-analysis." The trigger for the observed intersective/non-intersective ambiguity is located within the adjective on this view. Importantly, however, the ambiguity is not derived in the course of composition but only shows up at the semantics-pragmatics interface.

Let me start by outlining my assumptions concerning the semantics of evaluative adjectives. I propose an analysis of adjectives like *beautiful*, *elegant*, etc. as underspecified trope predicates. Tropes are particular property manifestations in an individual (= their bearer); see <u>Moltmann</u> (2007, 2009, 2013) and <u>Maienborn</u> (2019). Within this ontological setting, I assume that evaluative adjectives express

an evaluation of some semantically underspecified trope of their referential target. In the case of, for instance, *beautiful/ugly*, this is a positive/negative aesthetic evaluation; see McNally & Stojanovic (2017). For our current purposes, I will abstract away from irrelevant details (such as variables for degrees or judges) and assume (14) as the lexical entry for *beautiful* with r as a free variable ranging over tropes. (In the following, semantic type restrictions on a predicate's arguments are added as subscripts to the first appearance of the respective variable.<sup>9</sup>)

(14) [beautiful]: 
$$\lambda y_{\text{ENTITY}}$$
 [bearer ( $r_{\text{TROPE}}$ , y) & beautiful (r)]

According to (14), beautiful qualifies its compositional target argument y as being the bearer of some trope r that is judged as beautiful. Providing a contextually plausible specification for r is the task of pragmatics. Take the adnominal modification in (15) as an illustration. The compositional result of combining beautiful with dress in (15b) expresses that some underspecified trope of the dress is judged as beautiful. This could be, for instance, its shape, its color, its design, etc. (or a combination of several of its properties).

(15) a. [dress]:  $\lambda x_{PHYS}$  [dress (x)] b. [beautiful dress]:  $\lambda x_{PHYS}$  [dress (x) & bearer ( $r_{TROPE}$ , x) & beautiful (r)]

Evaluative adjectives may involve further restrictions concerning the trope variable r. Whereas *good/bad* are maximally neutral with regard to what property of their target argument they evaluate, an adjective such as *expensive* evaluates the price of its target (r<sub>PRICE</sub>), *elegant* its style (r<sub>STYLE</sub>), *fragrant* addresses olfactory properties (r<sub>OLFACTORY-TROPE</sub>) and *garish* visual properties (r<sub>VISUAL-TROPE</sub>), etc. In the case of *beau-tiful/ugly*, r should probably be confined to sensory properties (r<sub>SENSORY-TROPE</sub>). I will come back to this issue when discussing the contrast between English *beautiful* and German *schön*. What is crucial for our purposes is that evaluative adjectives call for the pragmatic specification of their free trope variable r in order to be interpretable. The fewer type restrictions on r there are, the more options we have to specify r's value.

As for -er nominals, it is usually assumed that they have a habitual interpretation, which is based on binding the verb's event argument by a generic operator GEN; e.g., Krifka et al. (1995). A typical lexical entry for our paradigmatic example dancer is provided in (16): for contextually relevant generic eventualities e involving x, x is the agent of a dancing event; see, e.g., Morzycki (2019: 38).

See <u>Asher</u>'s (2011) Type Composition Logic (TCL) for a formal framework that combines compositional semantics with a rich conceptual type system and is therefore particularly well suited to studying the interaction of grammar-driven composition with pragmatic enrichment and adaption. <u>Bücking & Maienborn</u> (2019) propose a detailed account of (regular and coercive) adnominal modification within this framework. For ease of readability, I will use a simplified TCL notation here and gloss over technical intricacies whenever possible.

(16)  $[dancer]: \lambda x_{HUMAN} GENe_{EVT} [relevant_C(e, x)] [dance (e) & agent (e, x)]$ 

More recently, <u>Cohen</u> (2010, 2016) has argued against taking -er nominals to be identical to habituals. Rather, they should be analyzed as dynamic modals. As such they encode a subject's disposition, its ability to act in a certain way when appropriate stimulus conditions are given; see also the discussion in <u>Lieber & Andreou</u> (2018). I will follow this line of thinking and propose an implementation that makes use of <u>Zobel</u>'s (2017, 2019, 2020) ontological notion of social roles. Zobel conceives of social roles as abstract entities that are related to individuals. They do not reflect inherent, natural properties of individuals but are based on cultural adscriptions. <sup>10</sup> Examples are provided by role nouns such as *king*, *judge*, *lawyer*, *doctor*, *student*, *guest*, *friend*, *customer*, *expert*, etc. Social roles manifest themselves by means of characteristic activities (e.g., king – rule a kingdom, doctor – treat patients, student – study, guest – visit host, etc.), and they are typically assigned to individuals in certain inaugurating events (e.g., king – coronation, doctor – licensing, student – enrolment, guest – invitation, etc.).

