

The Syntax and Semantics of Genus-species Splits in German*

Dennis Ott
Harvard University

Andreea Nicolae
Harvard University

1 Introduction

Some speakers¹ of varieties of German accept topicalization constructions with an additional noun in the putative base position of the topic (Fanselow and Ćavar 2002, 99f.; Fanselow and Féry in preparation, 64ff.). Consider the following examples:

- (1) a. /FRÜCHte isst Peter meistens nur grüne ÄPF\el
fruit eats Peter mostly only green apples
'As for fruit, Peter mostly eats green apples only.'
b. Gefährliche /RAUBvögel hat Peter nur BUSS\arde gesehen
dangerous birds of prey has Peter only buzzards seen
'As for dangerous birds of prey, Peter only saw buzzards.'
c. Stu/DENten kennt Peter nur ein paar MÄ\dels
students knows Peter only a few girls
'As for students, Peter only knows a few girls (= female students).'

We will refer to the topicalized noun phrase and the one occurring in what appears to be its base position as “Genus” (henceforth, G) and “Species” (S), respectively, and to the construction as a whole as “Genus-species Split” (GSS).²

As indicated above, the typical intonational realization of GSSs is the “bridge contour,” making G a contrastive topic, marked by rising intonation, and S a focus, marked by falling intonation (see Büring 1997 for general discussion). Schematically, the structure of GSSs is thus as follows:

*For questions, comments and suggestions we are indebted to Noam Chomsky, Amy Rose Deal, Peter Jenks, Clemens Mayr, Jason Merchant, Volker Struckmeier and audiences at *ECO5 2010* (Harvard University) and *CGSW 25* (University of Tromsø).

¹Fanselow and Ćavar (2002, 99) report that out of their 45 informants, 10 found the relevant constructions fully acceptable, 17 finding them questionable. Here we will rely on the judgments of the first author, for whom the construction is fully productive.

²A subset of speakers who accept GSS prefer G to be inside a PP headed by *an* ‘of’:

- (i) An gefährlichen Raubvögeln hat Peter nur Bussarde gesehen
of dangerous birds of prey has Peter only buzzards seen

For other speakers, including the first author, there is no difference in acceptability between (i) and (1b). The properties discussed below apply equally to both variants of the construction, and we will set aside the *an*-variant in the remainder of this paper.

(2) [TOPIC GENUS] ... [FOCUS SPECIES]

Importantly, GSSs require a strict genus–species (or superset–subset) relation between topic and focus. While this is the case in (1) and (3a), neither (3b), where genus and species are interchanged, nor (3c), where topic and focus are semantically unrelated, are acceptable:

- (3) a. Raubvögel kennt Peter nur Bussarde
birds of prey knows Peter only buzzards
'As for birds of prey, Peter only knows buzzards.'
b. *Bussarde kennt Peter nur Raubvögel
buzzards knows Peter only birds of prey
c. *Raubvögel kennt Peter nur Rosen
birds of prey knows Peter only roses

The descriptive generalization is thus that in GSS the focus must denote a subset of whatever is denoted by the topic, so that both stand in a superset–subset relation. Neither (3b) nor (3c) satisfy this requirement.

It should also be pointed out that not only accusative direct objects can be split in this way; the following examples illustrate GSSs involving a dative object, an indirect dative object, and a subject, respectively:

- (4) a. Raubvögeln ähnelt eine Amsel allenfalls
birds of prey.DAT resembles a blackbird.NOM at best
Bussarden
buzzards.DAT
'As for birds of prey, at best a blackbird resembles buzzards.'
b. Büchern haben sie bisher nur zwei Romanen den Preis
books.DAT have they so far only two novels.DAT the prize.ACC
verliehen
awarded
'As for books, so far only a few novels have been awarded the prize.'
c. Raubvögel haben ihn bisher nur Bussarde
birds of prey.NOM have him.ACC so far only buzzards.NOM
angegriffen
attacked
'As for birds of prey, so far only buzzards have attacked him.'

Evidently, GSSs raise various theoretical questions, such as: What factors determine the strict genus-species requirement on topic and focus in these constructions?, Where is the base position of G?, Why can a second head noun appear in (what appears to be) that base position?, etc. It is these questions that we will address in this paper, which is structured as follows. In section 2, we first discuss some candidate approaches to GSSs; having rejected these, we move on to our own

analysis in section 3. The central thesis will be that G moves out of a symmetric predication structure comprising both G and S, this movement being driven by PF/linearization demands. Section 4 concludes.

