

PARTITIVE CONSTRUCTIONS MEET GENDER AGREEMENT: WHAT AGREEMENT MISMATCHES IN FRENCH AND GERMAN CAN TELL US ABOUT THE SYNTACTIC STRUCTURE OF PARTITIVES

THOM WESTVEER¹

Abstract. The syntactic structure of partitives received considerable attention in the literature (Cardinaletti and Giusti 2017; Falco and Zamparelli 2019), but most studies focussed on quantified partitives (*one of the students*), ignoring superlative ones (*the youngest of the students*). Yet, quantified and superlative partitives turn out to differ in terms of the acceptability of gender mismatches (Sleeman and Ihsane 2016; Westveer 2021). The present contribution discusses what the data on agreement mismatches in French and German partitives can teach us about their syntactic structure. Building on an analysis I proposed in Westveer (2021), I argue that the agreement data suggest (i) a structural difference between quantified and superlative partitives, and (ii) a structural difference between French and German quantified partitives. The novel analysis will be shown to provide a straightforward account for the attested differences in acceptability of agreement mismatches, but also to resolve some outstanding issues faced by previous analyses.

Keywords: partitive constructions, gender agreement mismatches, superlative partitives, quantified partitives, French, German.

1. INTRODUCTION

In languages with overt gender morphology, partitive constructions referring to humans may give rise to hybrid gender agreement (cf. Corbett 1991), resulting in gender mismatches. Consider the examples in (1), where the masculine plural noun *étudiants* is used to refer to a mixed group of female and male students. If we select a female student out of this group, we could either use the feminine superlative *la plus jeune* because our referent is a female, or the masculine superlative *le plus jeune*, since the only overt nominal *étudiants* is masculine:

- (1) *La/?Le plus jeune des étudiant-s (est Marie).*
the.F /the.M COMP young of.the.PL student(M)–PL (is Marie)
'The youngest of the students is Marie.'

¹ Universiteit van Amsterdam, T.J.T.Westveer@uva.nl

Experimental studies (Sleeman and Ihsane 2016; Westveer *et al.* 2021) show that speakers of French prefer the feminine form in such superlative partitives (1a), giving rise to a gender mismatch between the masculine set nominal and the feminine superlative. This also holds for German (Westveer 2021):

- (2) *Die/?Der* *jüng-ste* *der* *Student-en* (*ist Marie*).
 the.F/the.M young-SUP the.GEN.PL student(M)-PL (is Marie)
 ‘The youngest of the students is Marie.’

Similar patterns are reported for Italian (Giusti and Zanoli 2022) and Romanian (Tănase–Dogaru 2023).

However, when the partitive is introduced by a quantifier, French turns out to differ from German. While speakers of German still prefer a mismatch, be it to a lesser degree than with superlative partitives (Westveer 2021), this is not the case for speakers of French (Sleeman and Ihsane 2016; Westveer *et al.* 2021):

- (3) a. *Un/?Une* *des* *étudiant-s* (*est Marie*).
 one.M/one.F of.the.PL student(M)-PL (is Marie)
 b. *Eine/?Einer* *der* *Student-en* (*ist Marie*).
 one.F/one.M the.GEN.PL student(M)-PL (is Marie)
 ‘One of the students is Marie.’

For these quantified partitives, Italian patterns with French (Giusti and Zanoli 2022), while Romanian seems to correspond to German (Tănase–Dogaru 2023).

These patterns point towards differences between quantified and superlative partitives, which, in turn, may inform us about their syntactic structure.² While the syntax of partitives in general received considerable attention in the literature (for an overview, see, e.g., Cardinaletti and Giusti 2017; Falco and Zamparelli 2019), superlative partitives seem to have passed largely unnoticed; to the best of my knowledge, their syntactic analysis is only addressed by Sleeman and Ihsane (2016), who also discuss the topic of agreement mismatches. Therefore, the main goal of this paper is to propose a syntactic analysis of partitive constructions that includes both quantified and superlative partitives. In particular, I will discuss how the French and German agreement data contribute to our understanding of the structure of partitives. In a next step, I will show how the syntactic analysis I propose can account for the reported cross-linguistic gender agreement differences.

In section 2, I introduce the key debates in the literature on the syntax of partitives and argue in favour of an analysis of partitives proposed by Westveer (2021). Yet, this analysis left some questions unanswered; section 3 shows how the observations on agreement mismatches may shed light on these issues, which ultimately contribute to an updated syntactic analysis of both quantified and superlative partitives. In section 4, I show how this analysis correctly accounts for the attested agreement patterns in French and

² All studies cited show that apart from partitive type, the specific noun used in the partitive influences the acceptability of a mismatch too. For instance, Westveer (2021) shows that, while mismatches are accepted in German with masculine and feminine human-denoting nouns (e.g., *Student* in 2), this is not the case with neuter human-denoting nouns, such as *Opfer* ‘victim’. I will not discuss such noun differences here, as it would exceed the scope of this paper. I refer the reader to Sleeman and Ihsane (2016) and Westveer (2021) for discussion.

German, whilst addressing some issues that arose from Sleeman and Ihsane's (2016) earlier account of agreement mismatches in partitives in French. Section 5 presents some concluding remarks.

2. STARTING BELOW: PARTITIVES INVOLVE A NOMINAL RELATOR

The syntactic structure of partitive constructions received considerable attention in the literature. However, most studies focussed on quantified partitives; the syntactic structure of superlative partitives has only been addressed in more detail by Sleeman and Ihsane (2016), who built on an earlier analysis by Sleeman and Kester (2002). Sleeman and Ihsane's (2016) analysis formed the starting point for the analysis proposed by Westveer (2021), which I will elaborate on in this paper.

Partitive constructions consist of two parts, the subset phrase, referring to the specific individual(s) or element(s) selected out of a larger set, and the set phrase, denoting the full set of individuals/elements from which the subset is selected. The examples in (4) visualise this for both quantified and superlative partitives; the set phrase is marked using curly brackets:

- (4) a. *one {of the students}*
 b. **one {of all students}*
 c. *the best {of the students}*
 d. *the best {of all students}*

The set phrase in a quantified partitive must be definite (4a); a universal quantifier is not allowed, hence the ungrammaticality of (4b). This requirement is known as the Partitive Constraint (Jackendoff 1977). Superlative partitives can violate the constraint (4d) (cf. Hoeksema 1996).