In the following, I will model social roles as a subtype of tropes (SOCIAL-ROLE  $\sqsubseteq$  TROPE). The lexical entry for the role noun *king* is given in (17). According to (17), *king* denotes the set of individuals that are bearers of a king-role.

(17) [[king]]:  $\lambda x_{HUMAN} \exists r'_{SOCIAL-ROLE} [bearer (r', x) \& king (r')]$ 

Against this background, I want to propose an analysis of -er nominals as event-based role nouns. They assign an individual a social role that manifests itself in those activities that are referred to by the verbal root. The respective lexical entry for *dancer* is provided in (18). That is, *dancer* denotes the set of individuals that are bearers of a social role that manifests itself in dancing activities.

(18) [dancer]:  $\lambda x_{HUMAN} \exists r'_{SOCIAL-ROLE} GENe_{EVT}$  [bearer (r', x) & manifest (r', e) & dance (e) & agent (e, x)]

The proposal in (18) takes into account Cohen's (2010, 2016) concerns: -er nominals are related to but not identical with habituals. They assign individuals a social role that manifests itself in a dancing habit. On this view, -er nominals are a subclass of role nouns. They express roles whose manifestation in terms of characteristic activities is morphologically transparent. These assumptions concerning -er nominals suffice our present demands. What is crucial in our context is that role nouns and -er nominals involve an additional role variable r' – and -er nominals include additionally the verbal root's event argument e. However, both, r' and e are bound and not compositionally active anymore. The only argument that is compositionally active and accessible for adnominal modifiers is the head's referential

73

<sup>&</sup>lt;sup>10</sup> Similar ideas have been put forward by <u>de Swart et al.</u> (2007), who argue for an ontological category of capacities; see Zobel (2017, 2019, 2020) for a more thorough discussion and comparison.

argument x. Standard intersective modification will lead to (19) and (20) as a result of the semantic composition for *beautiful dancer* and *just king*, respectively (with the trope SOCIAL-BEHAVIOR as the type restriction for r in the case of *just*).

- (19) [beautiful dancer]:  $\lambda x_{HUMAN} \exists r'_{SOCIAL-ROLE} GENe_{EVT}$  [bearer (r', x) & manifest (r', e) & dance (e) & agent (e, x) & bearer (r\_{TROPE}, x) & beautiful (r)]
- (20) [just king]:  $\lambda x_{HUMAN} \exists r'_{SOCIAL-ROLE}$  [bearer (r', x) & king (r') & bearer ( $r_{SOCIAL-ROLE}$ )]

In prose, beautiful dancer in (19) denotes the set of individuals x that are bearers of a social role r' that manifests itself in dancing activities e and which are furthermore bearers of an underspecified trope r that is evaluated as beautiful. Accordingly, just king in (20) denotes the set of individuals x that are bearers of a king-role r' and which are furthermore bearers of an underspecified social behavior r that is judged as just. This is what the compositional machinery yields. Crucially, the composition leads to a single semantic representation. Due to the contribution of the evaluative adjective this representation is semantically underspecified and, therefore, calls for pragmatic specification.

## 4 The semantics-pragmatics interface

The semantic representation of expressions such as *beautiful dancer* requires a pragmatic specification of the evaluative adjective's free trope variable r. The compositional conditions on r, that have been collected in the course of composition, are (i) the lexical type restrictions on r stemming from the adjective and (ii) the type restrictions that are inherited in the course of identifying the noun's referential argument as the bearer of r. These are the grammatically determined, semantic requirements for the interpretation of *beautiful dancer*. Within these boundaries, pragmatic reasoning may take into account additional, contextually salient world knowledge in order to find plausible instances for the trope variable r.

