

WHY ALL JOHN'S FRIENDS ARE DUTCH, NOT GERMAN: ON DIFFERENCES IN WEST GERMANIC IN THE INTERACTION BETWEEN UNIVERSAL QUANTIFIERS AND GENITIVES

Robert Cirillo*

Abstract: Unlike English and Dutch, German does not allow a genitive to follow a universal quantifier:

- (i) All John's friends...
- (ii) Al Jans vrienden... (Dutch)
- (iii) *All(e) Johanns Freunde... (German)

In this article I show that this discrepancy results from two facts. Firstly, the German Saxon Genitive is a true case ending assigned in [Spec, NP] or [Spec, PossP] while in Dutch and English genitive case cannot be assigned at the N or n level (without a preposition) and the Saxon Genitive is more like a possessive adjective, initiating as the head of PossP and terminating in D. Secondly, in Germanic, D or [Spec, DP] must be overtly occupied in case of definiteness, and if the D node is already overtly occupied, and if genitive case has already been assigned, there is no motivation for moving a genitive phrase to the D level. I also show that Germanic *dative of possession* constructions (possessor doubling) can be explained within the same framework. Finally, there is a brief discussion of the potential applicability of this analysis to Scandinavian.

Keywords: universal quantifier, genitive, possessive adjective, definiteness, Germanic

1. Introduction

Unlike English and Dutch, German does not allow a genitive form to follow a universal quantifier:

- (1) a. all John's friends
- b. al Jans vrienden (Dutch)
- c. *all(e) Johanns Freunde (German)

There are also differences in the position and in the manner in which genitive case is assigned in the three languages:

- (2) a. All friends of John's
- b. *All friends John's
- c. ?All friends of John
- (3) a. *Alle vrienden van Jans
- all friends of Jan's
- b. *Alle vrienden Jans
- all friends Jan's
- c. Alle vrienden van Jan (Dutch)
- all friends of Jan
- (4) a. *Alle Freunde von Johanns
- all friends of Johann's

* University of Amsterdam, Afdeling Algemene Taalwetenschap, R. J. Cirillo@uva.nl.

- b. Alle Freunde Johanns (German)
 all friends Johann's
- c. Alle Freunde von Johann
 all friends of Johann

In this article I will demonstrate that these differences are due to the convergence of two facts. Firstly, the Saxon Genitive in German is a true genitive case ending assigned in [Spec, NP] or [Spec, PossP] while in Dutch and English genitive case cannot be assigned at the N or n level (without a preposition) and the Saxon Genitive is more like a possessive adjective, initiating as the head of a Possessive Phrase and ending up in D. Secondly, there is a requirement in the Germanic languages that the D node, that is, D or [Spec, DP], be overtly occupied in the event of definiteness, and if the D node is in fact already overtly occupied and genitive case has already been assigned there is no motivation for the movement of a genitive phrase to the D level. I will also show that *dative of possession* (possessor doubling) constructions common throughout the Germanic languages can be explained within the same framework. Examples of such constructions are as follows:

- (5) a. Hem z'n boek¹ (Non-Standard Dutch)
 him his house
- b. Däm Pitter singe Frönde (Kölsch, spoken in and around Cologne)
 the.DAT Pitter his friends
- c. Per sitt hus (Norwegian)
 Per his house
- d. Dem Mann sein Hut (German)
 the.DAT man his hat

Finally, it will be shown that the present analysis is potentially applicable to the Scandinavian languages. The organization of the article is as follows:

In section 2 I will lay out my theoretical foundations and assumptions. In section 3 I will say a few words about the Saxon Genitive and also non-Saxon genitive phrases, and about how the genitive case is assigned in the West Germanic languages. In section 4 I will discuss the D-position in the West Germanic languages if a universal quantifier is involved. In section 5 I present my analysis of the data presented at the beginning of this introduction. Section 6 covers possessive dative (possessor doubling) constructions. Section 7 is a brief look at the Scandinavian languages, and section 8 presents a summary.

¹ Den Besten (2006: 109). It is the use of a pronoun such as *hem* in the possessor position that renders this phrase non-standard. The use of a non-pronominal, such as *de jongen z'n boek* (the boy his book) or *Jan z'n boek* (Jan his book) would be highly colloquial but not ungrammatical. I have used a non-standard example here only to clearly demonstrate that the possessor is in the dative. Only pronouns are overtly marked for case in Dutch.

2. Theoretical foundations

2.1 Distinct analyses of genitive phrases and possessive adjectives

Genitive phrases and possessive adjectives in the West Germanic languages have certain characteristics in common. They have similar semantics, since both indicate possession, they have similar positioning and they indicate definiteness in prenominal position:

- (6) a. John's house...
b. His house...

Because of these commonalities one might be tempted to analyse genitives and possessive adjectives as belonging to the same syntactic category and as having the same base-position and landing site. There are, however, several compelling arguments against such a uniform analysis. One argument is that genitives and possessive adjectives are not in the same case. In examples (7a) and (7b) from German the noun *Tochter* 'daughter' is in the nominative case. Both components of the genitive phrase *ihres Vaters* 'her father's' in (7a) are in the genitive case. However, the possessive adjective *seine* 'his' in (7b) is in the nominative case because it must agree in case with the noun it modifies.

- (7) a. Sie ist ganz ihres Vaters Tochter.
she is totally her father's daughter
b. Sie ist ganz seine Tochter.
she is totally his daughter

Genitive phrases and possessive adjectives also differ in Φ -feature agreement. The possessive adjective *seine* (*his*) in (7b) is feminine singular like the noun it modifies. The genitive phrase in (7a) shows no such agreement.

Another major difference between possessive adjectives and genitive phrases is that they differ in positioning and definiteness. Observe the following German examples:

- (8) a. Johanns Freunde... (definite)
Johann's friends
b. Seine Freunde... (definite)
his friends
c. Freunde Johanns... (indefinite)
friends Johann's
d. *Freunde seine...
friends his

Possessive adjectives in German are definite and prenominal. Genitives need not be either. The genitive in (8c), for example is post-nominal and the phrase is indefinite.

Possessive adjectives are also not interchangeable with other possessive or genitive forms. The following examples from Italian and English show instances in which a possessive adjective is impossible:

- (9) a. Una mia foto di te...
 a my photo of you
 b. *Una mia foto tua...
 a my photo your
- (10) a. That book is Mary's.
 b. That book is hers.
 c. *That book is her.