2 Towards an Analysis

In the following subsections we will discuss three candidate theories that attempt to assimilate GSS to other known constructions. The failure of these theories will pave the way for the novel analysis to be presented in section 3.

2.1 Free Topic

The fact that there is no (obvious) gap in the clause might be taken to suggest that G is a free topic (as in English *as for*-constructions). As a first problem for this analysis, notice that G is not (and cannot be) separated by an intonational break from the rest of the clause; as noted above, G is part of the bridge contour marking contrast (G) and new information (S). By contrast, free-topic constructions are characterized by “paratactic” intonation with a salient break between the *as for*-phrase and the clause itself.

Moreover, the relation between G and S is island-sensitive, hence created by movement:³

- (5) a. *Raubvögel kennt Peter [den Mann [der Bussarde züchtet]]
birds of prey knows Peter the man who buzzards breeds
- b. *Raubvögel ist Peter weggelaufen [nachdem er Bussarde gesehen
birds of prey is Peter away run after he buzzards seen
hat]
has
- c. *Raubvögel kennt Peter nur [Bussarde und Fische]
birds of prey knows Peter only buzzards and fish

These facts strongly suggest that G originates in some VP-internal base position. By contrast, free topics are not affected by the presence of island boundaries at all:

- (6) a. Was Raubvögel angeht, ich kenne [einen Mann [der Bussarde
as for birds of prey I know a man who buzzards
züchtet]]
breeds

³It is not clear whether the case in (5c) is really a CSC violation or rather a violation of frame-setting (see section 3 below). At any rate, when both conjuncts are such that they denote species of the genus denoted by the topic, “ATB-GSSs” are fully acceptable:

- (i) Raubvögel kennt Peter nur Bussarde und Falken
birds of prey knows Peter only buzzards and falcons

- b. Was Raubvögel angeht, Peter ist mal weggelaufen [nachdem er
as for birds of prey Peter is once away run after he
einen Bussard gesehen hat]
a buzzard seen has

Furthermore, GSSs can also be derived by fronting a VP that contains G, while there is no corresponding construction involving a free topic (cf. Fanselow and Ćavar 2002, 100):

- (7) a. [_{VP} Raubvögel gekannt] hat er nur Bussarde
birds of prey known has he only buzzards
b. [_{VP} Früchte gegessen] hat Max immer nur Äpfel
fruits eaten has Max always only apples

A further contrast between G and free topics is that G must be a bare indefinite (plural or singular). Equivalent constructions where G is either definite and/or quantified are unacceptable:⁴

- (8) a. Gefährliche Raubvögel hat Peter nur drei Bussarde gesehen
dangerous birds of prey has Peter only three buzzards seen
b. *Drei Raubvögel hat Peter nur Bussarde gesehen
three birds of prey has Peter only buzzards seen
(9) a. Einen Raubvogel würde ich mir allenfalls einen Falken kaufen
a bird of prey would I me at best a falcon buy
b. *Den Raubvogel würde ich mir allenfalls {einen/den} Falken kaufen
the bird of prey would I me at best a/the falcon buy

No such constraint holds for free topics, which may be definite/quantified:

- (10) Was diese zehn Blumen hier angeht, ich mag nur die Rosen
as for these ten flowers here I like only the roses

The facts from locality and the “bareness” constraint on G constitute clear evidence against the hypothesis that G is a free topic.

2.2 Resumption

Next, we turn to the hypothesis that S is some kind of resumptive element. The most obvious problem for this hypothesis is that S is not a pronoun, contrary to

⁴The DPs topicalized in (8b) and (9b) do of course allow topicalization independently of GSSs:

- (i) a. Drei Raubvögel hat Peter gesehen
three birds of prey has Peter seen
b. Den Raubvogel würde ich mir kaufen
the bird of prey would I me buy

what one would expect given that resumptive elements in German are pronominal.⁵ Topicalized constituents, however, cannot be resumed at all:

- (11) *Raubvögel_i hat Peter nur sie_i gesehen
birds of prey has Peter only them seen

If S in GSS were a “pronoun in disguise,” we would expect the same Condition B violation in cases like (3a).

