Ljudmila Geist*

Predication over aspects of human individuals

https://doi.org/10.1515/ling-2019-0028

Abstract: Predicate nouns in German, as well as in other languages, may occur bare or with an indefinite article. This alternation is possible with role nouns, which refer to well-established aspects of individuals such as professions and nationalities. Bare NPs differ from indefinite NPs in that they have restricted meaning, are number neutral and are restricted in modifiability. In the literature, these peculiarities received different explanations. The new account combines previous analyses and is based on the following assumptions: the noun that projects an indefinite NP denotes a kind, while the noun projecting a bare NP denotes a capacity. This difference corresponds to the difference in predication: indefinite NPs predicate about the whole individual assigning it membership in a certain kind, while bare NPs predicate only about one social aspect of the individual, identifying it with a certain capacity. Since bare predication concerns only one aspect of the individual, it is partial. Bare predication can now be considered under a broader view of partial predication, a phenomenon very common in argument alternations, and can be analyzed with the tools that have proved effective in this domain. The approach to bare predication taken here thus has a larger empirical coverage.

Keywords: bare noun, predicate noun, nonverbal predication, binding, DP-structure

1 Introduction

In German, as in most European languages, sortal nouns in predicate position occur with an indefinite article as indefinite NPs (henceforth INP), cf. (1). However, a restricted group of nouns such as names of professions or religious denominations occur without an article as a bare NP (henceforth BNP), cf. (2). Bare predication of this sort has been attested, for example, in Dutch, Norwegian, French, Italian and Brazilian Portuguese (e. g. Beyssade and

***Corresponding author: Ljudmila Geist,** Institut fur Linguistik/Germanistik (ILG), Universität Stuttgart, Postfach 10 60 37, 70049 Stuttgart, Germany,
E-mail: ljudmila.geist@ling.uni-stuttgart.de

Dobrovie-Sorin 2005; Borten 2003; Munn and Schmitt 2005; de Swart et al. 2007; Zamparelli 2008).

(1) a. *Lea ist eine Frau.*
Lea is a woman
'Lea is a woman.'
b. *Lea ist ein Genie.*
Lea is a genius
'Lea is a genius.'

(2) a. *Lea ist Lehrerin.*
Lea is teacher
'Lea is a teacher.'
b. *Udo ist Katholik.*
Udo is Catholic
'Udo is a Catholic.'

As observed in the literature on BNPs in German (Geist 2006; Hallab 2011) and other Germanic and Romance languages (for Dutch, see de Swart et al. 2007, for French, see Roy 2013), nouns regularly used without the indefinite article refer to particular roles in society. These nouns have been referred to as "role nouns." Besides professions and religious denominations, there are other subtypes belonging to this group, cf. (3). With nouns that have been called "class nouns," the article must be used: such nouns denote subsets of humans like *Mann* 'man', inherent properties like *Genie* 'genius' and evaluative properties like *Feigling* 'coward'.

(3)

Role nouns[1]	Class nouns
– professions (*Übersetzer* 'translator')	– subsets of humans (*Mann* 'man')
– religious denominations (*Katholik* 'Catholic')	– inherent properties (*Genie* 'genius', *Held* 'hero')
– hobbies (*Alpinist* 'alpinist')	– evaluative properties (*Feigling* 'coward', *Heulsuse* 'crybaby', *Engel* 'angel')
– functions (*Minister* 'minister')	...
– nationalities (*Italienerin* 'Italian')	
– occupations (*Student* 'student')	
...	

1 As indicated, the list of role and class nouns is not exhaustive. For example, role nouns can be complemented by nouns denoting medical and psychological conditions such as *Diabetiker* 'diabetic', *Autist* 'autist', addictions and habits such as *Alkoholiker* 'alcoholic', *Raucher* 'smoker', and character traits such as *Realist* 'realist', *Pessimist* 'pessimist'.

Role nouns can also occur with an indefinite article, but then they are interpreted as class nouns; cf. the translation of a Dutch example from de Swart et al. (2007) into German:

(4) a. *Henriëtte ist Managerin.*
Henriëtte is manager.F
'Henriëtte is a (professional) manager.'
b. *Henriëtte ist eine Managerin.*
Henriëtte is a manager.F
'Henriëtte is a manager.'

In (4a), the BNP *Managerin* 'manager' is associated with the profession. The meaning of the corresponding INP in (4b) is, however, vague. (4b) means that Henriëtte behaves like a professional manager or has properties of a professional manager without necessarily actually being a professional manager. Thus, the INP with a role noun, like a class noun, refers to inherent properties of the individual, rather than to a profession.

The literature on bare predication in different languages (Beyssade and Dobrovie-Sorin 2005; Le Bruyn 2013; Mari and Martin 2008; Matushansky and Spector 2005; Roy 2013; de Swart et al. 2007; Zamparelli 2008) shows that BNPs differ from INPs with respect to the following properties: BNPs have an institutionalized meaning, they are number neutral and they are very restricted in their modifiability. The meaning of INPs is not as restricted, they are not number neutral and they can be modified by different types of adjectives.

In the literature, different analyses were proposed to account for these peculiarities: Beyssade and Dobrovie-Sorin (2005); Mari and Martin (2008); and de Swart et al. (2007). In their influential analysis de Swart et al. (2007) explain the differences through the different denotation of the head nouns of BNPs and INPs: nouns projecting INPs denote kinds while nouns projecting BNPs denote capacities, particulars of a different sort.

Authors such as Beyssade and Dobrovie-Sorin (2005) and Mari and Martin (2008) have a different view. They suggest that sentences with BNPs and INPs mainly differ in the type of predication. More specifically, Mari and Martin (2008) propose that the predicate BNP predicates not over the whole individual but rather over some part or aspect of it. I think that this is a promising view. A crucial argument in favor of treating bare predication as predication over aspects of individuals instead of predication over total individuals comes from the construction in (5). Here the social aspect of the individual, its profession, is explicitly used as a subject of predication.

(5) *Leas Beruf ist Lehrerin / *eine Lehrerin.*
Lea's profession is teacher.F a teacher.F

Interestingly, in this case only a BNP can occur in the predicate position. This suggests that, in a language that allows BNPs and INPs, the predication over social aspects must be bare. I will assume that since BNPs ascribe properties to an aspect of an individual, they are involved in "partial predication," while INPs predicate over the whole individual and are involved in what can be called "total predication." The first aim of this paper is to work out the idea of partial predication and to integrate the different accounts of nominal predication into a new account.

The second aim of the paper is to bring bare predication as a type of partial predication into a broader context. Partial predication is a common phenomenon in argument alternations. Many constructions with partial predication can be found in Levin's seminal book on argument alternations (Levin 1993); cf. the following alternations.

(6) Body-part alternation
a. *Mary touched the horse's back.*
b. *Mary touched the horse (on the back).*

(7) Argument factoring alternation
a. *He admires Ann's courage*
b. *He admires Ann (for her courage).*

The referents of the object *the horse* in (6) and *Ann* in (7) are involved in the respective eventuality only partially. In (6) it is a body part of the horse and in (7) it is an aspect of Ann which are involved. In the base variant in (6a) and (7a) this partiality is encoded internally in the complex DP. The possessor can be conceived as a total individual, and the possessed object as its part. In the b-constructions of (6) and (7) the possessor and the possessed part are realized as two separate syntactic units. The possessed part has the status of an optional adjunct-PP. The possessive relation between the possessor and the possessed part can be captured by a binding relation indicated by coindexation, as shown in (8a) for (6b) and in (8b) for (7b).