In the literature on the syntax of partitives, two key questions can be identified: (i) How do set phrase and subset phrase combine to derive a partitive interpretation? (ii) Does the structure of partitives contain one or two NPs? To start with the latter issue, the examples in (4) show that canonical partitives usually involve only one overt noun – often, but not necessarily, the noun denoting the set. Examples involving two overt nouns are generally classified as marginal (cf. Cardinaletti and Giusti 2017), though not impossible (see, e.g., Sauerland and Yatsushiro 2017, on Japanese).

Despite this puzzling state of affairs, most scholars now assume that the syntactic structure of a partitive contains two NPs, and thus, two nouns, one of which usually remains unpronounced (cf. Jackendoff 1977; Sleeman and Kester 2002; Falco and Zamparelli 2019, to name a few). The contrast between such a two–noun analysis and the alternative one–noun analysis is schematised in (5); the second (subset) noun in (5b) is represented as *e* (for empty/unpronounced element):³

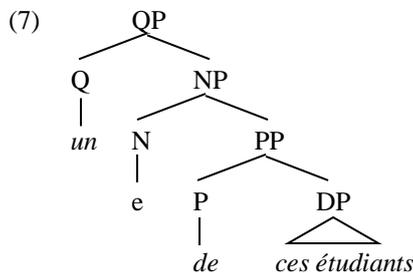
- (5) a. [QP [Q *un*][PP [P *de*][DP [D *ces*][NP [N *étudiants*]]]]]
 b. [QP [Q *un*][NP [N *e*][PP [P *de*][DP [D *ces*][NP [N *étudiants*]]]]]]]

³ One-noun analyses, sometimes involving predicate inversion, are proposed by, e.g., Kupferman (1999), Zribi-Hertz (2003), and Martí-Girbau (2010).

Further motivation for adopting a two noun analysis comes from verbal agreement in sentences featuring a partitive as subject. In such contexts, the verb always agrees in number with the subset phrase and not with the set phrase, as in (6), where the verb *être* ‘to be’ has to take singular agreement, in accordance with the subset of the partitive:

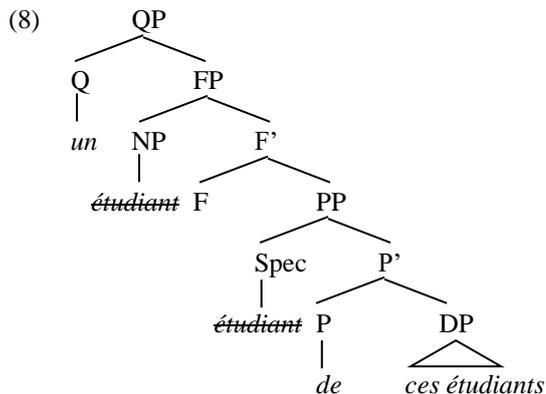
- (6) *Un de mes enfants est malade* /**sont malade-s.*
 one of my.PL child.PL is ill.SG are ill-PL

Turning to the second issue, the syntactic merger of set and subset phrase, many analyses assume that the set phrase – usually represented as a PP, or sometimes as a Residue Phrase, RP (cf. Zamparelli 1998) – merges as the complement of the subset NP, as visualised in (7):



Sleeman and Kester (2002) criticise this assumption by arguing that the set phrase does not seem to be an argument of the subset noun. As such, the set phrase should be excluded from the complement position, which is restricted to arguments such as *of Cartago in the Roman's destruction of Cartago*.

To avoid this issue, Sleeman and Kester (2002) propose an alternative under which a partitive's set and subset phrases combine within a small clause, a proposal also adopted by Sleeman and Ihsane (2016). The structure in (8) presents their analysis of a quantified partitive; the set phrase (the PP *de ces étudiants* ‘of these students’) merges as the complement of a functional projection FP, which hosts the unpronounced subset NP in its specifier position. As such, the set phrase is not a complement of the subset noun:



As the structure in (8) shows, Sleeman and Ihsane (2016) adopt the copy-theory of movement (Nunes 2004) to account for the covertness of the subset noun.⁴

In terms of interpretation of partitive constructions, Sleeman and Ihsane (2016), building, again, on Sleeman and Kester (2002), adopt a *belong*-type interpretation, under which the subset *belongs* to the set. In this, they follow Hulk and Tellier (2000), who propose a similar interpretation for possessive constructions. According to Sleeman and Kester (2002), approaching partitives to possessives is justified because of their comparable behaviour with respect to *en*-cliticization, in contrast to other quantitative or qualitative constructions. Consider the examples in (9–11) (examples from Sleeman and Kester 2002: 8–9):

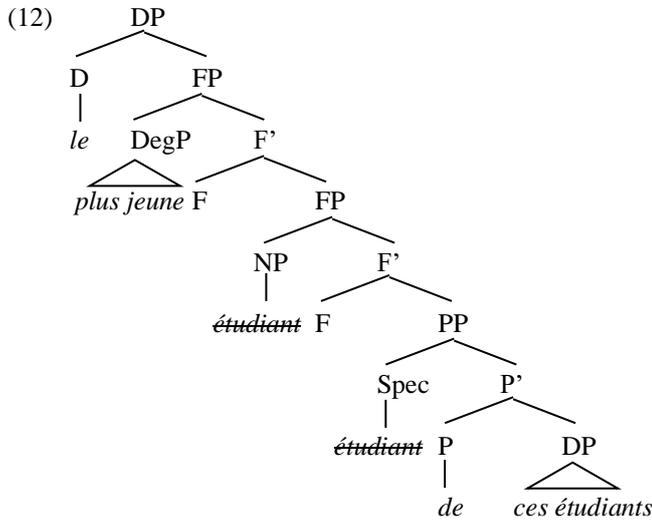
- (9) a. *J'*=*ai* *lu* *la* *première* *page* *du* *chapitre* *premier* *de*
 I=have read the first page of.the chapter first of
ce *livre*.
 this book
- b. **J'*=*en=ai* *lu* *la* *première* *page* *du* *chapitre* *premier*.
 I=of.it=have read the first page of.the chapter first
- (10) a. *J'*=*ai* *lu* *un* *des* *chapitres* *de* *ce* *livre*.
 I=have read one of.the chapters of this book
- b. **J'*=*en=ai* *lu* *un* *des* *chapitres*.
 I=of.it=have read one of.the chapters
- (11) a. *J'*=*ai* *lu* *six* *chapitres* *de* *ce* *livre*.
 I=have read six chapters of this book
- b. *J'*=*en=ai* *lu* *six* *chapitres*.
 I=of.it=have read six chapters

While *en*-cliticization is possible in quantitative constructions (11), it is excluded in both possessives (9) and partitives (10), which justifies adopting a comparable semantic interpretation for both constructions.