When we turn to clear cases of resumption in German, such as proleptic contexts (see Salzmann 2006), we find that such contexts do not allow for GSSs (with S in the resumptive-pronoun position):

- (12) a. Der Maler_i, von dem_i ich glaube, dass Petra *(ihn_i) mag
the painter of who I believe that Petra him likes
b. *Die Raubvögel, von denen ich glaube, dass Peter nur Bussarde
the birds of prey of which I believe that Peter only buzzards
kennt
knows
- (13) a. Von Raubvögeln weiß man, dass *(sie) Nagetiere fressen
of birds of prey knows one that they rodents eat
b. *Von Raubvögeln weiß man, dass Bussarde gefährlich sind
of birds of prey knows one that buzzards dangerous are

Moreover, an analysis of GSSs in terms of resumption would predict that GSSs can circumvent islands, contrary to fact—notice that in (12a), the resumptive pronoun is inside an island.

Finally, the meaning of GSSs is different from that of a resumptive structure. A resumptive pronoun corefers with its antecedent, whereas S provides new information. As we will show in section 3 below, in a case like (1a) S is the object of the verb, with G acting as a modifier of S (the green apples that Peter mostly eats have the property of being fruit).

2.3 Pseudopartitives and Appositives

As a final candidate theory before we turn to our own analysis, consider the hypothesis that GSSs are derived from pseudopartitive or appositive structures, with G moving out. Subextractions from pseudopartitives are *prima facie* similar to GSSs, in that a stranded noun phrase marks the base position of the topic:

⁵German does not allow epithets to act as resumptive elements:

- (i) *Hans_i bin ich sicher dass niemand Vertrauen in den Idioten_i hat
Hans am I sure that no one faith in the idiot has

- (14) Wein_i hat Peter [_{DP} zwei Flaschen *t_i*] getrunken
 wine has Peter two bottles drunk

A crucial difference, however, is that the topicalized NP can occur in its base position in pseudopartitives (15a), while it cannot do so in GSSs (16a); in fact, G and S cannot occur adjacent to each other in either order (16b), nor can they both be topicalized as a unit (16c), an option that is available with pseudopartitives (15b):

- (15) a. Peter hat [_{DP} zwei Flaschen Wein] getrunken
 Peter has two bottles wine drunk
 b. [_{DP} Zwei Flaschen Wein] hat Peter getrunken
 two bottles wine has Peter drunk
- (16) a. *Peter kennt nur Bussarde Raubvögel
 Peter knows only buzzards birds of prey
 b. *Peter kennt nur Raubvögel Bussarde
 Peter knows only birds of prey buzzards
 c. *Bussarde Raubvögel kennt Peter
 buzzards birds of prey knows Peter

These facts show that GSSs are structurally different from pseudopartitives: In GSSs, movement of S is forced; in pseudopartitives, the head noun can remain *in situ*.

Semantically, too, GSSs and pseudopartitives are different. The first noun in pseudopartitives designates a quantity or amount, acting as a measure of the things denoted by the second noun. The second noun is always a bare plural or a mass noun, but never a singular count noun (Alexiadou *et al.* 2007, 403). These generalizations do not apply to GSSs: Neither G nor S measures or counts the other, and either one can be a singular count noun. The relation between G and S is thus altogether different from the relation between the two nouns in pseudopartitives.

One might still suggest that GSSs are derived from some kind of appositive source. Syntactically, however, appositive noun phrases behave differently; in particular, appositive structures never allow for the two members to be split by topicalization, as shown in (17b) and (17c):

- (17) a. weil ich [[_{DP} den Hans] [_{DP} meinen Arbeitskollegen]] nicht mag
 because I the Hans my co-worker not like
 b. *[[_{DP} den Hans]_i] mag ich [*t_i* [_{DP} meinen Arbeitskollegen_i]] nicht
 the Hans like I my co-worker not
 c. *[[_{DP} meinen Arbeitskollegen]_i] mag ich [[_{DP} den Hans] *t_i*] nicht
 my co-worker like I the Hans not

In fact, an analysis that derives GSSs from appositive structures would also fall short of explaining why G must not be quantified or definite (recall the facts in

(8)–(9)). No such requirement holds for either member of an appositive structure (see (17a)). By contrast, the “bareness” requirement on G falls out directly on our analysis of G as a predicate of S (see section 3 below)—in which case G and S are not in an appositive relation.