What kind of world knowledge is activated for the interpretation of an expression such as *beautiful dancer*? What properties relating to individuals that bear a dancer role could be judged as beautiful? Two possible solutions come to one's mind immediately, because they don't rely on any specific contextual assumptions. First, there is a natural mapping from all kinds of physical objects to (some aspect of) their physical appearance, which may be evaluated and judged as meeting the standards for beauty.<sup>11</sup> Second, the individual's dancer role provides a suitable target for evaluation, given that SOCIAL-ROLE is a subtype of TROPE; see the discussion

<sup>11</sup>See also <u>Asher</u>'s (<u>2011</u>: 257ff) discussion of *good mathematician*. For the sake of simplicity, I will assume a function 'phys-appearance' that maps a physical object to the respective trope.

on <u>(17)</u>. The first solution will lead to <u>Larson</u>'s IR, the second solution corresponds to (the dispositional variant of) his NIR; see <u>(21)</u> and <u>(22)</u>.

- [21) [beautiful dancer]: with r = phys-appearance (x) IR  $\lambda x_{HUMAN} \exists r'_{SOCIAL-ROLE} GENe_{EVT}$  [bearer (r', x) & manifest (r', e) & dance (e) & agent (e, x) & bearer ( $r_{TROPE}$ , x) & beautiful (r) & r = phys-appearance (x)]
- [22) [beautiful dancer]: with r = r' dispositional NIR  $\lambda x_{HUMAN} \exists r'_{SOCIAL-ROLE} GENe_{EVT}$  [bearer (r', x) & manifest (r', e) & dance (e) & agent (e, x) & bearer  $(r_{TROPE}, x)$  & beautiful (r) & r = r']
  - =  $\lambda x_{\text{HUMAN}} \exists r'_{\text{SOCIAL-ROLE}} \text{ GENe}_{\text{EVT}} [\text{bearer } (r', x) \& \text{ manifest } (r', e) \& \text{ dance } (e) \& \text{ agent } (e, x) \& \text{ beautiful } (r')]$

Note that in this analysis the two readings do not differ as much as Larson's approach suggests. Both readings share a common semantic representation, which includes an underspecified trope variable r. It is not only in the NIR case that the adjectival predicate does not apply to its compositional target argument, but also in the IR case. According to the IR analysis in (21), it is not Olga as such who is beautiful, but (some aspect of) her physical appearance. And according to the dispositional NIR analysis in (22), it is Olga's dancer role that is evaluated as beautiful. This is not the same as evaluating her dancing. That is, the current proposal differentiates between evaluating a social role and evaluating its characteristic activities, whereas these two aspects are conflated in Larson's approach to the NIR; see his wording in Larson (1998: 145), cited above in (2b). What is then the link between being beautiful or elegant as a dancer and dancing beautifully/elegantly? On the present view, this link corresponds to an additional inference based on default knowledge. We know that qualities and judgments applying to social roles typically carry over to the activities by which they manifest themselves – always provided that the selectional restrictions of the pertinent predicate are met. In TCL, default knowledge of this kind is formalized in terms of defeasible type specification rules using a modal logic with a weak conditional operator '>'; see Asher (2011: 227ff). The following rules may serve as an illustration for our sample cases.

(23) bearer (r, x) & TYPE (r)  $\sqsubseteq$  SOCIAL-ROLE & manifest (r, e) & agent (e, x) & TYPE (e)  $\sqsubseteq$  ACTIVITY & Q (r) > Q (e)

The rule in (23) says that for bearers x of social roles r whose manifestations are activities e performed by x, predicates Q that apply to r typically carry over to e. This rule accounts for inheriting predicates over social roles to their characteristic

activities. Its application will eventually lead to the manner interpretation of an adnominal modifier.<sup>12</sup> For *elegant dancer*, for instance, applying the default rule in (23) will lead to the pragmatic specification in (24).

```
(24) [elegant dancer]:
```

dispositional NIR

=  $\lambda x_{HUMAN} \exists r'_{SOCIAL-ROLE} GENe_{EVT}$  [bearer (r', x) & manifest (r', e) & dance (e) & agent (e, x) & elegant (r') & elegant (e)]

According to (24), the expression denotes individuals whose dancer role is evaluated as elegant and whose habitual dancing is therefore also judged as elegant. For rule (23) to apply it does not matter whether the relation between r and the activities by which r manifests itself is morphologically transparent, as in the case of -er nominals like dancer, or whether this relationship is based on world knowledge, as in the case of role nouns such as king, guest, lawyer, etc. The rules in (25) may suffice as simplified approximations to exemplify this piece of world knowledge.

```
(25) a. TYPE (r) 

KING & TYPE (e) 

ACTIVITY & manifest (r, e) > rule (e)
b. TYPE (r) 

GUEST & TYPE (e) 

ACTIVITY & manifest (r, e) > visit (e)
c. TYPE (r) 

LAWYER & TYPE (e) 

ACTIVITY & manifest (r, e) > give-legal-advice (e)
```

d. Type (r)  $\sqsubseteq$  loser & type (e)  $\sqsubseteq$  activity & manifest (r, e) > deal-with-loss (e)

Based on the knowledge coded in (25a), for example, we are allowed to apply rule (23) and infer that *a just king* denotes a person whose king role is evaluated as just and who is therefore judged as ruling his country in a just manner.