Sleeman and Ihsane (2016) do not only propose a syntactic derivation for quantified partitives, but also extend it to superlative partitives. Their analysis only minimally differs from the one they adopt for quantified partitives, specifically concerning the upper part of the structure, as shown in (12):⁵

⁴ Westveer (2021) argues against the copy-theory of movement, mainly for theory-internal reasons. As an alternative, Westveer (2021) proposes that partitives involve a silent TOKEN-element, in the spirit of Kayne (2020). I will leave this question for future work and adopt the copy-theory of movement here, following Sleeman and Ihsane (2016).

⁵ In Sleeman and Ihsane's (2016) analysis, the two partitive types also differ in terms of the absence/presence of a Gender Phrase in the upper part of the structure; I abstract away from this difference for now and come back to it in section 4 when discussing their account of gender agreement.



Compared to (8), the upper part of the structure in (12) is slightly more elaborate as it contains an additional FP, hosting the superlative adjective in its specifier (following Cinque 2010), as well as a DP, headed by the definite determiner.

Westveer (2021) builds on Sleeman and Ihsane's (2016) analysis of quantified and superlative partitives and extends it to German. The motivation for adopting a similar analysis for German comes, again, from the comparability of partitives and possessives – recall the French examples in (9–11) – as shown in (13–14) (examples from Den Dikken 2006: 214–215):

- (13) a. *ein Brief vom Präsidenten*
 a letter of.the.DAT president.DAT
 b. **ein Brief von Präsident(*-en)*
 a letter of president(*DAT)
 c. *ein Brief des Präsidenten*
 a letter the.GEN president.GEN
- (14) a. *einer von den Präsidenten*
 one of the.DAT.PL president.DAT.PL
 b. **einer von Präsident(*-en)*
 one of president(*DAT.PL)
 c. *einer der Präsidenten*
 one the.GEN.PL president.GEN.PL

Both German partitives (14) and possessives (13) allow for an alternation between, on the one hand, the use of the preposition *von* with an article + N marked for dative case, and on the other hand, the use of an article + N bearing genitive case. By contrast, German qualitative constructions do not allow the use of genitive case; the preposition *von* can either *de* accompanied with an article + N in dative case, or a (dative) bare NP, as demonstrated in (15):

- (15) a. *ein Biest von einem Präsidenten*
 a beast of a.DAT president.DAT
 b. *ein Biest von Präsidenten*
 a beast of president.DAT
 c. **ein Biest eines Präsidenten*
 a beast a.GEN president.GEN

This shows that in German, too, partitives pattern with possessives, rather than with qualitatives and quantitatives, which motivates adopting a *belong*-type analysis à la Sleeman and Kester (2002) for German partitives too.

However, extending Sleeman and Ihsane's (2016) analysis to German raises questions considering the analysis of the set phrase, as they assume it to be a PP, headed by the preposition *de* in French. Yet, German canonical partitives do not usually involve a preposition; the set phrase takes genitive case to express the *belong*-interpretation (other languages also use case marking instead of prepositions in partitives, e.g., Japanese, Turkish). Of course, it would be possible to assume that the genitive case in German originates from a covert preposition, but Westveer (2021) argues against such an approach.

German partitives that include the preposition *von* 'of' differ from partitives involving genitive case marking in terms of fronting of the set phrase, which is only possible in a *von*-partitive:

- (16) a. *Von den Studenten heißt einer Peter.*
 of the.DAT.PL student.DAT.PL is.called one Peter
 b. **Der Studenten heißt einer Peter.*
 the.GEN.PL student.GEN.PL is.called one Peter

The contrast between (16a) and (16b) suggests a structural difference between *von*-partitives and partitives involving genitive case in German. To account for this, Westveer (2021) argues that only the structure of *von*-partitives involves a PP, not the structure of canonical partitives.

This raises the question whether the same could apply to French, which Westveer (2021) claims to be the case. That is, there appear to be differences in the acceptability of gender agreement mismatches in French between partitives involving *de* and partitives involving another preposition, *parmi* 'among', as illustrated in (17) (example from Sleeman and Ihsane 2016: 11, footnote 17):

- (17) *La plus intelligent-e parmi mes ancien-s étudiant-s*
 the.F COMP intelligent-f among my.PL former.M-PL student(M)-PL
est malade.
 is ill
 'The most intelligent of my former students is ill.'

Sleeman and Ihsane (2016) report a greater acceptability of mismatches for partitives involving *parmi*, which could be argued to arise from a structural difference

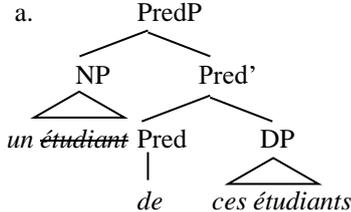
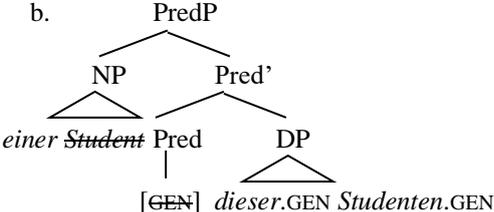
between *parmi*- and *de*-partitives; only *parmi* should be analysed as a true preposition, heading a PP. French *de* is a functional element, in line with what has been claimed about the prepositions *à* and *de* in French, sometimes labelled *prépositions incolores* (cf. Marque-Pucheu 2008) or *prépositions légères* (Abeillé *et al.* 2006) in the literature. Interestingly, a similar claim for partitives in the Romance languages is made by Espinal and Cyrino (2022)⁶.

Finally, for Italian partitives involving *tra* ‘among’, Cardinaletti and Giusti (2017) show that the restriction against two overt nouns does not hold (examples from Cardinaletti and Giusti 2017: 31):

- (18) a. **Ho letto molti romanza dei libri della biblioteca.*
 have.1SG read many novel.PL of.the book.PL in.the library
 b. *Ho letto molti romanza tra i libre della biblioteca.*
 have.1SG read many novel.PL among the book.PL in.the library
 ‘I have read many novels among the books in the library.’

This suggests, again, that those partitives are structurally different. Therefore, Westveer (2021) argues that canonical partitives (at least in French and German, but possibly in other languages as well) do not involve a PP.

In the spirit of Den Dikken (2006), and in accordance with Espinal and Cyrino (2022), Westveer (2021) proposes that partitives involve a relator element, as shown in (19):

- (19) a. 
 b. 