2.4 Interim Summary

In the preceding subsections we have seen several central properties of GSSs that demand an explanation. It was shown that there is a movement dependency between G and S (or some adjacent position); we will further specify the nature of this movement dependency in the following section. Moreover, it was shown that G is very much like a predicate, in that it must not be definite or quantified. The relation between G and S is thus altogether different from the relation between an R-expression and a coreferring resumptive pronoun, as well as from that holding between the two nouns in pseudopartitives. Finally, we saw that GSSs are different from both pseudopartitives and appositive structures in that movement of one member (G) is possible *and* obligatory.

3 An Alternative Account

In this section we develop a novel approach to GSSs, which reconciles and rationalizes the properties uncovered in the preceding sections.

3.1 More on Movement of G and Its Properties

It was shown above that the dependency between G and S is island-sensitive, hence created by movement. This movement dependency exhibits all properties of an \overline{A} -chain: In addition to the aforementioned sensitivity to islands, we find that G can move across finite-clause boundaries, and that it reconstructs for purposes of binding and scope:

- (18) Raubvögel glaubt Peter dass Maria allenfalls Bussarde gesehen hat
birds of prey thinks Peter that Maria at best buzzards seen has
'As for birds of prey, Peter thinks that at best Maria saw buzzards.'
- (19) a. ?Einen Raubvogel haben alle Schüler nur einen Bussard gesehen
a bird of prey have all students only a buzzard seen
'As for a bird of prey, all students only saw a buzzard.' ($\forall > \exists$, $*\exists > \forall$)
b. Bücher über sich_i/*ihn_i hat Peter_i nur Romane gelesen
books about himself/him has Peter only novels read
'As for books about himself/him, Peter only read novels.'

We conclude that G is \overline{A} -moved from its VP-internal position.

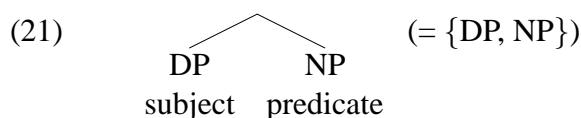
The central property of G discussed above is that it must be a bare NP. We submit that G is a nominal predicate modifying S.⁶ What this means is that in a case like (1b), the core proposition expressed is that Peter saw buzzards (= S), to which the property of being birds of prey (= G) is (correctly) ascribed.

We will see below that this characterization of the grammatical role of G relative to S has desirable consequences in ruling out illicit cases. For now we will only mention two predictions of the hypothesis that G is a predicate: Like other predicates, G should not scramble easily,⁷ and there should be no GSSs derived by *wh*-movement (since *wh*-phrases are not predicates). These predictions are both borne out:

- (20) a. ??weil er Raubvögel nur Bussarde gesehen hat
 because he birds of prey only buzzards seen has
 b. *Welche Raubvögel hat er nur Bussarde gesehen?
 what birds of prey has he only buzzards seen

3.2 Bare Predication and Symmetry-breaking Fronting

We claim that GSSs are derived from *syntactically symmetric bare-predication structures*.⁸ By this we mean a predication resulting from merger (set-formation) of a DP subject and an NP predicate:



According to Moro's (2000; 2007) theory of *Dynamic Antisymmetry*, such symmetric structures require symmetry-breaking movement in order to permit linearization. This is so because a structure like (21) defines no asymmetric c-command relation between the non-terminals involved (DP and NP), which however is required by the LCA of Kayne 1994, here conceived of as an algorithm operative only at the level of PF. Therefore, a structure like (21) is not licit at the PF-interface. What is required in order to permit linearization is movement of one of the two members out of the symmetric structure. This movement, which leaves a silent trace/copy, results in an asymmetric structure, assuming that traces can be disregarded by the

⁶See Fanselow 1988 for a similar idea, in the context of split topicalization. See section 4 for some remarks on the connection between GSSs and topic splits.

⁷What this means is that scrambling of predicates generally requires strong contrastive emphasis and is then still less natural than scrambling of arguments.