Unlike genitive phrases, which are typically DPs in the genitive case, possessive adjectives show signs of being heads. In the following Bulgarian example from Zimmermann (1991) a possessive adjective has moved head-to-head and attached to a definite article:

- (11) moi-te chubavi knigi
 my the beautiful books

Also, possessive adjectives behave like heads in that they show Φ -feature agreement with all the other heads in the nominal phrase. In the following Italian example, the possessive adjective *suoi* 'his/her' shows the same inflection for masculine plural as the quantifier, the definite article, the adjective and the noun:

- (12) Tutti i suoi bei quadri...
 all the her beautiful paintings

Another difference between possessive adjectives and genitives is illustrated by the fact that in German a genitive phrase triggers strong/primary morphology on an adjective regardless of whether the adjective is marked for singular or plural number, as shown in (13a) and (13b). A possessive adjective, however, triggers strong/primary morphology if it is singular but weak/secondary morphology if it is plural, as shown in (13c) and 13d).

- (13) a. Goethes schönste/*schönsten Gedichte...
 Goethe's most beautiful poems
 b. Goethes schönstes/*schönste Gedicht...
 Goethe's most beautiful poem
 c. Sein schönstes/*schönste Gedicht...
 his most beautiful poem
 d. Seine schönsten/*schönste Gedichte...
 his most beautiful poems

And, last but not least, in German genitive phrases and possessive adjectives interact differently with universal quantifiers:

- (14) a. All(e) seine Freunde...
 all his friends
 b. *All(e) Johanns Freunde...
 all Johann's friends

Based on this evidence, I will follow authors such as den Besten (2006), Delsing (1993 and 1998), Norris (2011) and Thráinsson (2007) and treat genitive phrases as maximal projections in the specifier position of NP or nP while treating possessive adjectives as heads of a Possessive Phrase or PossP located somewhere between nP and DP.²

2.2 The Split NP Hypothesis and genitive case assignment

Patterned after the Split VP Analysis that began with Larson (1988), I assume a Split NP Analysis (nP/NP) after Abney (1987), Adger (2003), Radford (2004) and Longobardi and Silvestri (2012). The parallels between Split VP and Split NP are quite striking. For example, both involve raising (V to v and N to n) and both involve the assignment of thematic roles to one or more arguments. Under the Split VP Analysis V assigns a thematic role to objects (or to the subjects of unaccusative and passive verbs) while v assigns a thematic role to agentive or experiencer subjects. The nominal domain works in the same way. In the German example in (15), the noun *Entdeckung* 'discovery' has two arguments, an agent and a theme, which are base-generated in [Spec, nP] and [Spec, NP], respectively, just as the agent and theme/patient arguments of a transitive verb are base-generated in [Spec, vP] and [Spec, VP], respectively. And, the noun *Entdeckung* has moved from N to n just as a transitive verb moves from V to v. (The movement of the agent *Erikson* to [Spec, DP] will be discussed below.)

- (15) [DP Eriksons₂ D' [nP e₂ n' Entdeckung₁ [NP Amerikas N' e₁]]]
 Erikson's discovery America's (of America)

This example involves a deverbal noun. Even in the case of non-deverbal nouns it is widely believed that nP parallels vP. Szabolcsi (1994), for example, argues that a possessor in a phrase such as *John's house* is the subject argument (specifier) of the possessee and is assigned a possessor thematic role by the possessee in combination with the genitive ending.

² Two brief parenthetical remarks are appropriate here. Firstly, because of the adjectival nature of possessive adjectives and because of issues with the movement of nouns and NPs past them in order to derive post-nominal possessive constructions, particularly in the Scandinavian languages and Romanian, it is quite possible that PossP is located in the specifier position of an FP, like APs in analyses such as Cinque (2010). Julien (2005), for example, analyses possessive adjectives as complex heads base-generated in a phrase that initiates in [Spec, NP]. A discussion of this would be beyond the scope of this article, however I do not feel that this type of analysis is fundamentally incompatible with the one presented here. Secondly, there are those who would object to my referring to possessive adjectives as adjectives. Dobrovie-Sorin and Giurgea (2011), for example, show that possessive adjectives behave differently from other adjectives in many respects. Although their arguments are interesting, I would argue that, as shown in Sleeman (1996), different kinds of adjectives, such as classifying adjectives, attributive adjectives, denominal adjectives, adjectives of quality, ordinal adjectives, etc., behave differently from each other but they are nonetheless all adjectives. I prefer to follow Cardinaletti (1998) and treat possessive adjectives fundamentally as adjectives.

For the purposes of this article, the most important similarity between the verbal and nominal domains has to do with case. In the verbal domain, V can assign case to objects, but *v* does not assign nominative case to subjects. It is T/I that is normally associated with the assigning or valuing of nominative case. In the nominal domain, it is very much the same. As (15) illustrates, genitive case can be assigned by N to an object in [Spec, NP]. However, the subject of the noun *Entdeckung* receives case not from n but in a higher position, just as the subject of a verb receives nominative case not from *v* but from T/I. The following examples suggest that the subject of a noun moves out of nP for genitive case assignment:

- (16) a. *unerwartete Eriksons Entdeckung Amerikas
 unexpected Erikson’s discovery America’s (of America)
 b. Eriksons unerwartete Entdeckung Amerikas
 Erikson’s unexpected discovery America’s (of America)

Whether genitive case is assigned to *Erikson* in [Spec, DP] or so elsewhere will be discussed below. A genitive phrase moving from [Spec, nP] to [Spec, DP] will pass through [Spec, PossP]. It is very possible that this is where genitive case is actually assigned. The question of the exact locus of genitive case assignment is of secondary importance for this article.