In (19a–b), the set-denoting DP merges as a complement of a functional projection labelled PredP (for Predicative Phrase), while the subset phrase – represented as NP for now – is located in the specifier position; this is reminiscent of Sleeman and Kester’s (2002) small clause approach and gives rise to the partitive interpretation, under which the subset *belongs* to the set. The head Pred in French partitives spells-out as *de* at PF (19a), whereas in German (19b), the case feature [GEN] on Pred triggers genitive case marking on the set-denoting DP.

For now, I leave aside the exact location of the quantifier (in a quantified partitive) or the superlative (in a superlative partitive). In the next section, I return to the agreement data presented in the introduction and show how it informs us about the configuration of the upper part of the structure of partitives.

⁶ I refer the reader to Espinal and Cyrino’s (2022) paper for further arguments against the analysis of *de* as a preposition in partitives in Romance.

3. MOVING UP: SUPERLATIVE VERSUS QUANTIFIED PARTITIVES

For convenience, Table 1 summarises the agreement patterns for French and German partitives reported in the introduction:

Table 1 – overview of agreement patterns

	French	German
Quantified partitives	Preference for no mismatch	Preference for mismatch (weaker than for superlative partitives)
Superlative partitives	Preference for mismatch	Preference for mismatch

On the basis of these observations, we can identify two sources of variation (cf. Sleeman and Ihsane 2016; Westveer 2021). First, the acceptability of gender mismatches varies between quantified and superlative partitives in both languages. Second, there is a difference between French and German, as only for French, a clear-cut opposition between quantified and superlative partitives is found. In terms of syntactic derivation, these observations suggest that the structure of superlative partitives differs to some extent from the structure of quantified partitives.

Westveer (2021) attributes the contrast between quantified and superlative partitives to a difference in structural complexity. In quantified partitives, the small clause PredP is selected by a QP, headed by the quantifier, as in (20a–b):

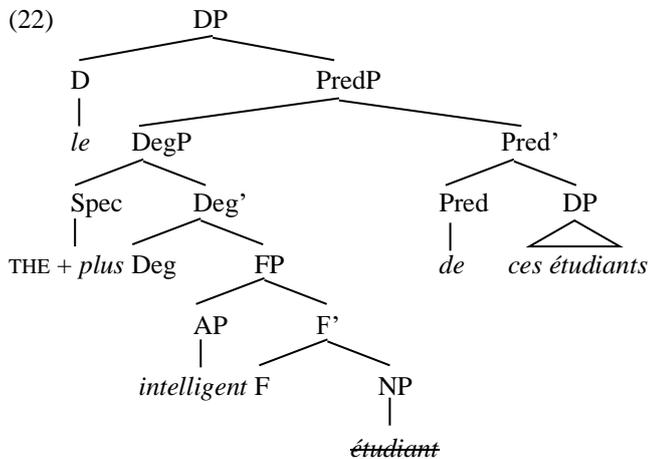
- (20) a. [QP [Q *un*]<sub>[PredP [NP *étudiant*]_[Pred de]]<sub>[DP *ces étudiants*]]]
 b. [QP [Q *einer*]_{[PredP [NP *Student*]_[Pred GEN]]_[DP *der.GEN Studenten.GEN*]]]}</sub></sub>

By contrast, superlative partitives require a more articulate structure dominating PredP, containing at least a functional projection hosting the superlative adjective (building on Cinque 2010) and a DP, headed by the definite determiner, as in (21a–b):

- (21) a. [DP [D *le*]<sub>[FP [DegP *plus intelligent*]_[F]]<sub>[PredP [NP *étudiant*]_[Pred de]]<sub>[DP *ces étudiants*]]]
 b. [DP [D *der*]_{[FP [DegP *intelligenteste*]_[F]]_{[PredP [NP *Student*]_[Pred GEN]]_[DP *der.GEN Studenten.GEN*]]]}}</sub></sub></sub>

Attributing the agreement differences between quantified and superlative partitives to a structural difference seems reasonable. Yet, the derivations in (20–21) raise some questions with respect to semantics, which are left unanswered in Westveer (2021). First, the semantic relation between, on the one hand, the quantifier or the superlative, and, on the other hand, the subset NP, cannot straightforwardly be derived. Second, in superlative partitives, the analysis of the superlative itself (adopted from Sleeman and Ihsane 2016) is not satisfactory.

To start with the latter, under the proposed analysis in (21a), the definite article merges separately from the DegP hosting the comparative morpheme *plus* and the adjective. This does not explain the obligatory presence of a definite article in superlatives in French (cf. Kayne 2008). To address this issue, I propose the structure in (22) for superlative partitives in French, which differs from the proposal in Westveer (2021) in terms of the position and the structural makeup of the DegP hosting the superlative:



In (22), the DegP containing the superlative is merged in the specifier position of PredP – the functional projection forming the small clause that unites the partitive’s set and subset phrases – and not on top of PredP (21a). PredP is selected by a DP, headed by the overt definite article *le*. Crucially, I assume that DegP includes an abstract definite article THE that distinguishes the superlative from the comparative, which also uses the morpheme *plus* in French.

In this, I follow Dobrovie–Sorin (2023), who claims that the definite article in French superlatives should be treated on a par with superlative affixes, such as *-est* in English (e.g., *biggest*). In this way, she explains why French postnominal superlative adjectives require the presence of a second definite article (23b), as opposed to Italian (23a) and other Romance languages except Romanian (examples from Dobrovie–Sorin 2023: 98):

- (23) a. *la ragazza (*la) più povera*
 the girl the COMP poor
 b. *la fille *(la) plus pauvre*
 the girl the COMP poor
 ‘the poorest girl’

Dobrovie–Sorin (2023) proposes this analysis as an alternative to Loccioni (2018). Loccioni (2018) argues that postnominal superlatives in both French and Italian are obligatorily preceded by a definite article, which, in the case of Italian, is not overtly expressed. Dobrovie–Sorin (2023) criticises this approach, as French (and Romanian) seems to be typologically rather exceptional in requiring the presence of a definite article in postnominal superlative adjectives. Therefore, she argues against the cross–linguistic postulation of a definite article for postnominal superlatives.