⁸We are consciously avoiding the term "small clause" here, since we do not take (21) to be propositional (in the way a CP is propositional, and in the way Moro 2000 takes such structures to be propositional). The meaning of (21) is more similar to attribution (Volker Struckmeier, p.c.): The property denoted by NP (= G) is ascribed to the entity or entities denoted by DP (= S). Notice, however, that we do not take NP to be an adjunct; both phrases are simply merged, the resulting structure being interpretable as such.

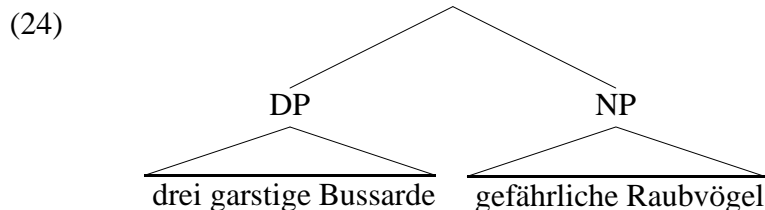
linearization algorithm:

- (22) a. [XP YP] \rightarrow crashes at PF
 b. XP ... [t_{XP} YP] \rightarrow permits linearization

In GSSs, G is an NP (predicate) while S is a DP (subject)⁹—recall that while G may not be quantified or definite, there is no such constraint on S. We claim that this make-up of NP and DP is what allows for predication to be established by a symmetric structure, without a mediating head.

To illustrate, consider the example in (23). On our analysis, G and S originate in a bare-predication structure, shown in (24), generated in argument position of V:¹⁰

- (23) Gefährliche Raubvögel hat Peter nur drei garstige Bussarde gesehen
 dangerous birds of prey has Peter only three nasty buzzards seen



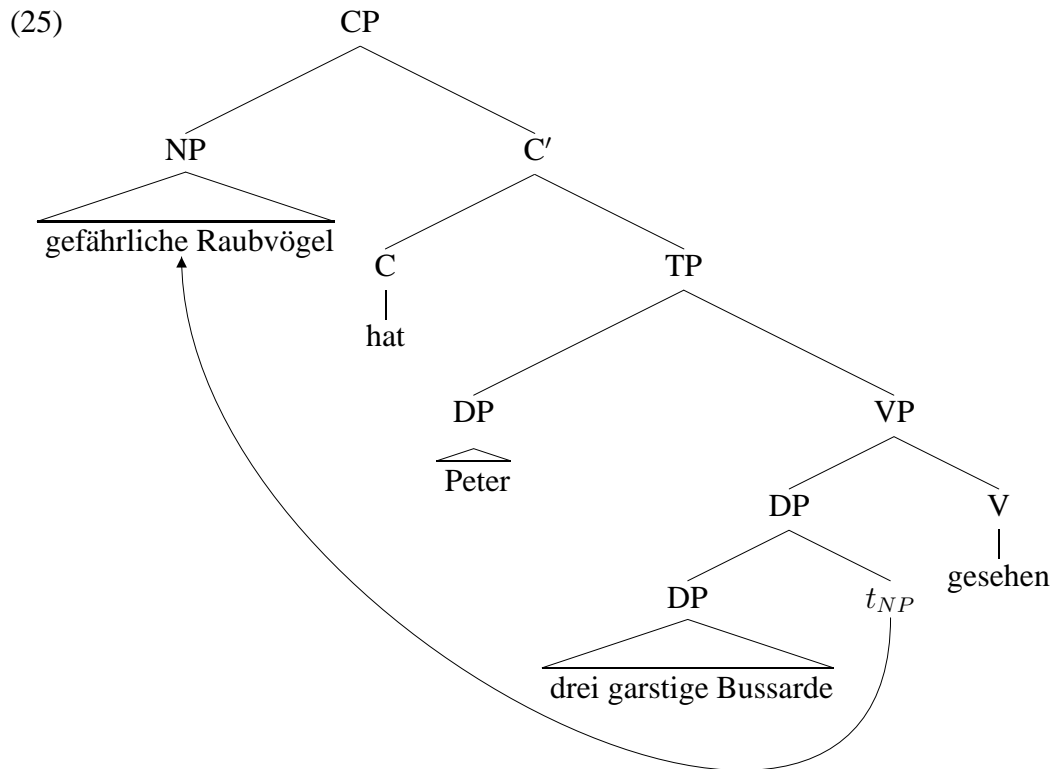
As shown above, we assume that the predication structure is label-less, since no label can be determined by minimal inspection of the merge-mates (Chomsky 2008, 2007)—a further consequence of the symmetry of the structure. In order to break this symmetry, one of the two members of the small clause has to be moved (topicalized).¹¹ Movement of the predicate (NP = G) yields an acceptable outcome; the symmetric structure is now, *after movement*, asymmetricized and labeled by the remaining DP, which is selected by V:¹²

