The Syntactic Structure of Grammaticalized Partitives (Pseudo-partitives)

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1 Introduction

This paper discusses the synchronic and diachronic syntactic properties of pseudo-partitives – see (2). I assume that the first noun of such structures (i.e. the measure element, e.g. 'cup' or 'box') is base generated in a functional position above the NP, labelled M(easure)P(hrase). Certain differences between partitives and pseudo-partitives are shown to result from the process of syntactic grammaticalization. I will follow the model proposed by Roberts and Roussou (1999), according to which grammaticalization involves reanalysis of lexical material as functional material, which results in structural simplification.

2 Partitives vs. Pseudo-partitives

Bi-nominal constructions exemplified in (1-2) are often referred to as "partitives," but many researchers further differentiate between proper partitives (1) and pseudo-partitives (2) (see, e.g., Selkirk 1977, Jackendoff 1977, Deevy 1999, Koptjevaskaja-Tamm 2001, Stickney 2004).

(1) a. a bottle of this vodka
(1) b. a glass of my favorite juice
(1) c. a pile of Caesar's toys
(2) a. a bottle of vodka
(2) b. a glass of juice
(2) c. a pile of toys

Koptjevskaja-Tamm 2001 defines pseudo-partitives as expressions referring to an amount/quantity of some (indefinite) substance rather than to a part/subset of a (definite) superset, as is the case for proper partitives. She

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lists various semantic classes of nouns which may act as the first element of the pseudo-partitive construction (N1)[1]:

- Conventionalized measures: a litre of milk, a kilo of apples
- Abstract quantity nouns: a large amount of apples
- Containers: a cup of tea, a pail of apples
- Fractions/parts: a slice of bread, a quarter of an hour, a large section of students
- Quantums (for mass nouns): a lump of sugar, a drop of milk
- Collections (for count nouns): a group of students, a herd of sheep
- Forms (both for mass and count nouns): a pile of sand/bricks, a bouquet of roses

Distinctions between partitives and pseudo-partitives are observed in many natural languages. However, as shown below, the syntactic realizations are not always the same (examples (3-12) are taken from Koptjevskaja-Tamm 2001 and Stickney 2004).

In languages such as English or Romance, N2 in pseudo-partitive structures is not preceded by a determiner:

Spanish:

(3) a. un kilo de aquellas manzanas (partitive)
a kilogram of those apples
'a kilogram of those apples'

(3) b. un kilo de manzanas (pseudo-partitive)
a kilogram of apples
'a kilogram of apples'

French:

(4) a. un verre de cette biére (partitive)
a glass of this beer
'a glass of this beer'

(4) b. un verre de biére (pseudo-partitive)
a glass of beer
'a glass of beer'

In languages such as Swedish, Dutch, German or Greek, N2 in pseudopartitive expressions can be preceded neither by a determiner nor by a preposition (in regular partitive structures these two elements appear freely):

[1] Following Stavrou 2003, I will refer to the two nominals involved in such structures as N1 and N2.

Swedish:

(5) a. en kopp av detta goda te (partitive)
a cup of this good tea
'a cup of this good tea'

(5) b. en kopp te (pseudo-partitive)
a cup tea
'a cup of tea'

Dutch:

(6) a. een doos van uw heerlijke koekjes (partitive)
a box of your delicious cookies
'a box of your delicious cookies'

(6) b. een doos koekjes (pseudo-partitive)
a box cookies
'a box of cookies'

German:

(7) a. eine Dose von diesen leckeren Kekse (partitive)
a box of those delicious cookies
'a box of those delicious cookies'

(7) b. eine Dose Kekse (pseudo-partitive)
a box cookies
'a box of cookies'

Greek:

(8) a. mia kouta me ta vivlia (partitive)
a box with the books
'a box of the books'

(8) b. mia kouta vivlia (pseudo-partitive)
a box books
'a box of books'

In languages such as Finnish, Armenian and Russian, the case marking of N2 in the pseudo-partitive construction is different from the case marking of N2 in the partitive construction:

Russian:

(9) a. čaška ètogo vkusnogo čaja (partitive)
cup:NOM this:GEN good:GEN tea:GEN
'a cup of this good tea'

(9) b. čaška čaju (pseudo-partitive)
cup:NOM tea:PART
'a cup of tea'

Finnish:

(10) a. pala tästä hyvästä kakusta (partitive)
bit:NOM this:ELAT good:ELAT cake:ELAT
'a bit of this good cake'

(10) b. säkki perunoita (pseudo-partitive)
sack:NOM potatoes:PART
'a sack of potatoes'

Armenian:

(11) a. mi gavath ayd hamov surtchic (partitive)
one cup:NOM that good coffee:ABL
'one cup of that good coffee'

(11) b. mi gavath surtch (pseudo-partitive)
one cup:NOM coffee:NOM
'one cup of coffee'

In languages such as Lithuanian, the partitive and pseudo-partitive constructions differ in terms of word order:

Lithuanian:

(12) a. pieno stiklinė (partitive)
milk:GEN glass:NOM
'a glass of milk'

(12) b. stiklinė pieno (pseudo-partitive)
glass:NOM milk:GEN
'a (full) glass of milk' (amount)

It should be noted that genitival phrases normally precede nouns in Lithuanian:

(13) Adomo draugas nupirko dežę obuolių.
Adam:GEN friend:NOM bought crate:ACC apples:GEN
'Adam's friend bought a crate of apples.'

The above example illustrates the contrast between a typical genitival structure (*Adomo draugas* 'Adam's friend') and a pseudo-partitive expression (*dežę obuolių* 'a crate of apples').

3 Pseudo-partitives as Functional Heads

Two approaches have been proposed in the literature regarding the syntactic structure of pseudo-partitives. The crucial difference between them comes down to the following pair of statements:

- N1 is a specifier of N2 (Selkirk 1977, Deevy 1999)
- N1 takes N2 as a complement (Löbel 1989, Stavrou 2003, Stickney 2004)

In the present paper, I will follow Stickney 2004, who convincingly argues that partitives and pseudopartitives have different structures: the pseudo-partitive N1 occupies a functional head labeled M(easure), whereas the partitive N1 is a lexical noun. The two structures in question are illustrated below:

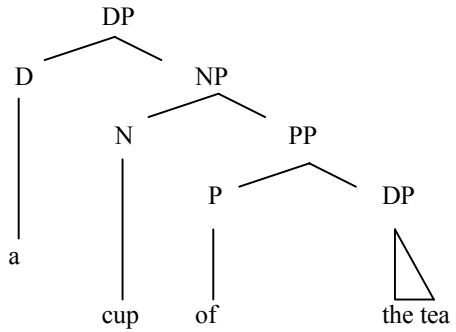

Figure 1: Stickney's 2004 partitive structure

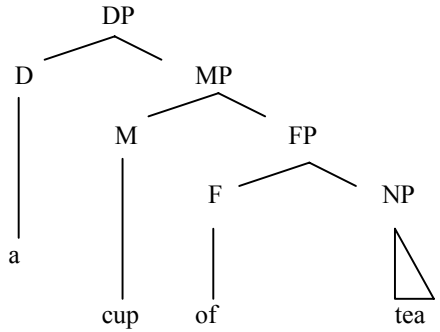

Figure 2: Stickney's 2004 pseudo-partitive structure

According to Stickney 2004, the element *of* in pseudo-partitive expressions is not a preposition (instead, it heads a functional phrase above the NP).

From the point of view of the present analysis, the most important distinction between the two structures presented above is that the partitive construction (Figure 1) is "bi-phrasal", i.e. it consists of two separate extended nominal projections; on the other hand, the pseudo-partitive structure (Figure 2) is a single DP, with N2 being the lexical nucleus of this phrase. It should be noted that the quantifying reading of the pseudo-partitive N1 is derived from its syntactic position: Stickney 2004 argues that whatever occupies M must be interpreted as a measure (thus, this interpretation is not a lexical property of a particular element).