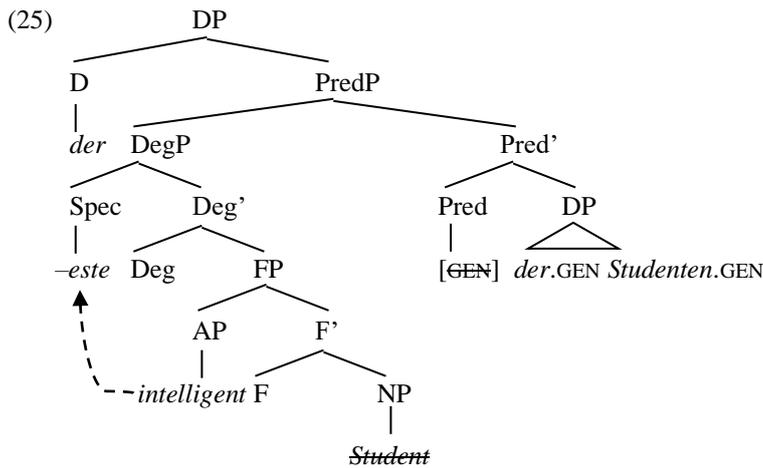
For French, Dobrovie–Sorin (2023) claims that the definite article preceding postnominal superlatives is different from ordinary definite articles. This is further motivated by cases of coordination, as discussed by Alexiadou (2014):

- (24) *le roman et le film les plus intéressants*
 the.SG novel(SG) and the.SG film(SG) the.PL COMP interesting.PL

In (24), the article *les* preceding the postnominal superlative takes the plural form, while the articles preceding the nouns *roman* and *film*, respectively, take the singular form.

Returning to the structure for the superlative partitive in (22), one could question the presence of the upstairs DP that dominates PredP, given that, following Dobrovie–Sorin (2023), I take DegP to include a definite article.⁷ However, while the definite article within DegP is required to derive the superlative reading in French, the presence of the upstairs article, heading a DP, can be argued to depend on other factors, such as referentiality or specificity, as has been proposed in several studies (e.g., Aboh 2002; Laenzlinger 2005). The fact that in superlative partitives only one definite article is overt could then be attributed to a haplology effect (cf. Matushansky 2008).

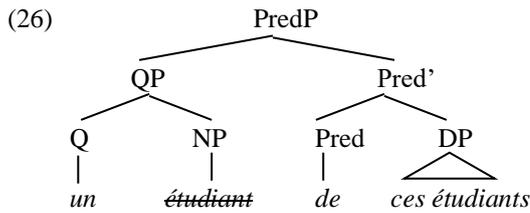
For German, the structure is largely comparable, the main difference lying in the fact that the German superlative does not derive from the comparative by adding a definite article, as in French, but rather through morphological marking on the adjective. That is, German superlative adjectives take the suffix *-(e)ste*, as in *schön* ‘beautiful’ > *schöner* ‘more beautiful’ > *schönste* ‘most beautiful’, which is comparable to English. Therefore, I follow Dobrovie–Sorin’s (2023) proposal (building on Dunbar and Wellwood 2016) for English superlatives. The superlative morpheme *-(e)ste* is merged in [Spec, DegP], as shown in the structure for the German superlative partitive in (25):



In (25), the DegP containing the adjective and the superlative morpheme *-este* is merged in the specifier position of PredP, the small clause, which unites set phrase and subset phrase. In contrast to the structure for French in (22), the DegP does not contain a definite article, as the superlative meaning is derived by adding the suffix *-este* to the adjective. PredP, in turn, is selected by a DP, headed by the definite article *der*, which functions as a marker of specificity: the superlative refers to a specific referent in discourse. As such, German presents further motivation for the postulation of a DP dominating PredP in the structure of superlative partitives.

⁷ A similar point could be raised regarding prenominal superlatives (e.g., *le plus gentil garçon* ‘the kindest boy’), which Dobrovie–Sorin (2023) does not discuss.

Assuming that the projection containing the superlative merges in the specifier position of PredP, where it dominates the subset NP, allows for a more straightforward explanation of the semantic relation between the subset NP and the superlative, thus addressing this issue left unanswered in Westveer's (2021) analysis. A similar point can be made for quantified partitives, where the semantic relation between the quantifier and the subset NP should also boil down from the structure. Therefore, I propose the analysis in (26) for quantified partitives in French:



In (26), the QP, headed by the cardinal numeral *un*, is merged in [Spec, PredP] and takes the covert subset NP as its complement.

The advantage of this derivation over the structure proposed in (20a) – where only the subset NP is merged in [Spec, PredP], the QP being located on top of PredP – is that it accounts for the semantic relation between the cardinal and the subset NP. In fact, Ionin *et al.* (2006) argue that the cardinal needs to select an empty nominal to satisfy its atomicity requirement (cf. Ionin and Matushansky 2004), which, in turn is necessary to derive the required partitive interpretation of the clause, as the subset needs to be a proper part of the set in a quantified partitive.

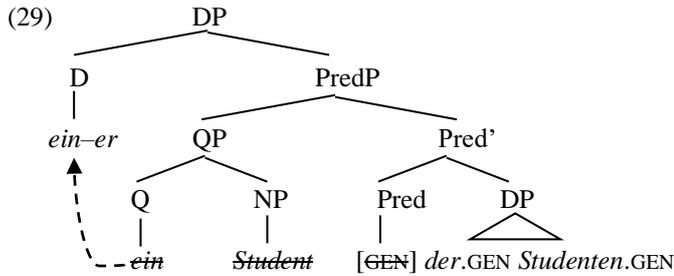
For German quantified partitives, we could, in principle, adopt exactly the same structure. However, the German cardinal *ein* differs from its French counterpart in a crucial way. While French *un* is identical to the indefinite determiner *un*, the behaviour of German *ein* partly differs from the indefinite determiner *ein*. Consider the examples in (27–28):

- (27) a. *un étudiant*
a/one student
b. *ein Student*
a/one student

- (28) a. *un étudiant des étudiants*
one student of.the students
b. *ein-er Student der Studenten*
one.M.SG.NOM student the.GEN students

In (27), *ein/un* are combined with an overt nominal and are (without context) ambiguous between a reading as cardinal ‘one’ and a reading as indefinite determiner ‘a’. In (28), *ein/un* are used in the context of nominal ellipsis, which forces the reading as a cardinal. In German, the cardinal *ein* follows the strong morphological inflection paradigm, making it formally different from *ein* in (27b). In French, the cardinal *un* does not present any morphological changes when used in such contexts; *un* keeps the same form in both (27a) and (28a).

To account for this formal distinction in German, it has been argued that the cardinal raises to D in order to combine with the inflectional morphemes (see, e.g., Murphy 2018, and references therein). Taking into account this assumption, I propose the structure in (29) for German quantified partitives:



The structure for German in (29) differs from the one proposed for French (26) in the presence of a DP that selects PredP. This DP contains the strong inflection morpheme in its head position and, thus, triggers head movement of the cardinal *ein* out of the QP. In French, as the cardinal does not combine with additional morphemes, there is no reason for movement out of QP. As such, the analysis accounts for the morphological difference between French and German, while still allowing to satisfy the atomicity requirement of the cardinal (cf. Ionin *et al.* 2006), since the latter originates in a position where it takes the covert subset noun as a complement. This would be less straightforward if we would assume the QP to be located on top of PredP (as proposed in Westveer 2021).