⁹We are using “NP” and “DP” as shorthands here, setting aside much of the discussion concerning the internal structure of noun phrases. All these labels are meant to reflect is the idea that predicates lack functional structure pertaining to definiteness/quantification.

¹⁰In (24) and the trees given below we omit focus particles for simplicity. We assume, following Buring and Hartmann (2001), that focus particles adjoin to VP and other functional projections, but not directly to arguments.

¹¹Recall that scrambling of predicates leads to deviance (20a), leaving topicalization of NP as the only option (German does not have heavy-NP shift). On the constraints ruling out movement of DP, see below.

¹²This analysis is perfectly compatible with the idea that derivations proceed by phase (Chomsky 2000 *et seq.*), an issue we are setting aside here. All that changes with phases is that NP moves cyclically via the edge of *v*P, selection of DP by V occurring at the phase level upon assignment of the DP label to the now-asymmetric predication structure. See Ott 2010, in progress for details.



Notice that the bare-predication structure in (24) is a simple set formed by Merge; it itself is label- and hence category-less, and neither member of the set (DP and NP) is more deeply embedded than the other. In fact, subject and predicate are not embedded at all, since (24) is a bare set. We claim that this is what explains the absence of CED effects in GSSs. Recall from the facts in (4) above that not only direct objects, but also indirect objects and subjects allow for GSSs. Usually, extraction from these positions is ruled out by the CED¹³—but notice that subextraction (say, of PP out of DP) involves “looking into” a category. No such probing is required in order to move NP out of (24), since it is not embedded (but only a member of the bare set).¹⁴ Moreover, movement in this case is forced by antisymmetry-related PF-requirements and as such not dependent on an external probe at all. We thus correctly predict that CED effects are voided in GSSs, as shown by the data in (4).

Returning to the derivation sketched in (25), why is it that *NP* (and not *DP*) moves? For purposes of linearization and labeling, all that is required is that any one member of the subject-predicate structure move. But only topicalization of *NP*, as in (23), yields an acceptable outcome; topicalization of *DP* is always unacceptable:

¹³See Müller 1995 for the relevant facts from German. The status of the Subject Condition in this language is disputed, but we will set the issue aside here.

¹⁴We are indebted to Noam Chomsky for helpful discussion of this point.

- (26) *Drei garstige Bussarde hat Peter nur gefährliche Raubvögel gesehen
 three nasty buzzards has Peter only dangerous birds of prey seen

We propose that movement of the DP subject is indeed not ruled out syntactically, but by pragmatic conditions. Intuitively, the reason why (26)—which is the result of DP having been topicalized—is unacceptable is that the species-denoting noun acts as a topic for the genus-denoting noun. Following Jacobs (2001), we assume that topics set up a discourse “frame” for the following comment:¹⁵

- (27) *Frame-setting* (Jacobs 2001, 656)
 In ($X\ Y$), X is the *frame* for Y iff X specifies a domain of (possible) reality to which the proposition expressed by Y is restricted.

While G (*birds of prey*) in (23) acts as a proper frame-setter for the following comment involving S (*buzzards*), the topicalized S in (26) fails to do so for the following comment involving G . Simply put, going from S to G (from subset to superset) violates the requirement that the comment be about the topic.