2.3 Definiteness and the D-position

Proceeding from arguments in Longobardi (1994 and 2001) on differences between the Germanic and Romance languages in the significance of an empty D-node, Julien (2003 and 2005) argues that in the Germanic languages definiteness requires that the D-node be overtly occupied, that is, D or [Spec, DP]. I offer the following illustrative examples from German:³

- (17) a. [DP[-def] Ø_D Ø_{nP} n’ Freunde₁ [NP Johanns_N t₁]]
- friends Johann’s
- b. [DP[+def] Johanns₂ D’ Ø_{nP} n’ Freunde₁ [NP t₂ N’ t₁]]
- Johann’s friends
- c. [DP[+def] Ø_D die_{nP} n’ Freunde₁ [NP Johanns_N t₁]]
- the friends Johann’s

In all three examples the head noun *Freunde* has moved from N to n. The DP in (17a) is indefinite. Consequently, it is not necessary for the D-level to be overtly occupied and no additional movement takes place. The DPs in (17b) and (17c) are definite, and there must be something overt at the D-level. Two strategies are available. In (17b), the genitive

³ These examples are mine and not taken from Julien, who deals mainly with the Scandinavian languages.

form *Johanns* has moved from [Spec, NP] to [Spec, DP]. In (17c), the nP has simply merged with the definite article *die*.⁴

It is important to emphasize here that in German the genitive case can be assigned in [Spec, NP]. This is clear from the examples in (15), (16) and (17). Unlike German, English and Dutch require preposition insertion for case assignment in [Spec, NP]:

- (18) a. Friends *(of) John's
 b. Vrienden *(van) Jan
 friends of Jan

Note that it is truly the genitive case that is assigned in English, but not in Dutch:

- (19) *Vrienden van Jans
 friends of Jan's

English seems to still have the vestige of a true genitive case while Dutch does not, as seen in the fact that Dutch does not have the equivalent of the following English genitive forms:

- (20) That book is Mary's/hers/ours/theirs/yours.

There will be more on this later in the article.⁵

It is of course well-known that in English besides the Saxon Genitive with *of* as in (18a) there are also non-genitive PPs with *of* that have a possessive meaning, for example *the brother of John*. Given the semantics of the preposition *of* it is not surprising that this phenomenon would exist. An *of*-PP without a genitive case is the norm in the Romance languages (Italian *di*, French *de* etc.) and is also possible in Dutch, as seen in (18b), and in German, as seen in (4b). What is interesting is that there is a certain complementary distribution between *of*-PPs with and without the Saxon Genitive. The post-nominal Saxon Genitive is clearly associated with indefinites:

- (21) a. *He is the brother of John's.
 b. He is a brother of John's.
 c. He is the brother of John.
 d. ?/*He is a brother of John.

It would be beyond the scope of this paper to delve too deeply into this matter. The issue will be partially addressed later in the paper when I present reasons for why a genitive

⁴ One might ask if there is a third option to (17b) and (17c) in the case of definiteness, namely the movement of the head noun *Freunde* to D. I would suggest that this option is unavailable for pragmatic reasons. Movement of *Freunde* to D would result in no change in word order, and it would be impossible to distinguish a definite phrase from an indefinite one. **Overt** means **visible**, and N-to-D movement would not produce **visible** occupation of D in this kind of example.

⁵ These genitives very possibly involve an empty noun as discussed in Sleeman (1996). The point I am making here is that English still has this kind of genitive construction while Dutch does not.

form is normally prenominal in the case of definiteness. However, I will not present a complete analysis of the phenomenon illustrated in (21). It is a highly relevant topic that I will leave for future research.

2.4 Section summary

In the Germanic languages, definite DPs require something in D or in [Spec, DP]. Indefinite DPs (presumably) have a null element in the D position. German allows genitive case assignment in [Spec, NP]. Dutch and English cannot assign case at the N level without a preposition. Unlike *of*, the Dutch preposition *van* does not assign genitive case but objective or accusative case.

3. The Saxon Genitive

The Saxon Genitive pervades the entire Germanic language family. It cannot be considered to be a typical Indo-European genitive case marking because there are simply too many major differences between the Saxon Genitive and a typical genitive case. A detailed discussion of this can be found in Weerman and de Wit (1999) and de Vries (2002). The most relevant difference in the present discussion is the fact that in most Germanic languages a Saxon Genitive can be attached to an entire phrase, even if the phrase contains a relative clause:

- (22) a. My friend who lives in England's house...
 b. Teksten som følger-s begynnelse... (Norwegian)
 text-the that follows's beginning
 c. Det är mannen som bor bredvid Joachim's hund. (Swedish)
 it is man-the who lives next to Joachim's dog

Dutch is very much like English and Scandinavian. It also allows the Saxon Genitive to attach to a full DP, but if the DP contains a PP or CP complement, attaching the Saxon Genitive produces marginal results for many speakers:

- (23) a. Mijn moeders grootvaders huis...
 my mother's grandfather's house
 b. Jan en Piets huis...
 Jan and Piet's house
 c. Jan en zijn vrouws huis...
 Jan and his wife's house
 d. De mans mening...
 the man's opinion
 e. ?De man met de honds mening...
 the man with the dog' opinion

- f. ??De man die ik gezien heb in de stads zus
the man that I seen have in the town's sister
- g. *De man die ik in de stad gezien hebs zus⁶
the man that I in the town seen have's sister

The Saxon Genitive in English, Swedish and Dutch is somewhat comparable to an ending in an agglutinative language. In the following Hungarian example, none of the individual nominal elements is marked for the dative case. The dative ending is simply attached to the entire DP:

- (24) ...a három nagy kutyá-nak...
the three big dog DAT

Unlike the Saxon Genitive in languages like English, Swedish, Norwegian and Dutch, a classic genitive case ending is not simply attached to the end of a phrase but involves an agreement operation or feature sharing that affects all the heads in a nominal phrase. In the following German and Latin examples, there is a genitive phrase containing a noun, a demonstrative and an adjective, and all three elements bear the genitive case:

- (25) a. Das Leben [dieses großen Königs]
the life (of) this king great
- b. Vita [huius regis grandis]
life (of) this great king

It is quite clear that the Saxon Genitive in English, Swedish, Norwegian and Dutch is not a typical Indo-European genitive case ending, but what about the *-s* ending in German? German is the most restrictive of the languages that we have looked at, attaching *-s* only to proper nouns with no modifiers or attributes. This already suggests that the Saxon Genitive in German is a true genitive case ending, albeit different from the normal genitive seen in (25a). That the Saxon Genitive in German is different from the normal genitive is most apparent in the fact that it is always *-s*, regardless of whether the possessor is masculine, feminine or neuter:

- (26) a. Vaters Auto...
Father's car
- b. Mutters Hut...
Mother's hat
- c. Amerikas Entdeckung durch Erikson...
America's discovery by Erikson

⁶ Examples (23e), (23f) and (23g) are from an anonymous reviewer, who suggested that the reason for the total unacceptability of (23g) is the fact that Dutch is an SOV language, that is, nothing can follow the verb, including the Saxon Genitive.

There are other differences between the two types of genitive in German. For example, schwa-insertion sometimes takes place in genitive forms, such as *des Kindes* versus *des Kinds* ‘of the child’. This type of schwa-insertion never occurs with the Saxon Genitive.