Further motivation for this structural difference between French and German quantified partitives comes from the agreement data (see Table 1): while agreement mismatches are accepted in German quantified partitives, this is not the case for French. As I will show in the next section, the proposed structural difference between French and German quantified partitives allows for a straightforward account of this state of affairs.

4. BACK TO AGREEMENT MISMATCHES

Sleeman and Ihsane (2016) account for the differences in acceptability of gender mismatches between quantified and superlative partitives in French by adopting a structural difference between the two partitive types. Specifically, this concerns the presence or absence of a functional projection dedicated to semantic gender – labelled Gender Phrase (GendP) and inspired by Picallo (1991) – modifying the subset NP. Sleeman and Ihsane (2016) argue that semantic gender should be distinguished from grammatical gender. While grammatical gender is stored on the noun in the lexicon and represented on the N–head in the structure, semantic gender is located on the head of the Gender Phrase.

Furthermore, Sleeman and Ihsane (2016) argue that nouns for which a gender mismatch is allowed are unmarked for grammatical gender; with those nouns, gender can only be valued semantically through the feature on the Gend–head. If the set noun is unmarked for grammatical gender in the lexicon and gender is not valued semantically either – which is the case in the specific partitive context we are interested in, namely, those referring to a mixed group – the gender features within the set–denoting DP remain

unvalued. Following Preminger (2011), Sleeman and Ihsane (2016) argue that this does not cause the derivation to crash. Instead, it results in spell–out of default gender, in French being the masculine. Under these specific conditions, a gender mismatch can arise in superlative, but not in quantified partitives.

Consider, first, the structure of the superlative partitive in (30), as proposed by Sleeman and Ihsane (2016):

- (30) [_{DP} [_D *la*.F][_{FP} [_{DegP} *plus gentille*.F][_F]][_{GendP} [_{Gend} FEM]][_{FP} [_{NP} *étudiante*][_F]][_{PP} [_{NP} *étudiante*][_P *de*][_{DP} [_D *ces*][_{GendP} [_{Gend} _]][_{NP} *étudiants*.M]]]]]]]]

In (30), the Gender Phrase in the set–denoting DP has not received a value through semantic valuation, ultimately resulting in spell–out of default masculine gender. However, the structure of the superlative partitive contains a second Gender Phrase, dominating the subset NP, which offers a second locus for semantic feature valuation. Since the feature on *Gend* is valued as [FEM], the superlative takes the feminine form, causing a mismatch between the default masculine set phrase and the feminine superlative.

According to Sleeman and Ihsane (2016), quantified partitives do not give rise to gender mismatches because they are structurally different, as shown in (31):

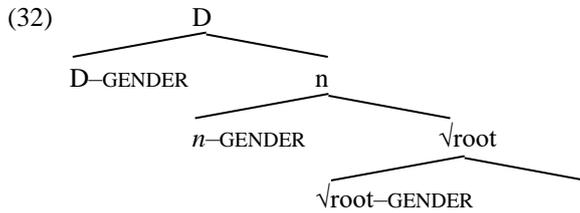
- (31) [_{QP} [_Q *un*.M][_{FP} [_{NP} *étudiant*][_F]][_{PP} [_{NP} *étudiant*][_P *de*][_{DP} [_D *ces*][_{GendP} [_{Gend} _]][_{NP} *étudiants*.M]]]]]]]]

If we compare the structure for the quantified partitive in (31) to the one for the superlative partitive in (30), we observe that the structure for the quantified partitive lacks the second Gender Phrase dominating the subset NP. Hence, quantified partitives do not present a second opportunity for semantic feature valuation; if Failed Agree results in spell–out of default masculine gender in the set phrase, the subset phrase can only agree with the set phrase’s masculine gender, causing the cardinal to take the masculine form too.

While Sleeman and Ihsane’s (2016) analysis could be extended to German superlative partitives, it falls short in accounting for agreement in quantified partitives. Recall that in German, a mismatch is preferred in quantified partitives, as opposed to French. To account for this state of affairs within Sleeman and Ihsane’s (2016) approach, one would have to postulate a second Gender Phrase dominating the subset NP in German quantified partitives to provide an opportunity for semantic gender on the cardinal. Yet, there does not seem to be any independent motivation for this. Besides, from a theoretical point of view, the postulation of a functional projection dedicated to gender is criticised in the literature (cf. Alexiadou 2004; Kramer 2016).

To avoid the unmotivated postulation of a Gender Phrase, Westveer (2021) assumes that gender features (at least for animate nouns) are present on both the N–head (or the *n*–head within the framework of Distributed Morphology, see, e.g., Kramer 2016) and the D–head. In this, he builds on Steriopolo and Wiltschko (2010), who propose the DISTRIBUTED GENDER HYPOTHESIS in (32) to account for typological differences in the influence of semantic information on gender:⁸

⁸ I do not further discuss *n*-GENDER or $\sqrt{\text{root}}$ -GENDER, as they are not relevant for the point I intend to make here. The interested reader is referred to Steriopolo and Wiltschko (2010) for more details.



Specifically, D-GENDER, or discourse gender, receives its value from the noun's referent in discourse. The presence of such a referent-related feature is also proposed by Wechsler and Zlatić (2003) in their analysis of hybrid agreement within the HPSG-framework. As I will show in what follows, postulating a referent-related feature on D allows to account for the distinct agreement patterns in French and German partitives.

The structure for French superlative partitives is repeated in (33):



Crucially, since the subset phrase is headed by a DP in (33), which I take to bear a referent-related gender feature, speakers do not have to retrieve the grammatical gender of the masculine set noun *étudiants*. Instead, the superlative denoting the subset can receive a semantic gender value from discourse. Since the referent is female, the superlative *la plus jeune* takes feminine gender, giving rise to a mismatch between set and subset. A similar explanation can be adopted for superlative partitives in German. This is exemplified in (34):



The superlative *die jüngste* in (34) receives a semantic gender value through the referent-related feature on the outer DP, resulting, again, in a mismatch between set and subset.

By contrast, mismatches are not allowed in French quantified partitives. How does the proposed analysis account for this? Recall that the upper part of the structure of French quantified partitives lacks a DP, and, thus, the referent-related feature, as shown in (35):



Since there is no DP dominating the subset phrase in (35), there is no means to retrieve a semantic gender value from discourse. Instead, the cardinal agrees with the grammatical gender of the set noun, resulting in the masculine form *un*, not giving rise to a mismatch.