Note that *-er* nominals such as *winner* or *loser*, whose verbal base belongs to the class of achievement verbs, differ from run-of-the-mill *-er* nominals in that these verbs do not specify the characteristic activities by which these social roles manifest themselves.<sup>13</sup> Under the present approach, they pattern with role nouns such as *king*. That is, the activities by which these *-er* nominals manifest themselves are not lexically coded but determined by world knowledge; see, e.g., (25d) for the case of *loser*. Together with the default rule (23) this leads to the correct manner

<sup>&</sup>lt;sup>12</sup>Presumably, the type of predicates Q, for which this inheritance from roles to their characteristic activities is licensed, should be further restricted. I will refrain from delving deeper into these conceptual issues. The rules in (23) and (25) are only meant to give a rough impression of the kind of world knowledge and default assumptions that are involved in the process of pragmatic type specification. Formal attempts to explore more thoroughly the interlocking of lexical and encyclopedic knowledge are still rare. However, there is a growing awareness that semantics should address this task and will benefit from such investigations; see also the plea by McNally (2005) for the integration of richer knowledge resources into formal semantics.

<sup>&</sup>lt;sup>13</sup>This is one of the reasons why <u>Lieber & Andreou</u> (2018) reject a uniform dispositional analysis for all -*er* nominals and opt for an underspecification approach.

analysis for *fair loser* as someone who deals fairly with a loss; see the discussion on (15).

Besides evaluative adjectives, there are other adjectives which might target the hidden role argument of role nouns, hence giving rise to NIRs; see (13). Role adjectives select for social roles and provide further information about these roles and the events by which they are executed, inaugurated, or terminated; see the examples in (26a/b) with basic role nouns and -er nominals.

- (26) a. trained nurse, enrolled student, appointed professor, celebrated artist, selfemployed artisan, registered client, prudent tradesman, corrupt judge, fraudulent business partner, resigned king, dismissed minister
  - b. trained / celebrated / unemployed / underpaid / retired dancer, substitute teacher, volunteer helper

Since role adjectives select for social roles, their predicates cannot percolate down to the activities by which social roles manifest themselves. Thus, the application of rule (23) is blocked. This explains why the combination of -*er* nominals with role adjectives leads to NIRs but the respective adverbial use is ungrammatical; see (13).

What about German *schön*? Remember that *schön* differs from *elegant* in not licensing the dispositional NIR (although its adverbial use is perfectly fine); see the discussion on (10) vs. (11). I want to argue that *schön* is more restrictive with respect to the type of tropes it evaluates. I assume that *schön* is confined to making an aesthetic judgment about sensory properties (r<sub>sensory-trope</sub>) of its target argument, that is, properties of an entity that are accessible to our sensory system and which are therefore concrete. Thus, the lexical entry for German *schön* would be as in (27).

(27)  $[sch\"{o}n]$ :  $\lambda y_{ENTITY}$  [bearer ( $r_{SENSORY-TROPE}$ , y) & beautiful (r)]

This excludes an identification of *schön*'s free r variable with social roles, which are abstract tropes: SENSORY-TROPE $\square$ SOCIAL-ROLE =  $\bot$ . That is, *schöne Tänzerin* does not support a pragmatic specification that identifies r and r' as in (22) but strongly prefers a pragmatic specification that identifies r as the dancer's physical appearance as in (21). Further evidence that *schön* is incapable of evaluating social roles is provided in (28).

(28) Olga ist eine schöne Mutter / Ehefrau / Königin / Freundin / Chefin / Autorin.
Olga is a beautiful mother / wife / queen / friend / boss / author

None of the German examples in (28) allows an interpretation in which *schön* evaluates Olga's social role of acting as a mother, wife, queen, friend, etc. Rather, *schön* always evaluates her physical appearance. I leave it for future research to investigate in more detail the crosslinguistic differences between English *beautiful* and German *schön* and their implications for a theory of lexical semantics.