(8) a. [*Mary touched the horse$_i$ on its$_i$ back*]
b. [*He admires Ann$_i$ for her$_i$ courage*]

In this paper I will show that clauses with BNPs have much in common with argument alternations of the type (6) and (7). The commonalities become

obvious if we look at bare predication as a type of alternation, cf. (9a/b). In (9a) the subject of predication is a partial object, the professional aspect of Lea. The partiality is encoded DP-internally. In (9b), however, the possessor of the social aspect is realized as a separate argument, the subject. The possessed part, the profession of Lea, is realized in the adjunct PP *von Beruf* 'by profession'. Like in (6b) and (7b), the realization of the PP introducing the possessed object is optional but irrespective of whether it is realized, it is still an obligatory part of the interpretation. It is crucial that *Lea* as the subject of the clause in (9b) is involved in predication only partially: the clause qualifies Lea's profession rather than Lea herself.

(9) a. *Leas Beruf ist Lehrerin.*
Lea's profession is teacher.F
'Lea's profession is to teach.'
b. *Lea ist Lehrerin (von Beruf).*
Lea is teacher.F by profession
'Lea is a teacher by profession.'

Since bare predication patterns with argument alternations involving partial predication, a binding analysis should also be possible for the former. The binding relation between Lea and her profession in (9b) can be made explicit if we decompose *von Beruf* into *von ihrem Beruf her* 'by her profession' and assume that the possessive pronoun is obligatorily bound by *Lea* as shown in (10).

(10) [Lea_i *ist Lehrerin von* $ihrem_i$ *Beruf her*]
Lea is teacher.F by her profession PART

The recognition of the commonality between bare predication and other constructions of partial predication leads to a new perspective on bare predication that helps to refine its analysis. As suggested in the literature on argument alternations, the rearrangement of arguments in constructions like (7b), (8b) and (9b) can be analyzed similarly to the rearrangement of argument structure in the passive and middle voices. All these cases have to do with a verbal diathesis, and the realization of the argument structure is determined by a particular Voice head. Hole (2012, 2014) suggests that in constructions with partial predication the Voice head simultaneously induces binding, as envisaged by Kratzer (2009). To model partiality in bare predication, I will make use of the binding mechanism in verbal diathesis proposed by Hole (2012, 2014) and further developed in application to argument alternations in Geist and Hole (2016). This new approach to bare predication has a larger empirical coverage.

The structure of the paper is as follows. In Section 2, I present the properties of BNPs and INPs. In Section 3, I evaluate previous analyses of BNPs and use them as a basis for a new analysis. Section 4 develops a step-by-step analysis of INPs and BNPs. Section 5 exhibits how INPs and BNPs are integrated into the clause. Section 6 concludes the paper. The Appendix contains the detailed compositional semantics, combined with the syntactic analysis of bare predication.

2 Properties of BNPs and INPs

2.1 Nonreferentiality

It has been assumed that in predicational copula sentences, predicate NPs are nonreferential (Higgins 1979; Doron 1988). But what is a predicational sentence? In the literature, two core classes of copula sentences have been identified: the so-called equative or identity class and the predicational class. Equative sentences like (11) assert that the referent of the expression *morning star* and the referent of the expression *evening star* are identical. By contrast, in a predicational sentence like (12), the property expressed by the predicate noun phrase *a bright star* predicates of the morning star the property of being a bright star. Semantically, only the subject NP denotes an individual and is of type e, while the predicate noun phrase *a bright star* is nonreferential and denotes a property of type ⟨e,t⟩.

(11) *The morning star is the evening star.* (equative/identity)

(12) *The morning star is a bright star.* (predicational)

Thus, predicative *be* takes a complement of type ⟨e,t⟩, while equative *be* takes a complement of type e. Partee (1987) provides a test for the identification of ⟨e,t⟩-type NPs. It is known that complements of *consider* and *become* are of the ⟨e,t⟩ type. In such positions, NPs can be conjoined with APs. She assumes that constituent conjunction requires identical types, and as adjectives are treated as type ⟨e,t⟩, the predicate NP *an authority on unicorns* in (13a) must be a nonreferential expression similar to adjectives. (13b) shows that proper names and personal pronouns, which cannot ordinarily be of type ⟨e,t⟩, cannot serve as arguments of *consider*.

(13) a. *Mary considers John competent in semantics and an authority on unicorns.*
(Partee 1987: 119)
b. **Mary considers this woman Mary / you.*
(Coppock and Beaver 2015: 382)

The situation with the verb *be* is more complicated. As in English, German *sein* 'be' of predication takes an ⟨e,t⟩ type complement while *be* of equation takes an e-type complement. Interestingly, if *be* of equation is used, its e-type complement NP cannot be conjoined with an adjective because of the type mismatch.

(14) **Der Morgenstern ist der Abendstern und sehr hell.*
the morning star is the evening star and very bright

On the other hand, as shown in (15) and (16), predicate NPs with and without an indefinite article can be conjoined with adjectives. From this we conclude that although, in principle, indefinite NPs can be referential and can introduce discourse referents, when they are predicates in predicational copular sentences they do not.

(15) *Udo ist Schauspieler und hier sehr populär.*
Udo is actor and here very popular
'Udo is an actor and very popular here.'

(16) *Er ist entweder ein Betrüger oder krank.*
he is either a cheat or ill
'He is either a cheat or is ill.'
(Cosmas: FAZ 13/OKT)

This and other referentiality tests (e. g. by Le Bruyn 2010 for Dutch) suggest that BNPs as well as INPs are nonreferential, i. e. are of type ⟨e,t⟩. This renders inappropriate the analyses of sentences with INPs such as Hallab (2011), Mari and Martin (2008) and Matushansky and Spector (2005), in which INPs are assumed to denote an object individual with the consequence that the whole sentence is equative. Having identified the similarity between bare and indefinite predicate NPs, I now turn to their differences.

2.2 Meaning

As I already mentioned in the Introduction, BNPs have a restricted meaning: they refer to well-established social roles or statuses, such as professions,

religious denominations, nationalities, etc. Such restricted meaning is sometimes referred to as institutionalized, enriched or stereotypical (e. g. Levinson 2000). However, a corpus search for role nouns in predicational sentences reveals that they are often used with an indefinite article. In this use they often refer to inherent properties, rather than to particular well-established social aspects of individuals, thus giving the noun a nonstereotypical meaning; cf. the following occurrence of *ein Architekt* 'an architect'.

(17) *Goethe schreibt einen fließenden Stil. Schiller ist* ***ein Architekt*** *der Sprache.*
'Goethe has a fluent style. Schiller is **an architect** of the language.'
(Cosmas: U12/FEB)

Ein Architect 'an architect' in (17) does not refer to a profession but rather to the inherent properties typical for professional architects. The omission of the article would change the truth conditions. It would mean that Schiller was a professional architect, which he was not.

The context in (17) triggers the nonstereotypical noninstitutionalized interpretation of the INP. However, it would be wrong to assume that INPs exclusively have nonstereotypical meaning. One context in which INPs can get a stereotypical institutionalized meaning is the following. Imagine there are two groups of people in a workshop: professional teachers and professional linguists. People coming into the workshop room should be added to the one or the other group according to their profession. A natural question the organizer could ask every incoming man or woman, in order to add him/her to the right group, would be (18).

(18) *Sind sie ein Linguist oder ein Lehrer?*
are you a linguist or a teacher
'Are you a linguist or a teacher?'