The issue becomes especially interesting if one considers the question of where genitive case is assigned. If the German Saxon Genitive is truly a second genitive case, its point of assignment should be [Spec, NP], but this is called into question by the claim of Weerman and de Wit (1999) and de Vries (2002) that the German Saxon Genitive is always prenominal and never occurs low like the normal genitive:

- (27) a. Der Hut der Mutter... (non-Saxon genitive)
 the hat the.der mother
 b. Mutters Hut... (Saxon Genitive)
 mother’s hat

These authors suggest that in examples like (4) (*Freunde Johanns*) or (15) (*Entdeckung Amerikas*) the ending on the post-nominal genitive forms is not the Saxon Genitive but the normal genitive ending for masculine and neuter nouns. I will not adopt this view, but will assume that the normal genitive and the Saxon Genitive can both be assigned in [Spec, NP] in German and occur post-nominally. Sentences like the following, which are admittedly unusual and probably marginal, are certainly not impossible:

- (28) a. Wir haben Freunde Mutters eingeladen.
 we have friends Mother’s invited
 ‘We have invited friends of Mother’s.’
 b. Das sind alles Freunde Claudias.
 that are all friends Claudia’s.
 ‘Those are all friends of Claudia’s.’

The implication in de Vries (2002) is that phrases like *Freunde Mutters* and *Freunde Claudias* contain a normal (non-Saxon) genitive and are simply borrowing the Saxon Genitive ending because feminine nouns in the normal genitive case are not morphologically marked. The following example, which shows a mixture of the normal and Saxon Genitive, suggests that this might indeed be happening:⁷

- (29) das Leben Katharinas der Großen
 the life Catherine’s the Great

The noun *Katharina* is clearly in the Saxon Genitive case while *der Großen* is in the normal genitive. Nonetheless, based on the examples in (28) I will treat this as non-conclusive evidence and will assume that the German Saxon Genitive is assigned and can occur post-nominally, just like the normal genitive.⁸

⁷ See de Vries (2002: 337-338 ff).

⁸ An interesting approach that will not be pursued here is the idea that perhaps there is only one genitive case in German and that its inflection paradigm is different for proper and common nouns. If this is the case,

There have been (at least) three different approaches in the literature to the Saxon Genitive:

- s is assigned in [Spec, DP] as a genitive case ending and D is empty, as presented in Szabolcsi (1983) and Abney (1987);
- (ii) -s is in D, as in Delsing (1993, 1998), Weerman and de Wit (1999), de Vries (2002), and den Besten (2006).
- (iii) -s is in D in languages like English, Dutch and the continental Scandinavian languages but a true case ending in Icelandic and in German, as in Julien (2005).⁹ I will follow Julien (2005) for the following three reasons:
 - (i) The Saxon Genitive can be assigned at the N level without preposition insertion in German but not in Dutch and English.
 - (ii) It attaches to phrases like an agglutinative ending in Dutch and English but not in German.
 - (iii) Evidence from the study of universal quantifiers, which I will discuss in the remainder of this article, indicates that the -s is in D in Dutch and English but not in German.

My approach will be to assume that in Dutch and English -s starts in Poss like a possessive adjective and moves to D. As mentioned in footnote 2, it may well be that PossP is itself located in the specifier position of NP or a functional phrase.

4. The D-position in genitive constructions with universal quantifiers

Before presenting my own analysis, I need to discuss the nature of D when a genitive phrase occurs in combination with a universal quantifier.

German has a rich inflectional system that requires that prenominal modifiers show Φ -feature and case agreement with their head noun. However, unlike other modifiers, a universal quantifier need not be inflected for Φ -features and case as long as there is something overt in D, such as a definite article, a demonstrative or a possessive adjective:

- (30)
- a. Alle Hunde...
all dogs
 - b. *All Hunde...
all dogs
 - c. All die Hunde...
all the dogs
 - d. All diese Hunde...
all these dogs
 - e. All ihre Hunde...
all her dogs

example (29) is immediately explained. An open issue is the question of why genitives of common nouns nearly always follow the noun they modify while the genitives of proper nouns nearly always precede it.

⁹ Julien (2005) deals with the Scandinavian languages and analyses -s as being in D in the continental Scandinavian languages but a genitive case ending in Icelandic. In a personal communication she informed me that she agreed that the -s in German should be analysed the same as in Icelandic.

In (30a) there is no overt element in D, so the quantifier must bear the [-e] ending. This is confirmed by the ungrammaticality of (30b). In (30c), (30d) and (30e) D is overtly occupied and there is no inflection on the quantifier. If inflection is added to the quantifier when D is overtly occupied, downgrading or ungrammaticality is the result. Observe the following examples, which could be either in the nominative or the accusative case and mean *all the children*:

- (31) a. all die Kinder (definite article)
 b. all -e Kinder (inflection on the quantifier, no definite article)
 c. *all Kinder (no inflection on the quantifier, nothing in D)
 d. ?/*alle die Kinder (inflection on the quantifier plus the definite article)

Many speakers accept example (31d), but many consider it to be ungrammatical. Even speakers who accept it generally prefer (31a) and (31b).

As already mentioned, the examples in (31) are in the nominative or accusative case. The data remain interesting if the dative and genitive cases are examined. The following examples mean *He has helped all the children* and the verb for *help* ‘helfen’ takes the dative:

- (32) a. Er hat all den Kindern geholfen. (article, but no inflection on the he has
 he has all the children helped quantifier)
 b. Er hat all-en Kindern geholfen. (dative ending on the quantifier, no
 article)
 c. ?/*Er hat all-en den Kindern geholfen. (quantifier and article in the
 dative)

And, if we look at the genitive case we also see that co-occurrence of the inflection on *alle* and the definite article produces marginal results. The following examples mean *The parents of all the children* and the phrase meaning *all the children* is in the genitive:

- (33) a. Die Eltern all der Kinder...(definite article, no inflection on the quantifier)
 the parents all the children
 b. Die Eltern all-er Kinder... (genitive ending on the quantifier, no article)
 c. ?/*Die Eltern all-er der Kinder... (quantifier and article in the genitive
 case)

Incidentally, the examples in (31) to (33) would produce similar results if the definite article were replaced with a demonstrative or a possessive adjective, but it must be noted that grammaticality judgements differ greatly.