As pointed out by Stickney 2004, the M head has to be distinguished from the functional head which hosts numerals and quantifiers:

(14) three cups of coffee
(15) many groups of men

The above examples show that numerals/quantifiers and measure nouns do not compete for the same syntactic slot (numerals/quantifiers clearly occupy a higher functional head). The same has been noted for pseudo-partitive structures in other languages (see, e.g., Becker's 2004 analysis of Russian).

4 Pseudo-partitives as Grammaticalized Partitives

Koptjevskaja-Tamm 2001 shows that, cross-linguistically, pseudo-partitives often derive from true partitives (which, in turn, are related to separative constructions such as '(cut) a slice from the cake'). She considers this development an example of grammaticalization:

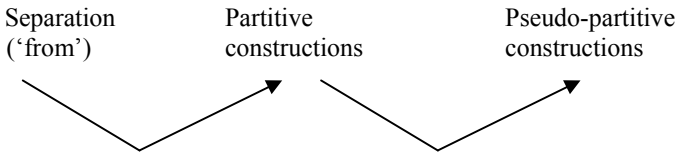

Figure 3: Diachronic development of pseudo-partitives
(Koptjevskaja-Tamm 2001)

This process is triggered by the fact that pseudo-partitive elements are nouns from a historical point of view, but they are used in functions which are not typical for nouns (i.e. they are not used referentially). During the transition period, some expressions may be ambiguous – interpreted as either partitive or pseudo-partitive. However, if the process of grammaticalization is

completed, partitives and pseudo-partitives become distinct syntactic constructions.

In this paper, I adopt the scenario of grammaticalization outlined by Koptjevskaja-Tamm 2001 and propose a syntactic analysis of the evolution of pseudo-partitives from regular partitive phrases. As pointed out in the previous section, I follow Stickney 2004 in assuming that a regular partitive construction consists of two separate DPs, which means that both the measure element (e.g. 'cup') and the measured element (e.g. 'coffee') are regular nouns, projecting full functional structures. This is illustrated below with the structure corresponding to the Dutch example in (6a):

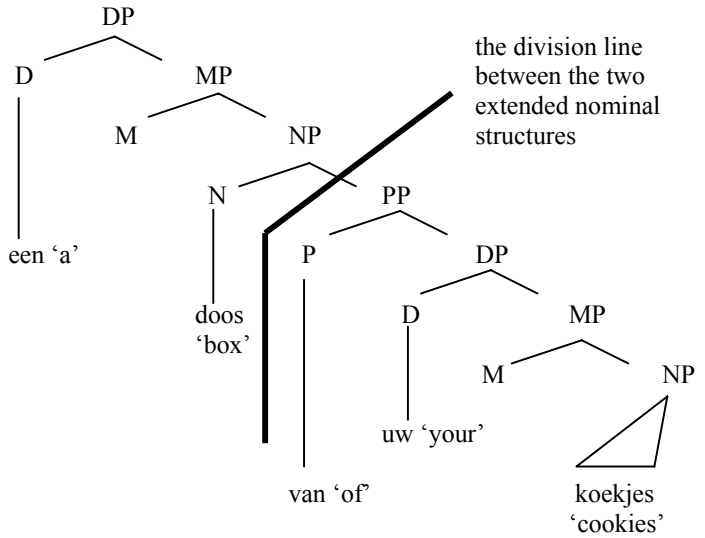

Figure 4: Bi-phrasal model of partitive structures (two DPs)

If Koptjevskaja-Tamm's 2001 scenario of diachronic change is right, the above construction should be the source of the pseudo-partitive structure. How could we explain this syntactic reanalysis?

According to Roberts and Roussou (1999), the phenomenon that has traditionally been described as grammaticalization involves categorial reanalysis of lexical material as functional material. The development of the Greek future marker *tha* from the verb *thélo* 'want' is one of many examples of this process. As shown in Figure 5, Roberts and Roussou (1999) view the status of *tha* as resulting from a syntactic reanalysis, which involves

substantial structural simplification (a bi-clausal construction is replaced with a mono-clausal one).