This example shows that INPs with role nouns can still get a stereotypical interpretation in appropriate contexts, even if in other contexts they tend to get a nonstereotypical interpretation. This suggests that INPs are just underdetermined. Their bare counterparts, BNPs, however, have a fixed stereotypical meaning in every context. In the literature (Cohen 2006; de Swart et al. 2007), a meaning-form correspondence of the type we are dealing with here has been explained with a pragmatic principle, as a consequence of the Q-implicature of Horn (1984). Horn called it the division of pragmatic labor.

(19) The division of pragmatic labor
The use of a marked (relatively complex and/or prolix) expression when a corresponding unmarked (simpler, less 'effortful') alternate expression is available tends to be interpreted as conveying a marked message (one which the unmarked alternative would not or could not have conveyed). (Horn 1984: 22)

In the sense of Horn, the BNP has an unmarked form, because it is short; consequently, the INP has a marked form, because it is longer. But what is meant by unmarked meaning? For Levinson (2000) fixed stereotypical or institutionalized meaning is unmarked meaning, while nonstereotypical, vague meaning is marked. The stereotypical meaning is assumed to be unmarked or simple for two reasons: First, stereotypical situations are cognitively less complex in terms of processing, because they are based on fixed culturally established patterns. Second, expressions with stereotypical meaning are more informative while their more complex counterparts are less informative; they are vague or ambiguous, and their meaning must be specified in the context.

Another example that confirms the meaning indeterminacy of INPs is given in (20). If an evaluative adjective is added to a role noun, the bare form is excluded, and only the indefinite form is possible. This INP can have a stereotypical meaning referring to a profession or a nonstereotypical meaning referring to an inherent property.

(20) *Udo ist *(ein) guter Schauspieler.* (profession or inherent property)
Udo is a good actor
'Udo is a good actor.'

Since the bare form is excluded and only the more complex indefinite form is available, there is no tendency for a nonstereotypical interpretation because the principle of division of pragmatic labor does not apply.

To conclude, BNPs with role nouns have fixed stereotypical institutionalized meaning; the meaning of INPs is not fixed, but rather underdetermined.

2.3 Number neutrality

The literature on BNPs in different languages points to BNPs having a deficient number feature (de Swart et al. 2007, among others). The number deficiency is also attested in German. Singular BNPs can get a plural interpretation if the subject is a plurality of individuals (cf. also Berman 2009).

(21) a. *Beide Brüder wurden Ingenieur / Ingenieure.*
both brothers became.PL engineer.SG engineer.PL
'Both brothers became engineers.'
(Duden 2009, 995)
b. *Beide sind Professor.*
both is.PL professor.M.SG
'Both are professors.'

These data suggest that singular BNPs have no independent semantic specification for number but can be specified by agreement with the subject. But what about INPs? They do not show number neutrality. If the subject is plural, the INP must also be in the plural; cf. (22) with a class noun and (23) with a role noun.

(22) *Beide Brüder wurden *ein Held / Helden.*
both brothers became.PL a hero.SG heros.PL
'Both brothers became heros.'
(Duden 2009, 995)

(23) *Anna und Barbara wollen *eine gute*
Anna and Barbara want.PL a good
Ärztin / gute Ärztinnen werden.
doctor.F.SG / good doctor.F.PL become
'Anna and Barbara want to become good doctors.'
(Duden 2009: 995)

I follow previous literature in the assumption that BNPs have no independent number specification. Their number can be specified by agreement with the subject.

2.4 Restricted Modifiability

BNPs display restricted modifiability. They cannot be combined with intersective adjectives such as *blond*; INPs, however, can combine with such adjectives.

(24) a. **Udo ist blonder Tänzer.*
Udo is blond.M.SG dancer
a'. *Udo ist ein blonder Tänzer.*
Udo is a blond.M.SG dancer
'Udo is a blond dancer.'

b. **Lea ist dreißigjährige Lehrerin.*
Lea is thirty-year-old.F.SG teacher.F.SG
b'. *Lea ist eine dreißigjährige Lehrerin.*
Lea is a thirty-year-old.F.SG teacher F.SG
'Lea is a thirty-year-old teacher.'

The restricted modifiability provides an important insight into the syntax and semantics of predicate NPs and every analysis of BNPs must account for it. Table 1 summarizes the properties of BNPs and INPs.

Table 1: Properties of bare NPs and indefinite NPs.

	Bare NP	Indefinite NP
Nonreferential	Yes	Yes
Only stereotypical meaning	Yes	No
Number neutrality	Yes	No
Restricted modifiability	Yes	No

3 Modeling the distinctions between BNPs and INPs

In this section, I will introduce the analysis of BNPs and INPs by de Swart et al. (2007), Beyssade and Dobrovie-Sorin (2005) and Mari and Martin (2008) and point out the parts I will improve.

3.1 Analysis of de Swart et al. (2007)

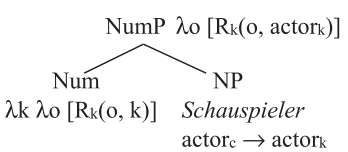
A detailed analysis of BNPs and INPs at the syntax/semantics-interface is provided by de Swart et al. (2007) for Dutch. The authors assume that nouns start life as type e expressions and fall into two subtypes: those referring to kinds and those referring to capacities.[2] Capacity is a cover term for professions, nationalities, religions, etc. Thus, capacities denote well-established roles in society. Kinds denote natural classes of individuals. Capacities can be coerced to kinds by the operator *kind*. According to this account, the role noun

2 Like most semanticists, they assume that individuals are e-type entities. The class of individuals comprises at least objects, events and kinds. Capacities would also belong to this class.

Managerin 'manager' refers to a capacity, but if it is combined with an article it is coerced into a kind. Although kinds and capacities are individuals of type e, they are sortally distinct. Kinds form natural classes; kind membership is based on inherent properties. Capacities, as suggested by Le Bruyn (2010, 2013), are culturally defined since they are established by virtue of a cultural decision.

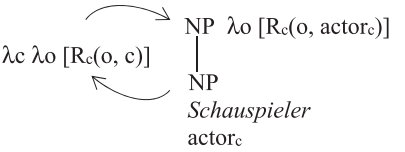
De Swart et al. assume that nouns denoting capacities project NPs, while nouns denoting kinds project at least NumPs. NumPs have a functional layer Num for number specification (Déprez 2005). The fact that BNPs are number neutral is accounted for by the assumption that no NumP level is available in their structure. This analysis applied to German is represented in (25). (Note that the variable c ranges over capacities, o over objects and k over kinds.)

(25) a. INP
Udo ist ein [*Schauspieler*]
Udo is an actor



c. U ∈ Rk(*kind*(actorc))

b. BNP
Udo ist [*Schauspieler*]
Udo is actor



d. U ∈ Rc(actorc)

Given the assumption that nouns start life as expressions of type e, it follows that they have to shift in order to be able to appear in predicate position. The authors assume that capacities and kinds can be shifted to sets of objects by the Carlsonian Realization operator R (Carlson 1977), while R_k shifts kinds and R_c the capacities. The shift of kinds to objects takes place in the functional structure above the NP in the NumP. The indefinite article is added in D above NumP. The Realization operator for kinds, R_k, takes a kind and returns the set of individual objects that instantiate this kind. The Realization operator for capacities, R_c, takes a capacity and returns the set of individuals that perform it. To integrate nominal predicates into the sentence de Swart et al. assume that predication of the form '*x* is *P*,' where *P* is some nominal projection, always involves a membership relation between the denotation of *x* and a set of objects denoted by *P*. The predication with an INP (25a) would mean (25c), while predication with a BNP in (25b) would lead to (25d).