There are at least two issues that emerge from these data. First of all, they have ramifications for the claim in Julien (2003), discussed in section 2.3 above, that definiteness requires overt occupation of D or [Spec, DP]. Since in the examples (31b), (32b) and (33b) there is nothing overt in D or [Spec, DP], we must conclude that the universal quantifier that dominates DP compensates for the lack of an overt element in D or [Spec, DP]. This is very plausible, because it is presumably a definiteness feature

borne by a DP that creates the need for overt occupation of D or [Spec, DP], and since the universal quantifier selects definite DPs it must bear some kind of definiteness feature. Since it is adjacent to DP, there is no reason why it cannot check the definiteness feature on the DP. Another possibility, which will be proposed below, is that the inflection on *alle* is itself a D-element that has attached to the quantifier.¹⁰

The second issue is the question of why inflection on the quantifier is redundant and causes downgrading for many speakers if D is occupied. One might perhaps propose that it has something to do with the fact that the quantifier is not really in DP but in the higher nominal projection QP and is therefore not subject to the same inflectional requirements as elements in DP. As long as the item occupying D is inflected, that is enough, and any inflection on the quantifier is superfluous and causes downgrading. The problem is that it is very difficult to defend a claim like this because there is no independent evidence for it, especially since in a German DP all heads are obligatorily inflected despite redundancy. Another explanation that comes to mind is the possibility that the inflection on the quantifier in (31b), (32b) and (33b) is simply a definite article that has been phonologically reduced and attached to the quantifier. In other words, (31b), (32b) and (33b) are the same as (31a), (32a) and (33a), except that the definite article has been reduced and moved up to Q to attach to the quantifier. The definite articles in (31c), (31c) and (33c) would thus be the spell-out of traces or lower copies, and this could be what causes the downgrading. The problem with this idea is that it does not explain where the inflection on a quantifier comes from if something other than the definite article occupies D. Consider the following phrases:

- (34) a. ?Alle diese Bücher...
 all these books
 b. ?Alle meine Bücher...
 all my books

These examples are a bit downgraded for some speakers but are certainly possible. One would not want to claim that the *-e* on the quantifier in these examples is a reduced definite article, since definite articles do not co-occur with demonstratives or possessive adjectives. One would also not want to say that the *-e* in (34) is a reduced demonstrative in (34a) and a reduced possessive adjective in (34b), since these two categories do not lend themselves to reduction, given that they bear more semantic weight than a definite article and are bi-syllabic. However, notwithstanding the issue posed by the less than optimal phrases in (34), I would argue that there is some plausibility to the idea that the inflection on the quantifier in examples (31) to (33) is a determiner or D element of some kind and that the ungrammaticality of the “doubling” effect in (31c), (32c) and (33c) is evidence of this. There is indeed additional evidence not only in German but also in Dutch that the inflection on the quantifier is a D element, which I will go into shortly.

¹⁰ I clearly follow Giusti (1990) and assume that the universal quantifier is the head of a QP and selects a definite DP. If one assumed that the universal quantifier was in [Spec, DP], the requirement that the D-node be occupied in case of definiteness would also be satisfied.

First I want to offer an explanation for how one would derive the sentences in (34) if the *-e* on *alle* is a D-element.

I believe that the very best explanation for the sentences in (34) is that the *-e* on *alle* and the other D-element – the demonstrative in (34a) and the possessive adjective in (34b) – are *both* in D, and this unusual combination is what causes the downgrading of the phrases for many speakers. There is very good evidence that D can be occupied by more than one element in German. Consider examples such as the following, which are well-known to Germanicists:

- (35) a. diese meine guten Freunde...
 these my good friends
 b. dieses mein großes Glück...
 this my great fortune

One way to analyse these sentences would be to say that the possessive adjective has not moved to D, which is occupied by a demonstrative. I reject this analysis for very good empirical reasons. In (35a), for example, if the possessive adjective *meine* had not moved to D and were still in its adjectival position, it would have to be inflected with a weak/secondary ending and one would get the ungrammatical **diese meinen guten Freunde*. Example (35b) is even more interesting. If the demonstrative were the sole occupier of D, there would have to be a weak/secondary ending on both the possessive adjective and the adjective *groß*, producing the ungrammatical **dieses meine große Glück*. If one posits a compound formed by movement of the possessive adjective to D and having it right-adjoin to the demonstrative, the inflection in both sentences in (35) is readily explained.

One might say that in the sentences in (35) the possessive adjective occupies D and the demonstrative is an independent DP that is simply in apposition to the DP headed by the possessive adjective. This explanation will not work. Take (35b) as an example. If this phrase consisted of two appositive DPs, there would be a slight pause between them, which there is not, and the demonstrative *dieses* would take on the pronominal form *dies*. The best explanation for (34) and (35) is the double-occupation of D.

I will now present additional evidence that the *-e* on *alle* is a D-element in German and Dutch. We begin with German, in which the inflection on the quantifier and the plural definite article have the same morphological effect on adjectives that follow them, triggering the weak *-n* ending:

- (36) a. All die guten Menschen... (full article)
 all the good people
 b. All-e guten Menschen (inflection on quantifier)
 c. ?/*All-e die guten Menschen (doubling)

If there is nothing overt in D in a plural context, there is no weak/secondary morphology. This is seen in the following example, in which there is nothing overt in D and the adjective bears a strong/primary ending:

- (37) Kluge/*Klugen Menschen haben mit Syntax nichts zu tun.
clever people have with syntax nothing to do

Another way of saying this is that the combination of definiteness plus an occupied D position means weak/secondary inflection in a plural context:¹¹

- (38) Seine besten Freunde...
his best friends

These examples demonstrate the D-like characteristics of the inflection on the quantifier. Genitive phrases in German do not have this quality. In the case of a prenominal Saxon or non-Saxon genitive, both of which signify definiteness, there is probably nothing in D, otherwise there would be weak morphology on the adjectives in the following examples:

- (39) a. Marias schönste/*schönsten Gemälde...
Maria's most beautiful paintings...
b. Des Königs treuste/*treusten Diener...
the king's most faithful servants

Example (39a) contains a Saxon genitive, example (39b) a non-Saxon genitive.

Based on the data just presented, I will assume that the *-e* ending on *alle* in German initiates in D and moves to Q to attach to the quantifier while prenominal genitive endings, Saxon and non-Saxon, are not in D but in [Spec, DP], along with the noun that they are attached to.