Westveer (2021) adopts the same structural analysis for French and German quantified partitives (see 20a–b). In both languages, the upper part of the structure lacks a DP and, thus, a referent-related feature allowing for semantic gender valuation of the subset phrase. Yet, German quantified partitives allow for a mismatch, unlike French. To explain this contrast, Westveer (2021) proposes an account based on morphological markedness of gender. As show the examples in (36–37), French attributive adjectives show gender distinctions in the plural, unlike their German counterparts:

- (36) a. *les* *étudiant-s* *intelligent-s*
 the.PL student(M)-PL intelligent.M-PL
 b. *les* *étudiant-e-s* *intelligent-e-s*
 the.PL student-F-PL intelligent-F-PL
- (37) a. *die* *intelligent-en* *Student-en*
 the.PL intelligent-PL student(M)-PL
 b. *die* *intelligent-en* *Student-inn-en*
 the.PL intelligent-PL student-F-PL

Based on this contrast, Westveer (2021) assumes that in German quantified partitives, the set phrase presents less morphological gender cues, as only the set noun encodes gender on its morphological form. In French, gender is also encoded on attributive adjectives, and, as such, gender is present higher up in the structure of the set phrase, where it can act as a probe for gender agreement in the subset phrase. Therefore, it is proposed that in German, semantic feature valuation on the cardinal presents an economical alternative to retrieval of gender from the set noun. Yet, this reasoning falls short when considering examples of partitives whose set noun is not modified by an attributive adjective.

The alternative analysis of German quantified partitives I proposed in the previous section (see 29) can account for the acceptance of mismatches without having to resort to an explanation in terms of differences in morphological markedness of gender. Recall that within the structure I proposed for German quantified partitives, PredP is dominated by a DP, to which the cardinal moves to combine with the strong inflection morphemes. As such, the upper part of the structure contains a DP, and, thus, a referent-related feature, allowing for semantic gender valuation from discourse. This is exemplified in (38):

- (38) [DP [D *eine*.F]][PredP [QP [Q ~~*ein*~~][NP ~~*Student*~~]][Pred GEN][DP *der Studenten*.M]]

Further motivation for this structural explanation – and against the morphological markedness approach – comes from Romanian. As I mentioned in the introduction, Tănase-Dogaru (2023) shows that mismatches are possible in Romanian quantified partitives. Consider the examples below (from Tănase-Dogaru 2023: 47):

- (39) *Una/Unul* *dintre* *profesorii* *buni* *este* *Maria*.
 one.F/one.M PART teacher(M).DEF.PL good.M.PL is Maria
 ‘One of the good teachers is Maria.’

Romanian patterns with German, but unlike German, most adjectives in Romanian have distinct morphological forms for the masculine and the feminine/neuter in the plural (e.g., *buni* ‘good.M.PL’ vs. *bune* ‘good.F/N.PL’) (cf. Cojocaru 2003). As a consequence, an explication based on morphological markedness of gender in the plural does not work. Instead, a comparable analysis as I adopted for German quantified partitives (cf. 38) could be assumed for Romanian, whereby a DP is merged on top of PredP. Independent motivation for the presence of a DP in the subset phrase of Romanian quantified partitives comes from Cornilescu and Nicolae (2011), who argue that the Romanian indefinite *una/unul* ‘one’ involves definiteness.

As such, the syntactic analysis I propose seems to account for Romanian too. Yet, I leave a more detailed analysis of Romanian partitives for future work, as it would exceed the scope of this paper. A similar note can be made for Italian. The agreement data reported by Giusti and Zanoli (2022) show that Italian patterns with French in only allowing gender mismatches in superlative partitives. Therefore, the analysis for French could be extended to Italian, but future work needs to verify this assumption.

5. CONCLUDING REMARKS

This paper aimed at showing what insights data on gender agreement mismatches in French and German could provide us about the syntactic structure of quantified and superlative partitive constructions. While the structure of partitives received considerable attention in the literature, most studies neither addressed the structure of superlative partitives, nor gender agreement, apart from Sleeman and Ihsane (2016) and Westveer (2021).

Starting from the syntactic structure of partitives proposed in Westveer (2021), I showed what the agreement data teach us about the syntactic structure of partitives. Specifically, I adopted a small clause approach to partitives involving a Predicate Phrase headed by a relator element (building on Sleeman and Kester 2002, and Den Dikken 2006), which spells-out as *de* in French, or triggers genitive case marking in German. While the set phrase merges as complement of this Predicative Phrase, the subset merges in its specifier position. To discriminate between quantified and superlative partitives, I argued that both partitive types differ in terms of the structure of the subset phrase, which is more articulate for superlative partitives.

I also showed how this analysis straightforwardly explained differences and resemblances between French and German in terms of the acceptability of gender mismatches, while avoiding the issues raised by the previous analyses of Sleeman and Ihsane (2016) and Westveer (2021). Future work should verify this analysis for partitive constructions in other languages; the present study already stipulated that the analysis seems to work for Romanian and Italian. Finally, it should be investigated how the analysis proposed for partitives compares to other related syntactic constructions, such as pseudopartitives, or other quantitative constructions.

REFERENCES

- Abeillé, A., O. Bonami, D. Godard, J. Tseng, 2006, “The syntax of French *à* and *de*: an HPSG analysis”, in: P. Saint-Dizier (ed.), *Syntax and Semantics of Prepositions*, Dordrecht, Springer, 147–162.
- Aboh, E. O., 2002, “La morphosyntaxe de la périphérie gauche nominale”, *Recherches linguistiques de Vincennes*, 31, 9–26.
- Alexiadou, A., 2004, “Inflection Class. Gender and DP Internal Structure”, in: G. Müller, L. Gunkel, G. Zifonun (eds.), *Explorations in Nominal Inflection*, Berlin, Walter de Gruyter, 21–50.
- Alexiadou, A., 2014, *Multiple Determiners and the Structure of DPs*, Amsterdam/Philadelphia, John Benjamins.
- Cardinaletti, A., G. Giusti, 2017, “Quantified Expressions and Quantitative Clitics”, in: M. Everaert, H. C. van Riemsdijk (eds), *The Wiley Blackwell Companion to Syntax* (2nd edn.), John Wiley & Sons, 1–61.