Unlike R_k, R_c is not represented in the syntactic structure. However, qualifier expressions such as *von Beruf* 'by profession' or *von Nationalität* 'by nationality' can be treated as R_c operators. As pointed out by Cohen (2006), such expressions are compatible only with BNPs.

(26) a. *Udo ist Schauspieler* (*von Beruf*).
Udo is actor by profession
'Udo is an actor (by profession).'
b. *Udo ist ein Schauspieler* *(*von Beruf*).
Udo is an actor by profession
'Lea is an actor (by profession).'

Capacity qualifiers take a capacity as their complement and map it to a set of objects that have this capacity. The predicate *Schauspieler von Beruf* in (26a) can be represented as in (27).

(27) o is actor_c by profession → o ∈ by profession(actor_c)

At this point it should be emphasized that the observations of de Swart et al., as well as the details of their analysis, are extremely valuable, and should form the basis of any sensible theory of nominal predication. However, there are also some aspects of their analysis I want to improve. To see the advantages but also to reveal some problematic points, let us consider how their analysis accounts for the characteristics of BNPs and INPs I listed in Table 1:

Nonreferentiality: According to this analysis, both NumPs and NPs after mapping denote a set of objects and, hence, are nonreferential, as required. However, the role of the indefinite article in INPs added in D above NumP is not discussed.

Meaning: The meaning stereotypicality of BNPs is accounted for by the assumption that their nominal head refers not to the kind but rather to the capacity. The authors claim that reference to capacities is ruled out in INPs. However, as we have seen in Section 2.2., at least in German, INPs can refer to professional instances of a kind (ex. (18)/(20)). To overcome this problem the authors can just assume that kinds derived from capacity nouns by the operator *kind* are underdetermined: they comprise professional and nonprofessional instances.

Number: The fact that BNPs, as opposed to INPs, are number neutral is accounted for by the assumption that no NumP level is available in their structure. However, semantically, after the application of R_k to the kind and R_c to the capacity, both capacity predicates and kind predicates denote a set of ordinary objects. No formal difference is made. The semantic analysis should be made more precise at this point.

Modifiability: INPs project NumPs that denote sets of ordinary objects. Thus, they provide an anchor for adjectives such as *blond*. BNPs project NPs denoting

capacities of type e, but they are mapped to sets of ordinary objects by the operator R_c and hence must provide an anchor for adjectives after this mapping. Thus, modification with adjectives such as *blond*, which need an object variable as anchor, should be possible, but in reality, it is not, cf. (24a/b).

To conclude, the analysis of de Swart et al. (2007) successfully captures nonreferentiality and can in principle also account for the meaning differences between BNPs and INPs. Number neutrality and restricted modifiability of BNPs as well as the role of the indefinite article in INPs are, however, issues that should be further investigated.

3.2 Some insights from other analyses

As we have seen in the previous subsection, de Swart et al. (2007) postulate that BNPs and INPs induce the same type of predication, namely the standard set-theoretical one: BNPs and INPs denote a set of objects and the subject of the clause is assigned a set-membership. This unitary view of predication in copula sentences is questioned by Beyssade and Dobrovie-Sorin (2005) and Mari and Martin (2008).

Beyssade and Dobrovie-Sorin (2005) assume a strong correlation between the projection of the functional category of Number in the NumP and set-denotation. Since INPs are countable, they project a NumP and denote sets of objects. As opposed to INPs, BNPs are number neutral. They lack the NumP projection and denote properties as primitive objects, not sets. This difference leads to a difference in the mode of predication. The INP ascribes set-membership and induces classifying predication, while the BNP ascribes a property and induces attributive predication.

This analysis gives an explanation for number neutrality of BNPs: unlike INPs, they do not denote a set of objects and do not project a NumP. The strong correlation between the availability of the NumP and set-denotation (i. e. denotation of a set of objects) should be maintained in the new analysis. However, the analysis of Beyssade and Dobrovie-Sorin leaves us in the dark regarding the question of why BNPs have a very restricted institutionalized meaning. The assumption that BNPs denote properties of individuals instead of denoting sets gives no answer to this question.

In their paper on nominal predication in French, Mari and Martin (2008) criticize the approach of Beyssade and Dobrovie-Sorin (2005) and develop a new analysis. They argue that sentences with BNPs are predicational, whereas sentences with INPs are equatives. As shown in Section 2.1, an analysis of sentences with nonreferential INPs as equative is inappropriate and will not be considered

in this paper. However, the authors make an interesting suggestion for the analysis of BNPs. They assume that predicational sentences with bare nouns involve a hidden qualifier expression such as *by profession*. It is accommodated in subject position and shifts the subject referent to its trope. They analyze tropes informally as aspects of individuals such as profession, nationality, etc. In a predicational sentence, qualifier expressions reduce the domain of the application of the predicate denoted by the BNP to a particular trope of the subject referent. The predication with bare nouns thus amounts to predication about tropes. In (28a) the property of being a clown is ascribed to the professional trope of Jean.

(28) a. *Jean est clown.*
Jean is clown
b. λP λy P(y), where y is the professional trope of Jean

Since the predicate predicates about a trope of the individual and not about the individual as a whole, the effect of partiality emerges.

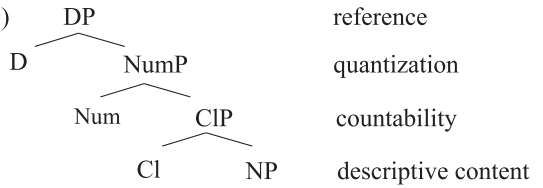
The analysis of BNPs as predicates on tropes as aspects of individuals is attractive. However, it should be worked out in more detail and combined with a syntactic analysis. The relation between nouns as heads of BNPs and nouns as heads of INPs must also be clarified.

To conclude this section, in the literature, the distinctions between BNPs and INPs were analyzed as a difference in denotation of the head noun or as a difference in the type of predication. I will show that a particular combination of these suggestions can better account for the differences between BNPs and INPs.

4 A new analysis of bare and indefinite NPs

4.1 Indefinite NPs

In my analysis I assume a straightforward correspondence between the semantics and the syntax. Operators responsible for type shifting will be represented in the syntactic structure. I assume the following basic noun structure motivated in the literature (Borer 2005; Cheng and Sybesma 1999, among others).

(29)


The NP is projected by the noun or nominal root introducing the descriptive content. The Classifier merges with the NP creating a ClP, which can then be taken as a complement by Num and D recursively. D maps the NumP into the argument via the iota operator or existential binding. However, the DP layer is absent in predicate nouns. Following Chierchia (1998), Krifka (1995) and Zamparelli (1996), I assume that (countable) sortal nouns projecting the NP denote kinds. As suggested by Kratzer (2007), languages such as English or German have a nonovert classifier and the noun forms that are usually categorized as 'singular' can be conceived as common nouns with an incorporated classifier. The classifier is responsible for making the noun countable, and for number marking. (Note that in de Swart et al.'s analysis, Num has this function.) The Number projection, originally postulated in the early 1990s (see Picallo 1991; Ritter 1991, among others), is responsible for quantization, i. e. it is the place where cardinals can merge. What is important for our analysis is that Num requires its complement to be countable, i. e. to denote a set of atomic objects.