I will now demonstrate that in Dutch the *-e* ending on *alle* also originates in D, but the Saxon Genitive ending is in D, not [Spec, DP]. Let's begin with the following data:

- (40) a. Al de goede mannen (definite article, no inflection on the quantifier)
all the good men
b. All-e goede mannen (inflection on quantifier)
c. *Alle de (goede) mannen (doubling)
d. *Al (goede) mannen (nothing in D, no inflection on the quantifier)

Dutch does not have as rich a nominal inflectional system as German, but it has certainly not lost its nominal inflectional system, and it is practically identical to German in the way it handles the inflection of the universal quantifier. Both languages require either inflection of the quantifier or an element in D. As seen in (40c), Dutch is even stricter than German on the co-occurrence of the definite article and the inflection on *alle*. That

¹¹ I say "in a plural context" because things are different in a singular context. A singular definite article, like a plural definite article, generates weak/secondary morphology on an adjective, as in *das große/*großes Haus* 'the big house' and *die großen Häuser* 'the big houses'. However, a singular masculine or neuter possessive adjective, unlike its plural counterpart, generates strong/primary morphology on an adjective: *mein großes/*große Haus* 'my big house'. This is undoubtedly due to the fact that the masculine and neuter singular possessive adjectives bear no inflection in the nominative case, and one strong ending is required in the derivation.

is, whereas (40c) produces marginal results in German for many speakers it is consistently ungrammatical in Dutch. The ungrammaticality of this “doubling” implies that the *-e* ending on *alle* is in D in Dutch, just as it is in German. And the following two examples provide evidence that the Saxon Genitive ending is in D in Dutch:

- (41) a. Al Jans vrienden...
 all John’s friends
 b. *Alle Jans vrienden...

Example (40d) shows that something needs to be in D in a definite phrase involving a universal quantifier. (41a) is grammatical because the Saxon Genitive ending is in D, which means that inflection of the quantifier is unnecessary. I am proposing that (41b) may be ungrammatical because there are two elements competing for the D position: the *-s* and the trace/lower copy of the element that has become the inflection on *alle*.

One last issue needs to be addressed before we can move on to the next section, namely, the question of why the following phrases (which mean *all friends*) are ungrammatical:

- (42) a. *All Freunde... (German)
 b. *Al vrienden. .. (Dutch)

The answer to this question is not completely clear, but German and Dutch, unlike English, are both inflectional languages in the nominal domain, and some type of marking is necessary. This is why the examples in (42) are not possible. In the case of the universal quantifier, which is outside DP, for some reason its need for inflection is eliminated by the plural inflection on a determiner, and this is what is not clear.¹²

To quickly summarize this section, the inflection on the universal quantifier in both Dutch and German is a D-element. The Saxon Genitive ending is in D in Dutch but not in German, where it is in [Spec, DP].

5. Analysis

My analysis has actually already been presented between the lines, but I will now state it clearly. Remember that the aim of this article is to explain the following discrepancy:

- (43) a. all John’s friends
 b. al Jans vrienden (Dutch)
 c. *all(e) Johans Freunde (German)

¹² An anonymous reviewer raised the following question: If (42b) is ungrammatical because Dutch requires inflection in the nominal domain, why is the phrase *al mijn vrienden* (*all my friends*), in which there is no inflection on the quantifier or the possessive adjective, grammatical? My response: No inflection is needed on the quantifier because, as already mentioned, the possessive adjective *mijn* occupies D. No inflection is visible on the possessive adjective because possessive adjectives, unlike other adjectives, are never inflected.

Let's begin with the base-structure of the German sentence in the (c) example, in which the inflection on the quantifier *alle* is glossed as a definite article:

- (44) [QP Q' all [DP D' -e [nP n' Freunde₁ [NP Johanns N' t₁]]]]
 all the friends Johann's

As has already been implied in the above discussion, there are two reasons why a possessor might move to the D level:

- (45) a. Definiteness requires that either D, [Spec, DP] or Q be overtly occupied.
 b. The possessor must be assigned case.

In the German example in (43c), neither of these two reasons is present. Q is occupied by the quantifier and its inflection, which I claim is a D element, and the possessor has already been assigned genitive case in [Spec, NP]. Example (43c) is ungrammatical because there is no motivation for the movement of the genitive phrase to the D-level.

Before discussing Dutch and English, I would like to quickly make a side-comment on genitives and floating quantifiers in German. Note the following sentences:

- (46) a. *All(e) Johanns Freunde sind dumm.
 all Johann's friends are dumb
 b. Johanns Freunde sind alle dumm.
 Johann's friends are all dumb

Example (46a) is ungrammatical but it becomes grammatical if the quantifier is floated, as seen in (46b). To some readers this might seem to be evidence against the Stranding Analysis of floating quantifiers initiated by Sportiche (1988) and Giusti (1990). However, it is actually evidence in favour of the present analysis and the Stranding Analysis. In (46a) there is no motivation for the movement of the genitive phrase. Case was already assigned in [Spec, NP] and Q is occupied by the inflected quantifier. In (46b), however, the stranding of the quantifier leaves nothing overt in Q, D or [Spec, DP]. Since this is a definite DP, movement of the genitive to [Spec, DP] is necessary.

In Dutch, both reasons in (45) for why a possessor might move to the D level are potentially present. Let's begin with a base structure like the following:

- (47) [QP Q' al [DP D' [nP n' vrienden₁ [NP Jan N' t₁]]]]
 all friends Jan

In this base-structure, there is nothing in D (and no inflection on the quantifier) and the possessor *Jan* has not been assigned case, since case assignment is not possible in [Spec, NP] in Dutch. There are two strategies available for this base-structure:

- (48) a. [QP Q' al [DP D' -le [nP n' vrienden₁ [NP van Jan N' t₁]]]]
 b. [QP Q' al [DP D' -s₂ [PossP Poss' t₂ [nP n' vrienden₁ [NP Jan N' t₁]]]]

In the (48a) strategy, case is assigned by insertion of the preposition *van* and nP merges with the inflection on the quantifier, which I have argued is a D element. The result is *alle vrienden van Jan*. (nP could also have merged with a normal definite article, producing *al de vrienden van Jan*.) In the (48b) strategy, case is not assigned in [Spec, NP] and nP merges with the Saxon Genitive, which moves from Poss to D. The possessor *Jan* will also move up to [Spec, DP] via [Spec, PossP] for case assignment. Movement will also be motivated by the need for the clitic Saxon Genitive to attach to the noun that it is co-indexed with.