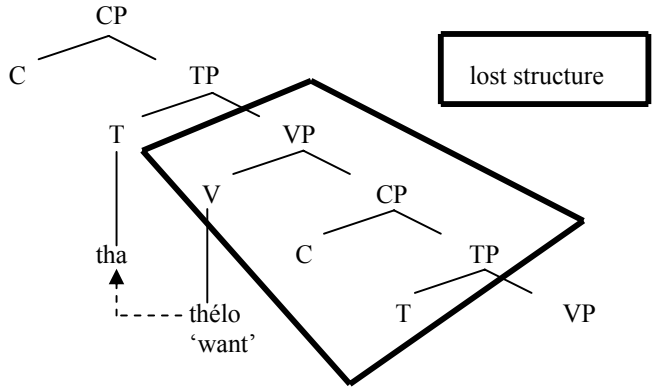

Figure 5: Loss of structure resulting from the Greek *thélo* to *tha* change

Rutkowski (2002b) shows that this model is also applicable to nominal expressions (in particular, to the historical development of Polish numerals):

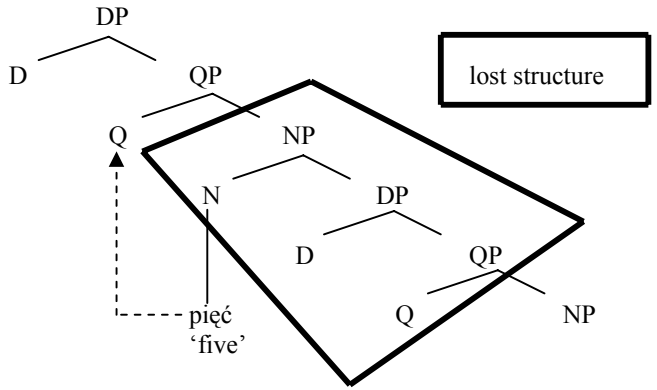

Figure 6: Loss of structure in Polish numeral structures

There is both syntactic and morphological evidence that Old Polish numerals were regular nouns, whereas their Modern Polish equivalents should be analyzed as occupying a functional syntactic position projected above the

quantified NP (see Rutkowski 2002b and 2006a, for a discussion of the historical syntax of Polish numerals, and Rutkowski 2002a, for a synchronic analysis). Under the assumptions of Roberts and Roussou's 1999 model, such diachronic developments are not surprising because they lead to structural simplification.

If the parameter-setting device of the language faculty is assumed to prefer simpler structures over more complex ones (as proposed by Roberts and Roussou 1999), the historical scenario proposed by Koptjevskaja-Tamm 2001 finds a principled explanation. N1 occupies the functional position M in pseudo-partitives because this structure is simpler than the bi-phrasal partitive one. In other words, there is no need to merge a very complex expression to convey the notion of partitivity/measurement/quantification. From a diachronic point of view, the partitive measure noun must have been reanalyzed as a functional element whenever it was not interpreted referentially. The reanalysis in question is illustrated below (cf. (6b)):

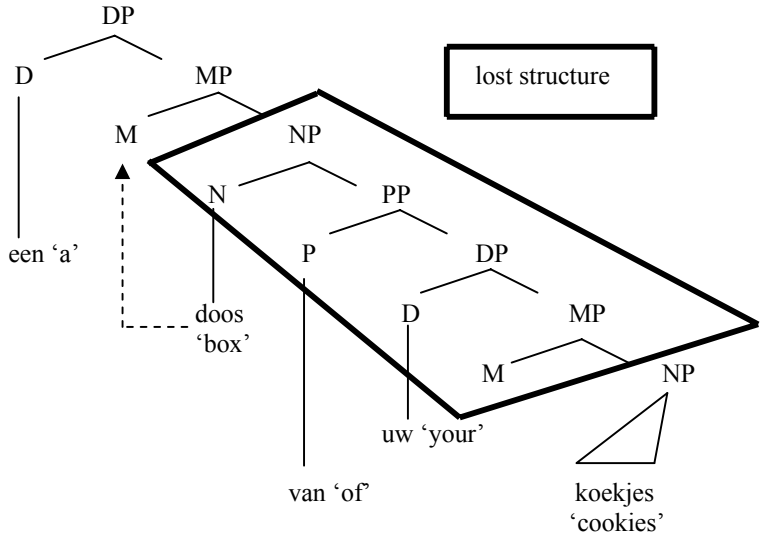

Figure 7: Loss of structure in pseudo-partitives

The similarity between the processes illustrated in Figure 6 and Figure 7 is not surprising. Koptjevskaja-Tamm 2001 notes that the historical development of pseudo-partitives is often parallel to the development of numerals.