I adopt the distinction between capacities and kinds introduced by de Swart et al. and assume that role nouns refer to capacities but can be coerced to kinds.[3] Similarly to de Swart et al., I assume that INPs project NumPs.[4] However, unlike these authors I assume that an intermediate level, the Classifier phrase ClP, is integrated between NP and NumP. Assuming that a sortal noun like *Frau* 'woman' denotes a kind, it can be mapped to a set of objects via the Carlsonian Realization operator R in the Cl head. The same can be assumed for role nouns such as *Schauspieler* 'actor' coerced to kinds. Thus, nouns that are

3 According to Le Bruyn (2010), coercion of kinds to capacities is also possible. He shows that noncapacity nouns could also appear as bare predicates, a possibility that was not foreseen by de Swart et al.'s analysis. Consider the context of a game:

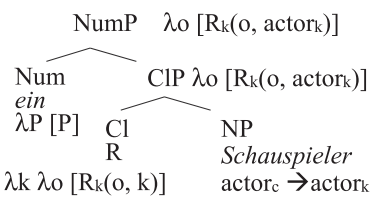
(i) <Dutch>
Jantje *is raaf.* [in the game 'Rats and Ravens']
Little_John is raven

4 NumP in de Swart et al.'s (2007) analysis, based on Déprez (2005), comprises two functions: it is responsible for the realization of a kind and for the counting of object units. These functions are distributed to two projections in the analysis assumed here: the Classifier phrase is responsible for the introduction of kind realizations, and NumP is responsible for the introduction of a counter and for quantization.

categorized as 'singular' can be conceived as common nouns with an incorporated Realization operator. Once R is applied to the kind denotation, we obtain the set of atomic objects realizing the actor kind.

I assume that the indefinite article in INPs is inserted in Num. I adopt the view suggested recently by Coppock and Beaver (2015), based on Heim and Kratzer (1998: 62) and Winter (2001: 146), that the indefinite article in English but also in German is an identity function on predicates, i. e. a predicate or a function that maps every function to itself. Thus, for us the indefinite article *ein* 'a', in combination with predicate nouns, contributes no content at all beyond its atomicity requirement. Thus, *ein* inserted in Num has no semantic contribution besides requiring the nouns with which it combines to denote a set of atomic objects. The Realization operator in the Classifier head adjusts the noun to meet the requirement of *ein*, cf. (30).

(30) INP
Udo ist [*ein Schauspieler*]
Udo is an actor



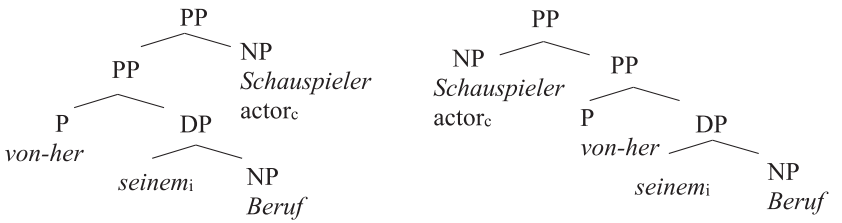
4.2 Bare NPs

Following de Swart et al. (2007), I assume that BNPs project an NP that is not headed by the Classifier or Number layer. This excludes counting for BNPs. In accordance with de Swart et al. (2007), I proceed on the assumption that nominal heads of BNPs denote capacities. However, and this is the crucial difference to de Swart et al.'s account, the capacity is not mapped to a set or a predicate over objects but rather to a set or a predicate over aspects.

I assume that this is done by qualifier expressions such as *by profession* or by a nonovert qualifier operator with the same semantics. Qualifier expressions can be assumed to always be implicitly available in sentences with BNPs as part of their semantic interpretation. Thus, the structure of a sentence like *Udo ist Schauspieler* contains the qualifier operator that can be realized as the qualifier expression *von Beruf* 'by profession'. I decompose the short form *von Beruf* into *von seinem Beruf her* with *seinem* as a possessive pronoun and *her* as a second

part of the discontinuous preposition *von-her*. Syntactically the qualifier expression is a PP. As shown in (31), it can attach to the left or to the right of the capacity-denoting NP, and thus behaves syntactically as an adjunct. However, semantically this PP is a function that takes an NP denoting a capacity as its complement, as suggested by de Swart et al. (2007).

(31)



The qualifier expression in the PP contains the noun *Beruf* 'profession'. Semantically, this noun has two functions: first, it singles out the professional aspect of some individual and, second, it identifies this professional aspect with a particular capacity. To capture these ingredients of meaning of *Beruf* 'profession', I suggest the following representation in which the variable a ranges over aspects, o over object individuals and c is a capacity:

(32) $[\![\textit{Beruf}]\!] = \lambda o\, \lambda a\, [\text{aspect\_of}(a)(o) \,\&\, \text{profession}(a) \,\&\, a = c]$

The combination of *Beruf* with the possessive pronoun *sein* 'his', represented via assignment function g(i), yields (33). I assume that the preposition *von-her* requires lambda abstraction over the capacity constant c; cf. the representation in (34).

(33) For any assignment g and index i:
$[\![\textit{sein}_i\ \textit{Beruf}]\!]^g = \lambda a\, [\text{aspect\_of}(a)(g(i)) \,\&\, \text{profession}(a) \,\&\, a = c]$

(34) $[\![\ \textit{von seinem}_i\ \textit{Beruf her}\ ]\!]^g = \lambda c\, \lambda a\, [\text{aspect\_of}(a)(g(i)) \,\&\, \text{profession}(a) \,\&\, a = c]$

According to (34) *von seinem Beruf her* singles out an aspect of the individual g(i), which is its profession, and identifies this profession with the capacity c.

As I mentioned above, qualifier expressions also play a crucial role in the analysis of de Swart et al. There they have the task of shifting a capacity to a predicate. Mari and Martin (2008) employ hidden qualifier expressions in their analysis as well. The task of such expressions in their analysis is to provide an aspect of the individual ("trope" in their analysis) to which the predicate

applies. In my analysis, qualifier expressions have both tasks: that of shifting the capacity to a predicate, and that of providing the aspect of the individual to which this predicate applies. The insertion of the capacity denotation into the representation in (34) yields (35):

(35) For any assignment g and index i:
$[\![\textit{ von seinem}_i \textit{ Beruf her Schauspieler }]\!]^g = \lambda a$ [aspect_of(a)(g(i)) & profession (a) & a = actor_c]

As a result, we obtain a predicate over aspects of the individual g(i). Recall that in de Swart et al.'s approach a BNP combined with a qualifier expression denotes a set of ordinary objects. Since INPs also denote a set of ordinary objects, we would expect a similar behavior of BNPs and INPs with respect to adjectival modification. However, unlike INPs, BNPs do not allow modification by adjectives such as *blond*. The representation in (35) accounts for the restricted modifiability of BNPs. Here, the object realized as a pronoun is represented as assignment function. There is no open object-level variable that could serve as an anchor for an adjective such as *blond*.

4.3 Social aspects

The notion of aspect plays a crucial role in my analysis of BNPs. This notion for the description of facets of individuals is not new. It has been used to refer to the fact that noun phrases sometimes do not describe the whole individual. The aspect term is used in Landman (1989) and Mari and Martin (2008). To capture the same intuition, Dahl (1975) and von Heusinger and Wespel (2007) use the term *manifestation*. Based on the literature, aspects of individuals can be characterized as follows: (i) aspects represent manifestations of individuals; (ii) an individual can be seen as the set of its aspects; (iii) an individual can realize more than one aspect at the same time. There is no uniform analysis of aspects: Landman analyzes them as properties, von Heusinger and Wespel as dependent individuals and Mari and Martin as tropes. I analyze aspects just as abstract individuals and leave the identification of the precise nature of these individuals for further research.