English, which is considerably less inflectionally strong than Dutch, has no inflection on a quantifier. Consider the following base-structure, in which *friends* has moved from N to n:

- (49) $[_{QP} Q' \text{ all } [_{DP} D' [_{nP} n' \text{ friends}_1 [_{NP} \text{ John } N' t_1]]]]]$

The following strategies are available:

- (50) a. $[_{QP} Q' \text{ all } [_{DP} D' (\text{the}) [_{nP} n' \text{ friends}_1 [_{NP} \text{ of John's } N' t_1]]]]]$
 b. $[_{QP} Q' \text{ all } [_{DP} D' -S_2 [_{PossP} \text{ Poss}' t_2 [_{nP} n' \text{ friends}_1 [_{NP} \text{ John } N' t_1]]]]]$

In the (50a) strategy genitive case is assigned to the possessor by preposition insertion. The nP can merge with the definite article *the* but this is not necessary if the DP merges with a universal quantifier, since, as argued above, the quantifier satisfies the requirement that the D-node be overtly occupied (since English is non-inflectional in the nominal domain there is no requirement for inflection of the quantifier). The other strategy, in (50b), is to forgo preposition insertion and to merge nP with the Saxon Genitive in Poss. The possessor will move to [Spec, PossP] to combine with the Saxon Genitive and will then move to the D-level.

Note that the Saxon Genitive in Dutch and English is a kind of hybrid – not a real case but able to function as a case, satisfying the need to assign case to possessors (like an agglutinative ending). This is not terribly surprising given the widely accepted hypothesis that the Saxon Genitive began as a genitive ending and has evolved into a sort of clitic determiner.

Note also that I am claiming here that English, unlike Dutch, still has a genitive that can be assigned by preposition insertion in [Spec, NP] (see footnote 5). This is evidenced by the existence of phrases like the following, which are not found in Dutch:

- (51) A friend of John's/mine/thine/yours/his/hers/ours/theirs...

The fact that two of these forms, *mine* and *thine*, do not end in *-s* suggests that in the case of the possessive pronouns we are not dealing with a Saxon Genitive.

The gist of this section, then, is that the discrepancy in (43) is due to the following facts:

- (i) The Saxon Genitive is a true case ending in German but more like a possessive adjective in Dutch and English.

- (ii) The genitive case, including the Saxon Genitive, is assigned low in German but not in Dutch and English, which necessitates movement of a possessor in Dutch and English to [Spec, PossP] and [Spec, DP] if a preposition is not inserted.
- (iii) Movement of a possessor to [Spec, DP] is only necessary if in a definite phrase there is nothing overt in D, [Spec, DP] or Q. If there is something overtly occupying D, movement cannot take place.

6. Dative of possession/possessor doubling constructions

As shown in section 1, dative of possession constructions, often referred to as possessor doubling, are found throughout the Germanic language family. The most famous example is the following sentence from German:

- (52) Der Dativ ist dem Genitiv sein Tod.
 the dative is the genitive its death
 'The dative is the genitive's death.'

What is amusing about this sentence is that the word *Genitiv* is in the dative case instead of the genitive case, which adds insult to injury to the threatened genitive case. In this section I would like to look at possessive dative constructions that involve a universal quantifier. Observe the following two examples from Dutch and Kölsch, respectively, in which the possessor is in the dative case:

- (53) a. Ik heb al Piet z'n vrienden uitgenodigd. (Dutch)
 I have all Piet his friends invited
 b. Isch han all däm Pitter sing Frönde enjelade. (Kölsch)
 I have all the Peter his friends invited

Concentrating on (53b), we would start with the following base-structure, which would also work for (53a):

- (54) [QP Q' all [DP D' sing₂ [PossP Poss' t₂ [nP n' Frönde₁ [NP d- Pitter N' t₁]]]]]
 all his friends the Pitter

In this phrase the noun *Frönde* has moved from N to n and the possessive adjective *singe* from Poss to D. The possessor is base-generated in [Spec, NP] just like a possessor in a genitive phrase. The immediate question that arises is why a dative possessor like the one in (53b) can move to a position immediately after a universal quantifier while a genitive possessor would not be able to. The explanation follows:

The possessive dative in German occurs either in regional languages or in a more informal register of the standard language in which one could easily argue that there is no genitive case. There is also no case assignment in [Spec, NP]. In (53), there is something in D, the possessive adjective, but the possessor has not been assigned case. It must move through [Spec, PossP] for case and movement to [Spec, DP] will follow. This is a very

plausible explanation for why a dative possessor may follow a universal quantifier while a genitive possessor cannot. That is, in more colloquial or regional registers, case assignment is not possible at the n/N level, just as in Dutch and English.

There is one open question regarding the sentences in (53), namely, the question of whether the dative possessor can move above the universal quantifier. Interestingly, it is not possible in Dutch but possible in Kölsch:

- (55) a. *Ik heb Piet al z'n vrienden uitgenodigd.
 I have Piet all his friends invited
 b. ?Isch han däm Pitter all sing Frönde enjelade.
 I have the Pitter all his friends invited

This shows that in Kölsch the dative possessor can move to a position higher than [Spec, DP], such as [Spec, QP] or perhaps to a topicalisation position inside the nominal domain. Why this is not possible in Dutch will be left for future research, however I strongly suspect that it has to do with case marking. The only real difference between Dutch and Kölsch in this construction is that there is no overt marking for dative in Dutch but there is in Kölsch.

7. A look to the north

It appears that what separates German from Dutch and English also separates Icelandic from the continental Scandinavian languages:

- (56) a. Allir vinir Jóns... (Icelandic)
 all friends John's
 b. ?Allir Jóns vinir...
 all John's friends

Contrast these Icelandic phrases with a continental Scandinavian language like Swedish:

- (57) Alla Johans vänner ...
 all Johan's friends

Icelandic has more inflection than its continental sisters, just as German has considerably more inflection than Dutch and English, and there are several other ways in which the differences between Icelandic and the continental Scandinavian languages run parallel to the differences between German and the other West Germanic languages. Unlike the continental Scandinavian languages, Icelandic assigns genitive case at the N level, cannot attach *-s* to a whole phrase, and, like non-colloquial Standard German, has no possessive dative construction. The present analysis thus seems potentially applicable across the Germanic language family. I say “potentially” because there are some differences between West Germanic and Scandinavian that could require modifications to the model presented here. For one thing, not all Icelandic speakers find sentences like (56b)

problematic. Archaic, yes, but not ungrammatical. Secondly, it is well known that not only genitives but also possessive adjectives in Icelandic normally occur post-nominally. If they occur preminally they are in a contrastive focus position. Norwegian and regional varieties of Swedish also allow both pre- and post-nominal possessive adjectives, with prenominal position again corresponding to a focus position. This is one of the reasons why Julien (2003, 2005) base-generates possessive adjectives as the head of a phrase in [Spec, NP]. Since nouns move obligatorily from N to n in Scandinavian, possessive adjectives are fundamentally post-nominal. A possessive adjective becomes prenominal by moving to [Spec, DP].