Notice that since frame-setting is a general pragmatic constraint (see note 15), our analysis predicts that free-topic constructions corresponding in topic–comment structure to the GSSs in (23) and (26) show the same contrast; this prediction is borne out:

- (28) a. Was gefährliche Raubvögel angeht, Peter hat nur drei garstige
 as for dangerous birds of prey Peter has only three nasty
 Bussarde gesehen
 buzzards seen
 b. *Was drei garstige Bussarde angeht, Peter hat nur gefährliche
 as for three nasty buzzards Peter has only dangerous
 Raubvögel gesehen
 birds of prey seen

Our claim is that (26) is bad for the same reason (28b) is bad, namely frame-setting. This means, in turn, that no syntactic constraint needs to be invoked in order to rule out (26). More generally, while the syntax blindly moves either the DP subject (S) or the NP predicate (G) out of the original symmetric structure, the frame-setting requirement on topics rules out topicalization of DP/S —even though this option,

¹⁵ The following examples illustrate the workings of (27):

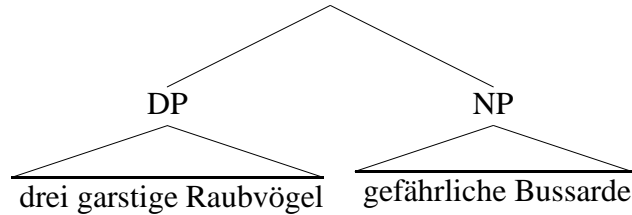
- (i) a. *As for cars, I only like roses.
 b. As for Mary’s relatives, John only talked to Bill.

In (ia), *cars* fails to set up the right frame for the following statement about roses. (ib) is fully acceptable, but notice that *Bill* is automatically understood to refer to a member of the set of Mary’s relatives—the hearer assumes that *Mary’s relatives* sets up a frame for the following comment.

too, is generated syntactically.¹⁶

A final case needs to be accounted for, however. Assume we have the same bare-predication structure as in (24), but with the head nouns of DP (S) and NP (G) interchanged, as shown below:

(29)



Since it is now the DP subject that contains the frame-setter (*birds of prey*), topicalization of DP should be possible, contrary to fact:

- (30) *Drei garstige Raubvögel hat Peter nur gefährliche Bussarde gesehen
 three nasty birds of prey has Peter only dangerous buzzards seen

What is it that rules out (30), given that it does not violate frame-setting?¹⁷ We propose that the unacceptability of such cases is due to the original predication of NP onto DP.

To see this, consider the meanings of (24) (from which the acceptable (23) is derived) and of (29) (from which the unacceptable (30) is derived). What the predication in (24) expresses is that buzzards (the subject) have the property “bird of prey”; this is true, of course: Buzzards are birds of prey. By contrast, in (29) the predication is reversed: Birds of prey are now ascribed the property “buzzard”, but it is false that birds of prey are buzzards. This, we claim, is what rules out cases like (30).¹⁸

- (31) a. [[_{DP} ... buzzard] [_{NP} ... bird of prey]] → (23)
 “buzzards have the property *bird of prey*”: true
 b. *[[_{DP} ... bird of prey] [_{NP} ... buzzard]] → (30)
 “birds of prey have the property *buzzard*”: false

As the reader can easily verify, all acceptable examples of GSSs given above are directly derived by this analysis (see also note 16), while counterparts with S

¹⁶There is further evidence that movement of S is not ruled out syntactically. Recall the examples in (7), showing that G can be contained in a fronted VP. In order to derive these cases, all that is required is movement of DP out of VP and subsequent fronting of the remnant VP (perhaps with NP incorporated into V).

¹⁷Topicalization of the DP *drei garstige Raubvögel* is, of course, acceptable *per se*, i.e. in non-GSS contexts.

¹⁸Cases like (3b) are, as it were, ruled out twice: They express a false predication (roses do not have the property of being birds of prey) and the topic fails to set up a proper frame for the comment (cf. *As for birds of prey, Peter only knows roses).

instead of G topicalized, or with the genus and species nouns interchanged, are correctly predicted to be unacceptable. Notice that our analysis does not rely on any narrow-syntactic constraints to mark deviance: The necessary constraints are semantic (predication) and pragmatic (frame-setting). Generation of G and S, as well as movement out of the symmetric predication structure apply freely, evaluated only at the interfaces. Beyond its empirical adequacy, then, the main conceptual virtue of the present analysis is that it does not place the explanatory burden on UG, but rather on grammar-external factors (Chomsky 2007; Ott 2007).

4 Conclusion

We have shown in this paper how in GSSs two semantically dependent noun phrases (G and S) are related by movement. On the analysis developed here, GSSs are derived from symmetric subject-predicate structures, which directly reflect the relation between S (subject) and G (predicate). For purposes of linearization, one of the two members of the small clause has to move; hence G is topicalized and cannot occur *in situ*.