As an anonymous reviewer pointed out to me, aspects have a lot in common with stages as partial objects, as introduced by Carlson (1977), and the tool for the derivation of stages could possibly be used for the derivation of aspects. Carlson assumes that stages are temporally restricted parts of objects, their time slices. Individuals are connected with their temporal stages via the Realization

operator. It connects a stage to the individual it is a stage of. Assuming that R is the Realization operator, o an individual and s a stage, the formula R(s, o) is to be understood as "stage s is a time slice of the individual o." However, despite superficial similarities, stages should not be conflated with aspects. The original idea behind stages is that they are completely determined by their temporal extension. Aspects are not temporally restricted in the same way. Rather, aspects represent stable roles of individuals in the society. An individual can have more than one aspect at the same time. This is excluded for stages. Although stages cannot be equated with aspects, the way in which individuals are mapped to their aspects in my analysis is very similar to the way in which individuals are mapped to their stages in Carlson's work. The noun *Beruf* has a function similar to the Realization operator for stages: as shown in (32) it maps the object individual o to its professional aspect a. Thus, the Carlsonian Realization operator and the operator introduced by *von Beruf* are similar since both relate the subject of predication to some of its parts. In Carlsonian analysis, predicates such as *is smoking* are analyzed as stage-level predicates. The variable over stages is introduced by the predicate and is existentially closed in the VP. As shown in (36), the stage-level predicate *is smoking* takes the individual o and states that there is a stage of that individual which is engaged in smoking. I suggest that bare predication can be treated similarly. Bare predicates are aspect-level predicates. As shown in (37), the predicate *ist von seinem Beruf her Schauspieler* 'is actor by profession' takes the individual o and states that there is an aspect of that individual which is the profession of being an actor. The variable a for aspects is existentially closed at the VP level.

(36) $[\![\textit{is smoking}]\!]$: $\lambda o\ \exists s\ [R(s, o)\ \&\ drunk(s)]$

(37) $[\![$ *ist von seinem Beruf her Schauspieler* $]\!] =$
$\lambda o\ \exists a\ [aspect\_of(a)(o)\ \&\ profession(a)\ \&\ a = actor_c]$

The analysis of bare predicates suggested in this section covers bare predication with profession nouns as representative of other role nouns. As mentioned in footnote 2 in the Introduction, other nouns, such as nouns denoting medical and psychological conditions (e. g. *Diabetiker* 'diabetic'), addictions and habits (e. g. *Alkoholiker* 'alcoholic'), and character traits (e. g. *Pessimist* 'pessimist'), may occur bare in copular sentences. Such nouns specify socially relevant aspects of individuals and like names of professions belong to the group of role nouns. The only difference is that no lexical qualifier expression analogous to "by profession" exists for them. However, it is always possible to specify the relevant aspect of the individual they apply to by a description. For example, *Diabetiker*

'diabetic' specifies the aspect of an individual as her or his status with respect to sugar metabolism, and *Pessimist* identifies the aspect of the individual concerning her or his positive or negative assessment of future developments in life. Thus, all role nouns in bare predication can be analyzed as being combined with a qualifier operator and therefore can be treated uniformly.

To conclude this section, I adopt the general analysis of INPs from de Swart et al., however to specify the function of the indefinite article I assume a more complex nominal structure. The indefinite article is inserted in Num and has the function of enforcing a mapping from kinds to the set of its atomic instances, the objects. The mapping takes place in the ClP, which is the complement of the indefinite article in Num. As for BNPs I agree with de Swart et al.'s analysis that its head noun refers to a capacity. Unlike in de Swart et al's analysis, the capacity is not mapped to a set of objects but to a set of aspects. This has two advantages: First, it maintains a strong correlation between the functional category Num and Cl and a denotation of a set of atomic objects. Since no NumP/ClP is projected in the bare variant, it cannot denote such a set of objects. Second, the fact that BNPs cannot be modified by adjectives such as *blond* receives a straightforward explanation: adjectives that need an object variable of the noun as an anchor cannot be combined with BNPs because BNPs do not provide such a variable. In the next section I will show another advantage of the new account: the analysis of BNPs as predicates of aspects of individuals provides the possibility to account for the partiality of predication.

5 Integration of predicate nouns into clauses

In this section, it will be shown how INPs and BNPs are integrated into the clause. An analysis of predicational clauses at the syntax/semantics-interface is developed step by step. The detailed compositional semantics of sentences with BNPs is given in the Appendix.

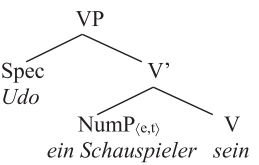
5.1 Two types of predication

I assume that INPs and BNPs correspond to two types of predication: predication over total individuals (total predication) vs. predication over aspects of individuals (partial predication). To model the two types of predication I will assume the two different structures for German as an SOV language schematically represented in (38). The underlying assumptions for the two structures are the following:

(i) The copula in both predicational sentences is a stative verb that takes complements of the ⟨e,t⟩ type. Syntactically, the category of the complement is not restricted: NumPs and PPs are both possible.
(ii) In the case of total predication, the predicate is predicated directly over the subject referent and this subject gets a theta role from its predicate V+NumP directly.
(iii) In the case of partial predication, the predicate NP is modified by the qualifier expression in the PP, which yields a predicate over aspects. Since the predicate PP predicates over aspects, it cannot be directly predicated over the subject denoting a total individual.
(iv) The matrix subject in partial predication is introduced by a type of Voice head, a functional verbal theta-head. This head assigns a theta role to the subject that requires not the whole individual but rather its social aspect to be involved in the state denoted in the complement VP. As suggested by Hole (2012, 2014), in constructions with partial predication the Voice head simultaneously induces binding, as envisaged by Kratzer (2009). To account for obligatory binding in bare predication, I assume that the Voice head introducing the subject has a binder feature that requires the subject to bind a possessor variable in its c-command domain.

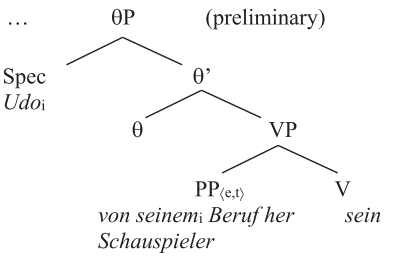
(38) a. Total predication: predication over total individuals

Udo ist ein Schauspieler.
Udo is an actor



b. Partial predication: predication over aspects of individuals

Udo ist (von seinem Beruf her) Schauspieler.
Udo is by his profession PART actor



The advantage of treating partiality of predication as mediated by a theta head mapping individuals to their aspects and further specification of aspects by the qualifier expression in the VP is that the sentence with a bare predicate is still a statement about the total individual but predication in the VP concerns only its part. In the next section, I will explain the motivation for the use of binding by theta heads for the modeling of partial predication.

5.2 Binding of social aspects

The effect of partiality of predication is captured in my analysis by assuming that not the whole individual but only its social aspect is involved in predication and that the possessor of this social aspect is obligatorily bound by the matrix subject. Partiality of predication in combination with binding are features that constructions with bare predicates share with many other constructions.