Finally, what about the actual NIR variant, according to which Olga is involved in an actual event of dancing beautifully or elegantly? As mentioned earlier, this reading is only marginally acceptable and is heavily dependent on appropriate contextual support; see the discussion on (10) and (11) in Section 2. It requires that the discourse context include an actual dancing event to which the speaker may refer. For lack of space I will refrain from providing a formal analysis of this marginal reading. Let me just sketch the core idea: If the context provides a sufficiently salient actual activity e<sub>i</sub> for x, an underspecified trope r of x may be identified as the manner of x executing its agent role in e<sub>i</sub>. <sup>14</sup> That is, under the actual NIR variant, beautiful dancer denotes the set of dancers which are involved in an actual event of dancing beautifully. This leaves open whether these dancers have the general disposition to dance beautifully or not. The adjectival predicate does not relate to the verbal root's e argument but only to the contextually salient actual event e<sub>i</sub>. <sup>15</sup> For the time being, these assumptions concerning the actual NIR may suffice.

Why is it that those pragmatic specifications that lead to the IR and the dispositional NIR are strongly preferred over alternative solutions such as the actual NIR? This follows from a general pragmatic economy principle: choose the simplest solution with the fewest linguistically non-supported additional assumptions! More specifically, I propose the principle in (29), which is based on Maienborn (2003: 496).<sup>16</sup>

(29) Preference principle for the pragmatic specification of free variables: Free variables are instantiated preferentially by linguistically introduced material, always provided that all the given requirements are met.

In view of the economy principle (29), the dispositional NIR in (22) is particularly parsimonious. By identifying the free variable r with the deverbal noun's role argument r', it relies only on explicitly introduced linguistic material. Thus, without

<sup>&</sup>lt;sup>14</sup>This raises interesting further questions concerning the nature of thematic roles as opposed to social roles. The behavior of *schön* suggests that thematic roles (agent, patient, etc.) are concrete subtypes of tropes which are accessible to our sensory system. It seems likely that this is due to their double dependence on both the eventuality and the participant. I leave this issue for future research.

<sup>&</sup>lt;sup>15</sup>Note that the context might also prompt other actual events as ultimate targets for the adjectival predicate. Under appropriate conditions, *a beautiful dancer* could also refer to, e.g., a dancer that plays soccer beautifully (and could therefore enhance the dancer team in a soccer tournament).

<sup>&</sup>lt;sup>16</sup>In <u>Maienborn</u> (2003), this preference principle is employed for the pragmatic specification of verbadjacent modifiers (e.g. to escape on bicycles, to sleep on the back, to prepare the chicken in a marijuana sauce). <u>Bücking</u> (2009) makes use of it for the interpretation of AN compounds, and <u>Maienborn</u> (2020) relies on it for the analysis of so-called "bracketing paradoxes" composed of an adjective and an NN compound, such as the German katholisches Kirchenoberhaupt 'catholic church.head'. This diversity of usages indicates that an economy principle such as (29) is of general importance for the semantics-pragmatics interface.

any further contextual support, this will be the preferred interpretation.<sup>17</sup> The IR interpretation in (21) is a bit more costly in this respect, because it calls for some additional world knowledge (i.e., the mapping of individuals to their physical appearance). The actual NIR, in contrast, and even more so solutions that rely on more ramified pragmatic specifications (such as, e.g., dancers who are playing soccer), don't fare well with respect to the principle (29) and will only be considered if the context strongly enforces them. Crucially, however, all these readings are derived from the same compositional input, using the same mechanisms for pragmatic specification. That is, in the present approach, deriving the various potential interpretations for an -er nominal with an evaluative adjective can be considered a unitary phenomenon at the semantics-pragmatics interface. The IR and the dispositional NIR interpretation have no special status as far as composition and the processes of pragmatic specification are concerned. What makes them stand out is that they are particularly parsimonious and therefore optimal pragmatic solutions in view of the economy principle (29).