Another difference between West Germanic and Scandinavian, illustrated in data in Delsing (1998) and Julien (2005), is that in Scandinavian there are examples of possessive dative constructions comparable to the West Germanic ones shown in (5) except that they occur post-nominally, which means that certain varieties of Scandinavian can assign dative case in [Spec, NP] without preposition insertion. Still another difference is that the inflection on the universal quantifier in Scandinavian (*all-a* in Swedish, *all-e* in Danish and Norwegian) can probably not be analysed as a D element attached to the quantifier like their Dutch and German equivalents. An extension of my analysis to Scandinavian would therefore be an interesting and important area for further research.

8. Conclusions

The principal aim of this article has been to explain why German, unlike Dutch and English, does not allow a genitive phrase to follow a universal quantifier. This difference in the West Germanic language family has been explained on the basis of the following arguments:

- (i) In German, the Saxon Genitive is a case ending assigned in [Spec, NP], while in Dutch and English it is more like a possessive adjective that originates in Poss and moves to D.
- (ii) The *-e* ending on *alle* is a D-element in German and Dutch.
- (iii) Possessors, which originate in [Spec, NP] or [Spec, nP], will move via [Spec, PossP] to [Spec, DP] if they need case or if the phrase is definite and there is no overt element at the D or Q level. Otherwise, movement will not take place.

The dative of possession can be explained within the same theoretical framework. Additional research in Scandinavian would shed important light on the present analysis.

References

- Abney, S. P. 1987. The English Noun Phrase in Its Sentential Aspect. PhD dissertation, MIT. Distributed by *MIT Working Papers in Linguistics*, Cambridge, MA.
- Adger, D. 2003. *Core Syntax, a Minimalist Approach*. Oxford: Oxford University Press.
- den Besten, H. 2006. The origins of the Afrikaans pre-nominal possessive system(s). In L. L. Thornburg and J. M. Fuller (eds.), *Studies in Contact Linguistics: Essays in Honor of Glenn G. Gilbert*, 103-124. New York: Peter Lang.

- Cardinaletti, A. 1998. On the deficient/strong position in possessive systems. In A. Alexiadou and C. Wilder (eds.), *Possessors, Predicates and Movement in the Determiner Phrase*, 17-53. Amsterdam/Philadelphia: John Benjamins.
- Cinque, G. 2010. *The Syntax of Adjectives: A Comparative Study*. Cambridge, MA: MIT Press.
- Delsing, L. 1993. *The Internal Structure of Noun Phrases in the Scandinavian Languages – A Comparative Study*. Lund: Department of Scandinavian Languages, University of Lund.
- Delsing, L. 1998. Possession in Germanic. In A. Alexiadou and C. Wilder (eds.), *Possessors, Predicates and Movement in the Determiner Phrase*, 87-108. Amsterdam/Philadelphia: John Benjamins.
- Dobrovie-Sorin, C. and Giurgea, I. 2011. Pronominal possessors and Feature Uniqueness. *Language* 87: 127-157.
- Giusti, G. 1990. Floating quantifiers, scrambling and configurationality. *Linguistic Inquiry* 21: 633-641.
- Julien, M. 2003. Double definiteness in Scandinavian. In A. Dahl, K. Bentzen, and P. Svenonius (eds.), *Proceedings of the 19th Scandinavian Conference of Linguistics Nordlyd* 31: 230-244.
- Julien, M. 2005. *Nominal Phrases from a Scandinavian Perspective*. Amsterdam/Philadelphia: John Benjamins.
- Larson, R. 1988. On the Double Object Construction. *Linguistic Inquiry* 19: 335-391.
- Longobardi, G. 1994. Reference and proper names: A theory of N-movement in syntax and Logical Form. *Linguistic Inquiry* 25: 609-665.
- Longobardi, G. 1996. The syntax of N-raising: A minimalist theory. In *OTS (Onderzoeksinstituut voor Taal en Spraak) Working Papers*: 1-56.
- Longobardi, G. 2001. How comparative is semantics? A unified parametric theory of bare nouns and proper names. *Natural Language Semantics* 9: 335-369.
- Longobardi, G. and Silvestri, G. 2012. The structure of noun phrases: Some insights on Case, empty categories and poverty of the stimulus. In S. Luraghi and C. Parodi (eds.), *The Bloomsbury Companion to Syntax, Continuum Companion Series*, 88-117. London, New York: Bloomsbury Academic.
- Norris, M. 2011. Extraposition and Definiteness Effects in Icelandic DPs. In N. LaCara, A. Thompson, and M. A. Tucker (eds.), *Morphology at Santa Cruz: Papers in Honor of Jorge Hankamer*, 97-121. Santa Cruz: Linguistics Research Center, University of California Santa Cruz.
- Radford, A. 2004. *English Syntax: An Introduction*. Cambridge: Cambridge University Press.
- Sleeman, P. 1996. *Licensing Empty Nouns in French*. The Hague: Holland Academic Graphics.
- Sportiche, D. 1988. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19: 425-449.
- Szabolcsi, A. 1983. The possessor that ran away from home. *The Linguistic Review* 3: 89-102.
- Szabolcsi, A. 1994. The noun phrase. In F. Kiefer and K. É. Kiss (eds.), *The Syntactic Structure of Hungarian, Syntax and Semantics* 27, 179-231. San Diego: Academic Press.
- Thráinsson, H. 2007. *The Syntax of Icelandic*. New York: Cambridge University Press
- de Vries, M. 2002. The Syntax of Relativization. PhD dissertation, Landelijke Onderzoekschool Taalwetenschap, Utrecht.
- Weerman, F. and P. de Wit. 1999. The decline of the genitive in Dutch. *Linguistics* 37: 1155-1192.
- Zimmermann, I. R. 1991. The subject in the noun phrase: Its syntax and semantics. In I. R. Zimmermann (ed.), *Syntax und Semantik der Substantivgruppe*, 33-68. Berlin: Akademie Verlag.