Due to the N-to-M reanalysis the structural material in the region between M and the measured N becomes redundant. This explains why languages such as Dutch do not allow the pseudo-partitive N2 to be preceded by a determiner or preposition. At first glance, this analysis seems to be inapplicable to English because what looks like a preposition (i.e. the element *of*) is not ungrammatical in English pseudo-partitives. However, as shown above, Stickney 2004 argues that the pseudo-partitive *of* is actually a functional head. Her proposal finds confirmation in the diachronic model outlined in the present paper: the element *of* "fits" the pseudo-partitive structure only if it is a grammaticalized (i.e. functional) preposition.

I propose that the historical analysis illustrated in Figure 7 can also account for other differences between partitives and pseudo-partitives – for instance, the partitive case assignment in Russian (see (9a-b)). It should be noted that, although *–a* is the usual masculine genitival ending in Russian, a class of semantically non-count nouns (usually with the meaning of substance, collectivity or abstraction – see Valkova 1999) allows for an alternate (more colloquial) form, ending in *–u*. Since in bi-nominal structures the *–u* form always expresses the partitive/measure relation, and not, for instance, possession or attributive features (cf., e.g., Becker 2004), it is often referred to as the partitive case.[2]

Valkova (1999) shows that the diachronic development of the *–u* partitive marker was very complex: in some periods the *–u* and *–a* inflections were used almost interchangeably, in others, there was a clear functional distinction between the two forms. What seems to be clear is that the *–u* ending derives from a genitival form of an old Proto-Slavic declensional type. After the merger of so-called *–o* and *–u* declensions, the *–u* ending started to be associated with nouns referring to substance or collectivity (i.e. nouns which did not refer to individual objects). This shows that the partitive interpretation of *–u* is a diachronic development that took place in Old Russian.

Franks and Dziwirek 1993 account for the possibility of using *–u* as a partitive marker by assuming that Russian partitive expressions are associated with a functional head (labeled Q in their analysis), which assigns the partitive case.[3] Also Becker 2004 attempts to explain the *–u* case marking as related to the presence of a functional projection (FP), which is able to check the partitive case feature. In both these analyses, the partitive case

[2] When masculine nouns which do not have a distinct partitive form are used in partitive contexts, they take the regular genitival *–a* form.

[3] Franks and Dziwirek 1993 focus on structures with phonologically null partitive elements, however, their analysis is readily applicable to the expressions discussed in the present paper.

marking is in a way independent from the syntactic requirements of the container/measure noun (N1). Instead, it is the syntactic configuration (the functional phrase projected above the measured noun) that is responsible for the occurrence of the *–u* form. I will follow this line of reasoning, however, I will adapt it to the model proposed by Stickney 2004 by referring to the functional head which hosts the measure element as MP. I propose that the partitive case checking is possible only if the MP layer is active syntactically. Similarly to Franks and Dziwirek 1993 and Becker 2004, I assume that what distinguishes the functional head M (Q/F) from a regular nominal position is that it can check not only genitive but also partitive:

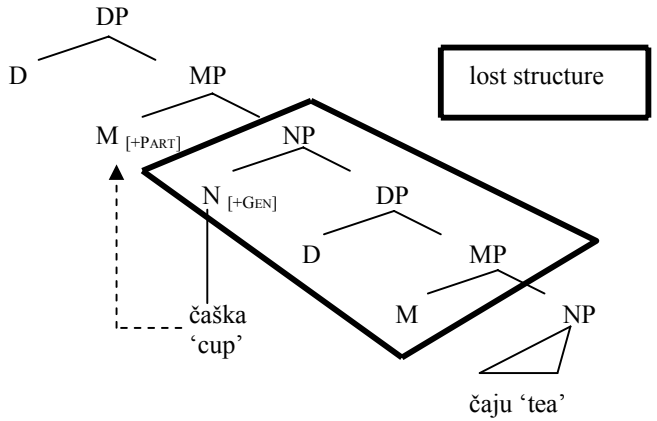

Figure 8: Diachronic development of partitive structures in Russian

The diachronic analysis presented in this paper can also be used to account for the partitive/pseudo-partitive distinction in Lithuanian (cf. (12-13)). On the basis of examples such as (16a-c), Rutkowski 2006b argues that typical Lithuanian genitives are base-generated in what Longobardi 2001 labels GenO, i.e. a syntactic position located immediately above the main NP.

(16) a. juodas Reginos automobilis
black Regina-GEN car
'Regina's black car'

(16) b. ?*Reginos juodas automobilis
Regina-GEN black car

(16) c. *juodas automobilis Reginos
black car Regina-GEN

A simplified version of Longobardi's 2001 model is shown below:

(17) [GenS [AP [GenO [NP]]]][4]

Regular partitives (see example (12a)) must also be located in GenO because, similarly to other genitives (such as *Reginos* 'Regina-GEN' in (16a)), they always precede the measure/container noun (which means that N2 precedes N1). However, in the pseudo-partitive construction, N1 is followed by N2. This can be explained if we assume that the pseudo-partitive N1 is raised to a functional position above GenO:

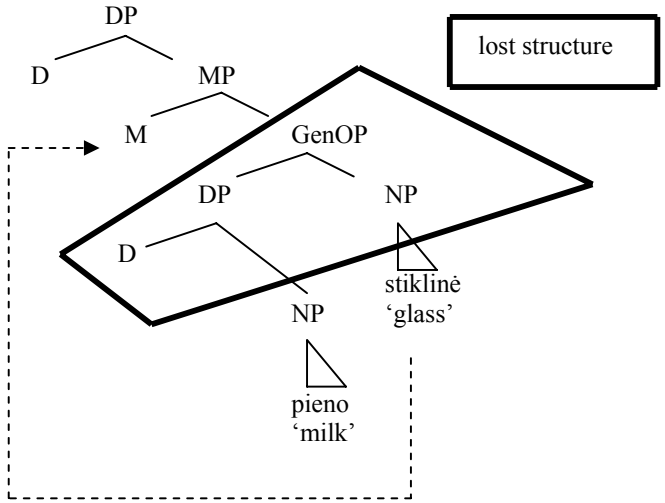

Figure 9: The diachronic change in Lithuanian partitives

As shown above, if the Lithuanian pseudo-partitive N1 is reanalyzed as a functional element, it can no longer appear in postposition with respect to N2. This analysis patterns with all the other cases of syntactic reanalysis which have been presented in this paper: when a partitive becomes a pseudo-partitive, its syntactic status changes.

It should be noted that the aim of this paper is to account for the syntactic, and not semantic, distinction between partitives and pseudo-

[4] Longobardi 2001 distinguishes two genitival positions: GenO and GenS, however, Rutkowski 2006b argues that the latter is occupied in Lithuanian only when there are two distinct non-partitive genitival phrases in one nominal expression.

partitives. Only measure nouns can be reanalyzed as functional elements (due to their non-referentiality). However, such a reanalysis is by no means necessary. The "pseudo-partitive" interpretation is not dependent on the pseudo-partitive (grammaticalized) syntactic structure. This analysis predicts that there are languages in which semantic pseudo-partitives appear as syntactic partitives (i.e. separate DPs). This view finds support e.g. in Japanese. As noted by Watanabe (2006), Japanese measure elements require a classifier, which means that they are DPs, and not functional heads above the NP.