### 5 Conclusion

The present proposal unmasks the bracketing paradox perception of structures such as *beautiful dancer* as a grammatical illusion. On the perspective developed here, the adjective has no access to the noun's internal structure. In particular, there is no grammatically established, compositional linking of the adjective to the verbal root's e argument. The linking of the adjectival predicate to e is mediated via the role noun's r argument and, thus, a secondary pragmatic effect. The relevant event-related reading – <u>Larson</u>'s NIR – is only one among several possible pragmatic specifications of a semantically underspecified representation. This reading is special not in terms of composition, but in terms of how it complies with pragmatic economy conditions. It uses only linguistically licensed information. This makes it an optimal pragmatic solution with respect to the economy principle (29). And this is what leads to the bracketing paradox illusion in those cases in which the hidden e argument is morphologically transparent.

The advocated analysis retains two crucial merits of Larson's proposal: First, what – at first sight – looks like non-intersective modification is reduced to simple intersective predicate conjunction. And, secondly, Larson's concern that the event-relatedness of the non-intersective reading must be made transparent is accounted for. Larson is right in rejecting a solution in which the NIR is only one among many potential contextual specifications. However, Larson's assumption of a direct compositional link of the adjectival predicate to the noun's hidden event argument turns

-

<sup>&</sup>lt;sup>17</sup>Of course, this preference only holds under the presumption that *beautiful* really patterns with *elegant* in readily allowing the application to social roles. There seems to be some disagreement among native speakers of English whether this is indeed the case or not; see note 7.

out to be too rigid and makes incorrect predictions. Our review of the data has shown that a certain amount of pragmatic flexibility is needed in order to properly account for the full range of interpretations and the particular status of Larson's NIR. In the present approach, the event-relatedness of the NIR results from the joint work of the lexicon, grammar, and pragmatics: The relevant conditions are rooted in the lexicon in terms of the semantic underspecification of evaluative adjectives and hidden (and inactive!) role and event arguments in *-er* nominals. They are further processed and constrained by the grammar in the course of composition. And, finally, pragmatic economy in the form of the preference principle (29) favors an interpretation which exploits linguistically provided information as particularly parsimonious, making such an interpretation the optimal pragmatic solution.

The present proposal agrees with Larson that the event-related interpretations for NPs of the type *beautiful dancer* and *just king* should be treated on a par. But rather than modeling *king* along the lines of *dancer* and assigning both nouns hidden event arguments, as Larson proposes, it takes the opposite way and analyzes *dancer* following the general pattern of *king*. What these nouns have in common is a hidden role argument, and it is due to this role argument that event-related interpretations come into play: social roles manifest themselves in terms of characteristic activities. In the *dancer* case, this connection is morphologically transparent; in the case of *king*, it is part of our encyclopedic knowledge. Further studies in this area offer promising opportunities to shed more light on the still rather uncharted territory of our rich conceptual knowledge resources and the systematic means they provide to shape and enrich the interpretation of natural language expressions.

### References

- Asher, Nicholas. 2011. *Lexical Meaning in Context: A Web of Words*. Cambridge: Cambridge University Press. doi: 10.1017/CBO9780511793936.
- Bücking, Sebastian. 2009. German nominal compounds as underspecified names for kinds. In Susan Olsen (ed.), *New Impulses in Word-Formation (Linguistische Berichte Sonderheft 17*). Hamburg: Buske. 253–281.
- Bücking, Sebastian. 2014. The semantics of frequency adjectives. *Proceedings of CLS 48* (2012). 93–107.
- Bücking, Sebastian & Claudia Maienborn. 2019. Coercion by modification The adaptive capacities of event-sensitive modifiers. *Semantics and Pragmatics* 12(9). 1–39. doi: 10.3765/sp.12.9.
- Cohen, Ariel. 2010. Habituals, -*Er* Nominals, and Modality. Talk at Genius II: Dispositions, Abilities, and States. Paris, June 2010.
- Cohen, Ariel. 2016. A semantic explanation for the External Argument Generalization. *Morphology* 26. 91–103. doi: 10.1007/s11525-016-9281-8.