We have shown that predication (in the underlying structure) and symmetry-breaking movement (at the CP level) are constrained not by syntactic conditions, but by semantico-pragmatic requirements: The subject must be to the predicate what S is to G, and the topic must act as a proper frame-setter for the stranded focus, barring topicalization of S.

Starting from the predication base structure, the antisymmetry requirement and these independent constraints conspire to yield the pattern in (2), repeated in (32a) and now analyzed as in (32b):

- (32) a. [_{TOPIC} GENUS] ... [_{FOCUS} SPECIES]
 b. [_{CP} [_{NP} GENUS] ... [_{VP} [[_{DP} SPECIES] *t*_{NP}] V]]

We have shown how this analysis correctly predicts the observed acceptability patterns.

An important issue that we have set aside in this paper is that GSSs are actually a special case of a larger class of constructions, typically referred to as “split topicalization” (see van Hoof 2006 for a survey). GSSs share all relevant properties with other split-topicalization constructions, the only difference being that both DP and NP have an overt head noun. Ott (2010, in progress) proposes that the analysis developed above should indeed be generalized to all split topicalization; regular cases only differ in that the stranded DP subject is elliptical (NP-ellipsis being virtually free in German). The reader is referred to Ott 2010, in progress for the details of this proposal.

References

- Alexiadou, Artemis, Liliane Haegeman, and Melita Stavrou. 2007. *Noun phrase in the generative perspective*. Mouton de Gruyter.
- Büring, Daniel. 1997. *The meaning of Topic and Focus. The 59th Street bridge accent*. London: Routledge.
- , and Katharina Hartmann. 2001. The syntax and semantics of focus-sensitive particles in German. *Natural Language and Linguistic Theory* 19.229–281.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89–155. Cambridge, MA: MIT Press.
- . 2007. Approaching UG from below. In *Interfaces + Recursion = Language? Chomsky's Minimalism and the view from syntax–semantics*, ed. by Uli Sauerland and Hans-Martin Gärtner, 1–29. Berlin/New York: Mouton de Gruyter.
- . 2008. On phases. In *Foundational issues in linguistic theory*, ed. by Robert Freidin, Carlos P. Otero, and Maria-Luisa Zubizarreta, 133–166. Cambridge, MA: MIT Press.
- Fanselow, Gisbert. 1988. Aufspaltung von NPn und das Problem der 'freien' Wortstellung. *Linguistische Berichte* 114.91–113.
- , and Damir Ćavar. 2002. Distributed deletion. In *Theoretical Approaches to Universals*, ed. by Artemis Alexiadou, volume 49 of *Linguistik Aktuell/Linguistics Today*, 65–107. Amsterdam: John Benjamins.
- , and Caroline Féry, in preparation. Prosodic and morphosyntactic aspects of discontinuous noun phrases: A comparative perspective. Ms., Universität Potsdam.
- Jacobs, Joachim. 2001. The dimensions of topic–comment. *Linguistics* 39.641–681.
- Kayne, Richard S. 1994. *The antisymmetry of syntax*, volume 25 of *Linguistic Inquiry Monographs*. Cambridge, MA: MIT Press.
- Moro, Andrea. 2000. *Dynamic Antisymmetry*, volume 38 of *Linguistic Inquiry Monographs*. Cambridge, MA: MIT Press.
- . 2007. Some notes on unstable structures. Ms., Università Vita-Salute San Raffaele and Harvard University.
- Müller, Gereon. 1995. *A-bar syntax: a study in movement types*. Mouton de Gruyter.

- Ott, Dennis. 2007. Reverse-engineering the language faculty: Origins and implications of the Minimalist Program. *Harvard Working Papers in Linguistics* 12.77–90.
- , 2010. Split-topicalization as symmetry-breaking predicate fronting. Ms., Harvard University.
- , in progress. *Split topicalization and the theory of movement*. Harvard University dissertation.
- Salzmann, Martin, 2006. *Resumptive prolepsis. A study in indirect A'-dependencies*. Universiteit Leiden dissertation.
- van Hoof, Hanneke. 2006. Split topicalization. In *The Blackwell companion to syntax*, ed. by Martin Everaert and Henk van Riemsdijk, 408–462. Oxford: Blackwell.