- Cinque, G., 2010, *The Syntax of Adjectives: A Comparative Study*, Cambridge MA, MIT Press.
- Cojocaru, D., 2003, *Romanian grammar*, Durham NC, Slavic and East European Language Research Center SEELRC, Duke University.
- Corbett, G. G., 1991, *Gender*, Cambridge, Cambridge University Press.
- Cornilescu, A., A. Nicolae, 2011, "On the syntax of the Romanian indefinite pronouns *unul* and *altul*", in: R. Zafiu, C. Uşurelu, H. Bogdan Oprea (eds), *Limba română. Ipoteze ale variației lingvistice*, Bucharest, Editura Universității din București, 67–94.
- den Dikken, M., 2006, *Relators and Linkers: The Syntax of Predication, Predicate Inversion, and Copulas*, Cambridge MA, MIT Press.
- Dobrovie-Sorin, C., 2023, "Comparatives, Superlatives and Definiteness in Romance", *Quilso*, 9, 97–116.
- Dunbar, E., A. Wellwood, 2016, "Addressing the 'two interface' problem: Comparatives and superlatives", *Glossa*, 1, 5, 1–29.
- Espinal, M. T., S. Cyrino, 2022, "The status of *de* in Romance indefinites, partitives and pseudopartitives", *Studia Linguistica*, 76 (1), 167–211.
- Falco, M., R. Zamparelli, 2019, "Partitives and partitivity", *Glossa*, 4, 1, 111–158.
- Giusti, G., E. Zanoli, 2022, "Tra lingua et cultura: I partitivi dei nomi di ruolo in italiano", in: B. Fagard, G. Le Tallec (eds), *Entre masculine et féminin : français et langues romanes*, Paris, Presses Sorbonne Nouvelle, 247–264.
- Hoeksema, J., 1996, "Introduction", in: J. Hoeksema (ed.), *Partitives: Studies on the Syntax and Semantics of Partitive and Related Constructions*, Berlin, Mouton de Gruyter, 1–24.
- Hulk, A., C. Tellier, 2000, "Mismatches: Agreement in qualitative constructions", *Probus*, 12, 33–65.
- Ionin, T., O. Matushansky, 2004, "A singular plural", in: B. Schmeiser, V. Chand, A. Kelleher, A. Rodríguez (eds), *WCCFL 23: Proceedings of the 23rd West Coast Conference on Formal Linguistics*, Stanford, CSLI, 101–114.
- Ionin, T., O. Matushansky, E. G. Ruys, 2006, "Parts of Speech: Toward a Unified Semantics for Partitives", *Proceedings of NELS 36*, 357–370.
- Jackendoff, R., 1977, *X-bar Syntax*, Cambridge MA, MIT Press.
- Kayne, R. S., 2008, "Some Preliminary Comparative Remarks on French and Italian Definite Articles", in: R. Freidin, C. P. Otero, M. L. Zubizarreta, S. J. Keyser (eds), *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*, Cambridge MA, MIT Press, 291–321.
- Kayne, R. S., 2020, "A note on the tension between silent elements and lexical ambiguity, with special reference to inalienable possession", *Arborescences*, 10, 103–112.
- Kramer, R., 2016, "The location of gender features in the syntax", *Lang Linguist Compass*, 10, 661–677.
- Kupferman, L., 1999, "Réflexions sur la partition : les groupes nominaux partitifs et la relativisation", *Langue Française*, 122, 30–51.
- Laenzlinger, C., 2005, "French adjective ordering: Perspectives on DP-intrnal movement types", *Lingua*, 115, 645–689.
- Loccioni, N., 2018, *Getting "The Most" Out of Romance*, PhD Dissertation, Los Angeles CA, University of California.
- Marque-Pucheu, C., 2008, "La couleur des prépositions à et de", *Langue française*, 157, 1, 74–105.
- Martí-Girbau, N., 2010, *The Syntax of Partitives*, Ph.D. Dissertation, Universitat Autònoma de Barcelona.
- Matushansky, O., 2008, "On the Attributive Nature of Superlatives", *Syntax*, 11, 1, 26–90.
- Murphy, A., 2018, "Pronominal inflection and NP ellipsis in German", *J Comp German Linguistics*, 21, 327–379.
- Nunes, J., 2004, *Linearization of Chains and Sideward Movement*, Cambridge MA, MIT Press.
- Picallo, M. C., 1991, "Nominals and nominalization in Catalan", *Probus*, 3, 279–316.
- Preminger, O., 2011, *Agreement as a Fallible Operation*, PhD dissertation, MIT.
- Sauerland, U., K. Yatsushiro, 2017, "Two nouns in partitives: evidence from Japanese", *Glossa*, 2, 1, 13, 1–29.
- Sleeman, P., T. Ihsane, 2016, "Gender mismatches in partitive constructions with superlatives in French", *Glossa*, 1, 35, 1–25.

- Sleeman, P., E.-P. Kester, 2002, “Partitive constructions and anti-symmetry”, in: C. Beyssade, R. Bok-Bennema, F. Drijkoningen, P. Monachessi (eds), *Romance languages and linguistic theory (Current Issues in Linguistic Theory)*, Amsterdam, John Benjamins, 271–286.
- Steriopolo, O., M. Wiltschko, 2010, “Distributed GENDER hypothesis”, in: G. Zybatow, P. Dudchuk, S. Minor, E. Pshehotskaya (eds.), *Formal Studies in Slavic Linguistics*, New York, Peter Lang, 155–172.
- Tănase-Dogaru, M., 2023, “On Gender Mismatches in Superlative and Quantified Partitives”, in: M. Burada, O. Tatu, R. Sinu (eds), *Language and Communication in the Digital Age*, Newcastle upon Tyne, Cambridge Scholars Publishing, 155–172.
- Wechsler, S., L. Zlatić, 2003, *The Many Faces of Agreement*, Stanford CA, CSLI Publications.
- Westveer, T., 2021, *Gender mismatches in partitive constructions in French and German: How society shapes language*, Amsterdam, LOT.
- Westveer, T., P. Sleeman, E. O. Aboh, 2021, “Competing genders: French partitive constructions between grammatical and semantic gender”, in: M.-O. Hinzelin, N. Pomino, E.-M. Remberger (eds), *Formal approaches to Romance morphosyntax*, Berlin, De Gruyter, 49–87.
- Zamparelli, R., 1998, “A Theory of Kinds. Partitives and of/z Possessives”, in: A. Alexiadou, C. Wilder (eds), *Possessors, Predicates and Movement in the Determiner Phrase*, Amsterdam, John Benjamins, 259–304.
- Zribi-Hertz, A., 2003, “Pour une analyse unitaire de *de* partitive”, in: F. Corblin, L. Kupferman (eds), *Proceedings of the Indéfinis et prédication conference*, Paris, Presses de la Sorbonne, 141–154.