- Egg, Markus. 2006. Anti-Ikonizität an der Syntax-Semantik-Schnittstelle. Zeitschrift für Sprachwissenschaft 25. 1–38. doi: 10.1515/zfs.2006.001.
- Egg, Markus. 2008. Reference to embedded eventualities. In Johannes Dölling, Tanja Heyde-Zybatow & Martin Schäfer (eds.), *Event Structures in Linguistic Form and Interpretation*. Berlin: Walter de Gruyter. 149–172. doi: 10.1515/9783110925449.149.
- Krifka, Manfred, Francis Pelletier, Gergory Carlson, Alice ter Meulen, Gennaro Chierchia & Godehard Link. 1995. Genericity: An introduction. In Gregory Carlson & Francis Pelletier (eds.), *The Generic Book*. Chicago: University of Chicago Press. 1–125.
- Larson, Richard K. 1998. Events and modification in nominals. In Devon Strolovitch & Aaron Lawson (eds.), *Semantics and Linguistic Theory (SALT)*, vol. 8, 145–167. Ithaca, NY: CLC. doi: 10.3765/salt.v8i0.2803.
- Lieber, Rochelle & Marios Andreou. 2018. Aspect and modality in the interpretation of deverbal *-er* nominals in English. *Morphology* 28. 187–217. doi: 10.1007/s11525-018-9321-7.
- Maienborn, Claudia. 2003. Event-internal modifiers: Semantic underspecification and conceptual interpretation. In Ewald Lang, Claudia Maienborn & Cathrine Fabricius-Hansen (eds.), *Modifying Adjuncts*. Berlin: Mouton de Gruyter. 475–509. doi: 10.1515/9783110894646.475.
- Maienborn, Claudia. 2019. Events and states. In Robert Truswell (ed.), *Handbook of Event Structure*. Oxford: Oxford University Press. 50–89. doi: 10.1093/oxfordhb/9780199685318.013.6.
- Maienborn, Claudia. 2020. Wider die Klammerparadoxie: Kombinatorische Illusionen beim Adjektivbezug auf NN-Komposita. Zeitschrift für Sprachwissenschaft. doi: 10.1515/zfs-2020-2009.
- McNally, Louise. 2005. Lexical representation and modification within the noun phrase. *Recherches linguistiques de Vincennes* 34. doi: 10.4000/rlv.1395.
- McNally, Louise & Isidora Stojanovic. 2017. Aesthetic adjectives. In James O. Young (ed.), *Semantics of Aesthetic Judgements*. Oxford: Oxford University Press. 17–37. doi: 10.1093/acprof:oso/9780198714590.003.0002.
- Moltmann, Friederike. 2007. Events, tropes and truthmaking. *Philosophical Studies* 134(3). 363–403. doi: 10.1007/s11098-005-0898-4.
- Moltmann, Friederike. 2009. Degree structure as trope structure: A trope-based analysis of positive and comparative adjectives. *Linguistics and Philosophy* 32. 51–94. doi: 10.1007/s10988-009-9054-5.
- Moltmann, Friederike. 2013. On the distinction between abstract states, concrete states, and tropes. In Alda Mari, Claire Beyssade & Fabio Del Prete (eds.), *Genericity*. Oxford: Oxford University Press. 292–311. doi: 10.1093/ac-prof:oso/9780199691807.003.0011.
- Morzycki, Marcin. 2019. *Modification*. Cambridge: Cambridge University Press.

- Siegel, Muffy E. A. 1976. *Capturing the Adjective*. University of Massachusetts, Amherst, MA. PhD dissertation.
- de Swart, Henriette, Yoad Winter & Joost Zwarts. 2007. Bare nominals and reference to capacities. *Natural Language and Linguistic Theory* 25. 195–222. doi: 10.1007/s11049-006-9007-4.
- Vendler, Zeno. 1967. *Linguistics in Philosophy*. Ithaca, NY: CLC. doi: 10.7591/9781501743726.
- Winter, Yoad & Joost Zwarts. 2012. Event orientated adnominals and compositionality. In *Proceedings of Annual Meeting of the Israeli Association of Theoretical Linguistics*, Tel-Aviv.
- Zobel, Sarah. 2017. The sensitivity of natural language to the distinction between class nouns and role nouns. In Dan Burgdorf, Jacob Collard, Sireemas Maspong & Brynhildur Stefansdottir (eds.), *Semantics and Linguistic Theory (SALT)*, vol. 27, 438–458. Ithaca, NY: CLC. doi: 10.3765/salt.v27i0.4182.
- Zobel, Sarah. 2019. A role-based account of the role-specifying use of English predicative *as*-phrases. Ms, Universität Tübingen.
- Zobel, Sarah. 2020. Zur Determiniererlosigkeit bei prädikativ verwendeten zählbaren Nomen im Deutschen: Korpusdaten und ihre Konsequenzen. To appear in *Linguistische Berichte*.

Claudia Maienborn
German Department
University of Tübingen
Wilhelmstr. 50
72074 Tübingen, Germany
claudia.maienborn@uni-tuebingen.de