To capture the obligatory binding and partiality in bare predication, I will use some ingredients from the work of Hole (2012, 2014) on possessor binding in free dative constructions, as in (39). In such constructions, the dative argument obligatorily binds the free possessor variable in its c-command domain: in (39), the body part affected by the kicking activity must belong to the dative referent. A similar binding relationship holds in locative constructions (40), as analyzed in Geist and Hole (2016). Here, it is a spatial part of the cake, namely its surface part, which is affected by coating with egg yolk. The bound possessor variable in (39a) and (40a) can *salva veritate* be made explicit as in (39b) and (40b). Curly brackets in my representations indicate material that is PF-optional but semantically active, irrespective of whether it is pronounced. Thus, in both constructions only some part of the argument, of the dative argument in (39) or of the accusative argument in (40), is affected by the eventuality denoted by the verb.

(39) a. *Der Udo trat dem Ede gegen sein/das Schienbein.*
the Udo kicked the Ede.DAT against his/the shin
'Udo kicked Ede in the shin.' (free dative)
b. *dem Ede* θ_i [*gegen sein$_i$ Schienbein*] *treten*
the Ede.DAT against his shin kick
'kick Ede in the shin'

(40) a. *Paula hat den Kuchen mit Eigelb bestrichen.*
Paula has the cake$_{ACC}$ with egg.yolk coated
'Paula coated the cake with egg yolk.' (locative construction)
b. *den Kuchen* θ_i {*an seiner$_i$ Oberfläche*} *mit Eigelb bestreichen*
the cake.ACC on its surface with egg.yolk coat
'coat the cake with egg yolk {on its surface}'

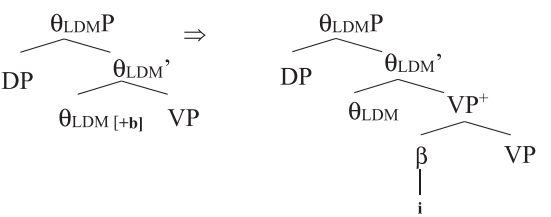
As mentioned in the Introduction (cf. ex. (6) and (7)), many argument alternations listed in Levin's seminal book (1993) display a similar pattern.

The fact that in such constructions as well as in (6) and (7), only a particular part of the argument is affected, can be modeled in a uniform manner if we assume that the argument referring to the "whole" is introduced by a theta head, requiring that only a part of the referent is involved in the VP-predication. The possessor of the affected "part" is bound by the c-commanding argument representing the "whole." This does not follow without extra assumptions. To explain them we will focus on the locative construction in (40). Geist and Hole (2016) assume that in (40) binding is mediated by the Landmark theta head with the following simplified semantics:

(41) $[\![\theta_{LDM}]\!] = \lambda o\ \lambda e\ [\textsc{landmark}(o)(e)]$
entailment: e introduced in the complement VP
holds within the neighborhood region of o

The Landmark theta head θ_{LDM} entails that the VP eventuality in the complement holds within the neighborhood regions of the Landmark DP referent. θ_{LDM} requires the object in its specifier to be interpreted as having different neighborhood regions such as outside and inside. Hole (2012, 2014) assumes that theta heads can come with a binder feature [+b]. This assumption spells out Kratzer's (2009) idea that binder indices are tied to verbal functional heads, instead of so-called antecedent DPs. The binder feature on the theta head requires the variable in the c-command domain of the theta head to be obligatorily bound by the DP in its specifier. The binder feature leads to structure expansion and an introduction of a binder index into the structure; cf. his Binder Rule in the tradition of Büring (2005).

(42) Binder Rule (Hole 2012, 2014)



The proposed mechanism encapsulates something akin to the QR requirement in the theta head. The output of (42), with the bare index c-commanding the VP, makes sure that, after Predicate Abstraction, a variable in the VP gets a value determined by the binder theta head DP. The theta head θ_{LDM} is a type of Voice head. Constructions involving this head can be seen as a particular diathesis

that like the passive, medium or reflexive diathesis determines the realization of arguments in the clause.

Now I will apply the introduced ingredients of Hole's analysis to my analysis of sentences with BNPs. Parallel to arguments introduced by the Landmark theta head, I assume that the matrix subject in sentences with BNPs is introduced by a verbal functional head called the SOCIAL INDIVIDUAL theta head (henceforth θ_{SOC}), formally represented in (43).

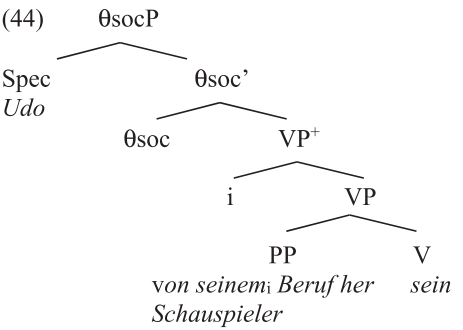
(43) $[\![\theta_{SOC}]\!]$ = λo λs [SOCIAL INDIVIDUAL(o)(s)] =
entailment: s introduced in the complement VP
holds for the social aspect of o

The thematic contribution of this theta head is an entailment requiring its complement VP to predicate about some social aspect of the individual introduced by it. θ_{SOC} requires the individual to be interpreted as comprising different social aspects, such as profession, religious denomination, nationality, etc. I assume that if individuals are assigned the theta role SOCIAL INDIVIDUAL they are mapped to the set of all their social aspects. Expressions such as *von Beruf* 'by profession' adjoined further down in the structure single out well-established professional aspects from this set.

The relation between θ_{SOC} and its complement VP I explained above is similar to that between the Landmark theta head θ_{LDM} and its complement VP. The difference is that θ_{LDM} applies in the spatial domain: it maps individuals to their neighborhood regions such as outside and inside. Neighborhoods are related to individuals via a part-whole-relationship. Our θ_{SOC}, however, applies in the domain of social aspects like professions, nationalities, etc. Social aspects are related to individuals via set inclusion. An individual is the generalized union of its socially relevant aspects.

Like θ_{LDM}, θ_{SOC} has an obligatory binding requirement. Its binder feature triggers the application of the Binder Rule (42), leading to structure expansion to VP^+ and introduction of an index underneath the theta head.

(44)



On the semantic side, this results in Predicate Abstraction over the possessor argument in the VP. Assuming the representation of the VP in (45), the application of the Binder Rule yields (46).

(45) For any assignment g and index i:
$[\![\text{ i VP }]\!]^g = \lambda s\ \exists a\ [(\text{aspect\_of}(a)(g(i)) \ \&\ \text{profession}(a) \ \&\ a = \text{actor}_c)\ (s)]$

(46) $[\![\text{ i VP} + \ ]\!]^g = [\![\text{ i VP }]\!]^{g[i \rightarrow o]} =$
$\lambda o\ \lambda s\ \exists a\ [(\text{aspect\_of}(a)(o) \ \&\ \text{profession}(a) \ \&\ a = \text{actor}_c)\ (s)]$

The SOCIAL INDIVIDUAL theta head combines with its complement VP^+ by way of (Davidsonian) Predicate Modification.