5 Conclusion

I conclude that many of the characteristics that make pseudo-partitive heads different from proper partitives (and regular nouns) can be explained as resulting from the process of structural simplification (syntactic grammaticalization, as described by Roberts and Roussou, 1999). Pseudo-partitives are reanalyzed (grammaticalized) partitives, which means that their status has changed from lexical to functional.

References

Becker, Christopher. 2004. Structure and case of Russian container phrases. Paper presented at the 2nd Graduate Colloquium on Slavic Linguistics, Ohio State University, Columbus, November 7, 2004.

Deevy, Patricia. 1999. The Comprehension of English Subject-Verb Agreement. Doctoral Dissertation, University of Massachusetts, Amherst.

Franks, Steven and Katarzyna Dziwirek. 1993. Negated adjunct phrases are really partitive. *Journal of Slavic Linguistics* 1(2):280–305.

Jackendoff, Ray. 1977. X' Syntax: A Study of Phrase Structure Grammar. Cambridge, Mass.: MIT Press.

Koptjevskaja-Tamm, Maria. 2001. "A piece of the cake" and "a cup of tea": partitive and pseudo-partitive nominal constructions in the Circum-Baltic languages. In *The Circum-Baltic Languages: Typology and Contact*, vol. 2, ed. Östen Dahl and Maria Koptjevskaja-Tamm, 523–568. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Longobardi, Giuseppe. 2001. The structure of DPs: some principles, parameters, and problems. In *The Handbook of Contemporary Syntactic Theory*, ed. Mark Baltin and Chris Collins, 562–603. Malden, Mass./Oxford: Blackwell Publishers.

Löbel, Elisabeth. 1989. Q as a functional category. In *Syntactic Phrase Structure Phenomena in Noun Phrases and Sentences*, ed. Christa Bhatt, Elisabeth Löbel and Claudia Schmidt, 133–157. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Roberts, Ian and Anna Roussou. 1999. A formal approach to "grammaticalization". *Linguistics* 37:1011–1041.

Rutkowski, Paweł. 2002a. The syntax of Quantifier Phrases and the inherent vs. structural case distinction. *Linguistic Research* 7.1:43–74.

Rutkowski, Paweł. 2002b. Numerals as grammaticalised nouns: a generative approach. *Interlingüística* 13.III:317–328.

Rutkowski, Paweł. 2006a. Grammaticalisation in the nominal domain: the case of Polish cardinals. Paper presented at the 4th Workshop in General Linguistics, University of Wisconsin, Madison, February 17, 2006.

Rutkowski, Paweł. 2006b. Some remarks on the syntax of genitival phrases in Lithuanian. Paper presented at the 22nd Northwest Linguistics Conference, Simon Fraser University, Burnaby, British Columbia, Canada, February 19, 2006.

Rutkowski, Paweł and Ljiljana Progovac. 2005. Classification Projection in Polish and Serbian: the position and shape of classifying adjectives, In: *Formal Approaches to Slavic Linguistics: The South Carolina Meeting 2004*, ed. Steven Franks, Frank Y. Gladney and Mila Tasseva-Kurktchieva, 289–299. Ann Arbor: Michigan Slavic Publications.

Selkirk, Elisabeth O. 1977. Some remarks on noun phrase structure. In *Formal syntax: Papers from the MSSB-UC Irvine conference on the formal syntax of natural language, Newport Beach, California, June 9-11, 1976*, ed. Peter W. Culicover, Thomas Wasow and Adrian Akmajian, 285–316. New York: Academic Press.

Stavrou, Melita. 2003. Semi-lexical nouns, classifiers, and the interpretation(s) of the pseudopartitive construction. In *From NP to DP*, vol. 1: *The Syntax and Semantics of Noun Phrases*, ed. Martine Coene and Yves D'hulst, 329–353. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Stickney, Helen. 2004. The pseudopartitive and its illusory projections. Ms., University of Massachusetts.

Valkova, Zoya. 1999. Semantics of Case: The Partitive Genitive in Russian, Doctoral Dissertation, University of Alberta, Edmonton.

Watanabe, Akira. 2006. Functional projections of nominals in Japanese: syntax of classifiers. *Natural Language & Linguistic Theory* 24:241–306.

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