(47) $[\![\theta\text{soc'}]\!]\ \Theta\ [\![\text{ i VP }]\!]^{g[i \rightarrow o]} =$
$\lambda o\ \lambda s\ [\text{SOCIAL INDIVIDUAL}(o)(s)]\ \Theta\ \lambda o\ \lambda s\ \exists a\ [(\text{aspect\_of}(a)(o) \ \&\ \text{profession}(a) \ \&\ a = \text{actor}_c)\ (s)] = \lambda o\ \lambda s\ \exists a\ [(\text{SOCIAL INDIVIDUAL}(o)(s) \ \&$
$(\text{aspect\_of}(a)(o) \ \&\ \text{profession}(a) \ \&\ a = \text{actor}_c)\ (s)]$

Since I argue that sentences with BNPs involve a possessor variable in the PP, which is bound by the subject of the clause, I should be able to show that the variable is really bound and not assigned a value in an anaphoric relationship. An anaphoric relationship would lead to referential identity instead of binding. First, as we have already observed, the possessor variable may invariably be made explicit as a possessive pronoun *sein/ihr* 'his/her'. Second, if the matrix subject is a quantifier, it obligatorily binds the possessor variable, yielding a distributive reading.

(48) [*Jedes Kind*]$_i$ *in dieser Gruppe will Kosmonaut*
every child in this group wants cosmonaut
{*von (seinem$_i$) Beruf (her)*} *werden.*
by his profession PART become
'Every child in this group wants to become a cosmonaut (by profession).'

One last remark is in order. As already mentioned in the Introduction, the phenomenon of partiality in argument alternations is very common. There are many constructions in which partiality can be encoded in one constituent or be split into two, an external and an internal argument, as in examples (49 = 6) and (50 = 7) discussed in the Introduction and repeated below.

(49) Body-part alternation
a. *Ann touched the horse's back.*
b. *Ann touched the horse (on the back).*

(50) Argument factoring alternation
a. *He admires Ann's courage.*
b. *He admires Ann (for her courage).*

Hole's (2012, 2014) analysis suggests that in cases such as (49b) and (50b), possessor binding takes place. In his analysis, the binder argument is introduced by a theta head with a binder feature. My analysis of nominal predication in this paper shows that bare predication patterns like other constructions displaying partiality and can thus also be analyzed in terms of binder theta heads. Like such constructions, bare predication also participates in an argument alternation, cf. (51a/b) (= 9a/b).

(51) a. *Leas Beruf ist Lehrerin.*
Lea's profession is teacher.F
'Lea's profession is to teach.'
b. *Lea ist Lehrerin (von Beruf).*
Lea is teacher.F (by profession)
'Lea is a teacher by profession.'

Example (51b) can now be seen as a particular diathesis mediated by a Voice head that, like the passive, medium or reflexive diathesis, determines a particular realization of arguments in the clause. Example (51a) involves total predication. The syntactic subject refers to the professional aspect of Lea and as a whole serves as the subject of predication. In (51b) the predication is partial. The syntactic subject refers to the individual Lea. The predication, however, concerns not the individual Lea but rather her professional aspect.

6 Conclusion

In this paper, I proposed a new account of nominal predication in which I tried to capture the attractions of the previous accounts and thus to combine them. The new analysis suggests that predicational sentences with INPs differ

from sentences with BNPs in the denotation of the head of the nominal predicate and in the type of predication. These differences can be described as follows: The head of the INP is a sortal noun that refers to a kind. It projects a NumP denoting a set of object instances of that kind. INPs assign the subject individual membership in the kind. The head of the BNP belongs to the class of role nouns, which refer to a capacity. The role noun projects an NP that is modified by a qualifier expression such as *by profession*. This expression has two functions: to map the capacity to the predicate, and to apply this predicate to a social aspect of the individual in the subject position. Since this predication concerns only an aspect of the individual and not the individual as a whole, it is partial.

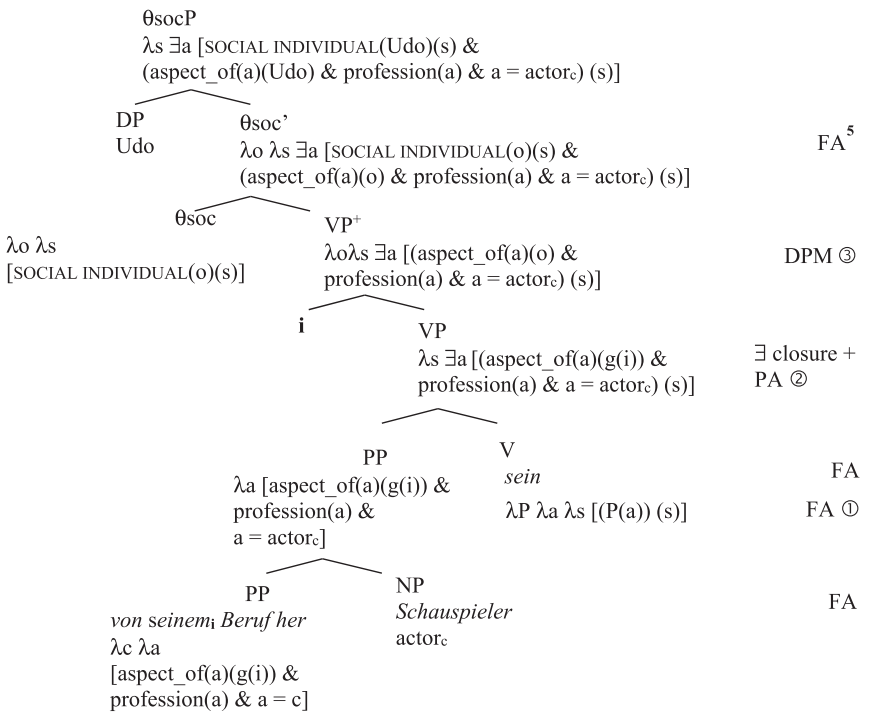
An additional advantage of the proposed analysis is that it brings bare predication into a broader context of partial predication in argument alternations. It makes it possible to apply tools that have proved effective in the domain of argument alternations to the domain of bare predication. Bare predication can now be considered as a diathetic alternation between two constructions: one in which the reference to an aspect of the individual is explicitly encoded in the subject constituent, and another in which the reference to an aspect of the individual is mediated by a theta head with a binder feature.

Acknowledgements: This research was funded by the German Science Foundation (Project B8 Alternations and Binding in the SFB 732 Incremental Specification in Context), support that I gratefully acknowledge. I would like to thank Maria Aloni, Klaus von Heusinger, Uwe Junghanns, Guido Mensching, Svetlana Petrova, Cecilia Poletto, Sarah Zobel and two anonymous reviewers for their comments. A special thank goes to Daniel Hole and Sebastian Bücking for fruitful discussions of the paper at different stages of its development.

Appendix: Predicational sentences with BNPs

(i) a. *Udo ist {von seinem Beruf her} Schauspieler.*
Udo is by his profession PART actor
'Udo is an actor (by profession).'

b. For any assignment g and number i



Comments:

① I assume that the copula *sein* 'be' belongs to the class of stative verbs such as *know*, *weigh*, *own* and *resemble*, which are distinct from state verbs like *sit*, *stand*, *lie*, *wait* and *sleep* (cf. Maienborn 2010 for the two classes of nondynamic verbs) and denote inherently generic and stable abstract states.

② The variable for aspects a is bound by existential closure. This is parallel to the way Carlson treats predication over stages of individuals: in his

5 I use the following abbreviations: DPM: Davidsonian Predicate Modification, FA: Functional Application, PA: Predicate Abstraction.

analysis, an existential quantifier over stages is introduced within the predicate.

③ To arrive at the denotation of θ_{SOC}', Davidsonian Predicate Modification is employed.

Data Sources

Cosmas (corpus of German) http://www.ids-mannheim.de/cosmas2/

[Cosmas FAZ 13/OKT]: Frankfurter Allgemeine Zeitung 08.10.2013

[Cosmas U12/FEB]: Süddeutsche Zeitung 27.02.2012

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