# Unbalanced case and the syntax of coordination

Anna Grabovac[*]

**Abstract**. Coordinate structures seem to display a mix of both asymmetric and symmetric properties. As a result, individual theories of the syntax of coordination roughly divide into two classes: those that argue for an asymmetric syntax and those that adopt a symmetric syntax. This paper investigates an apparently asymmetric property of coordination, unbalanced case, where not all conjuncts in a coordinate structure realize the same case. I examine data from Bosnian/Croatian/ Serbian which provide evidence of a first-conjunct effect, where the acceptability of an example depends on the ability of the first conjunct to realize the case licensed on the coordinate structure. Despite this case asymmetry, I show that the data are compatible with theories that argue for symmetric syntax, which have gained traction in recent work. The proposed analysis relies on a theory of concord as realization and a postsyntactic condition on case adjacency.

**Keywords**. unbalanced case; genitive of quantification; mutual adjunction; concord; Bosnian/Croatian/Serbian

**1. Introduction**. Examples of coordination, which have seen renewed interest in recent literature, can be characterized by a tension between symmetry and asymmetry. This tension stems from the fact that the properties of coordinate structures sometimes appear at odds with the typical nature of structure building in generative theories. For example, it is traditionally assumed that syntactic structures are *endocentric* and *binary branching* (though see Neeleman et al. 2023 for arguments that these restrictions should not be taken for granted). The structure in (1) illustrates the outcome of these restrictions; only P projects and DP is subordinate, giving rise to structural asymmetry.

(1)

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        PP
       /  \
      P    DP
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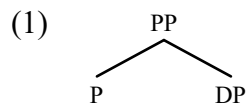
Many properties of coordinate structures are indeed compatible with such an asymmetric syntax. For example, the fact that a universal in the first conjunct can bind a variable in the second conjunct, but not vice versa, is often cited as evidence that the first conjunct asymmetrically c-commands the second (Munn 1993, but see Progovac 1997, 2003 for an alternative analysis).

(2)     a. Every student$_i$ and their$_i$ roommate studied for the exam.
        b. *Their$_i$ roommate and every student$_i$ studied for the exam.

Agreement asymmetries, which occur when a predicate agrees with only one conjunct, have also been interpreted as evidence that coordination is syntactically asymmetric (Johannessen 1998;

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Benmamoun et al. 2009; Marušič et al. 2015; Nevins & Weisser 2019, among others). (3) illustrates an example of closest-conjunct agreement in Bosnian/Croatian/Serbian (BCS).

(3)  BCS (adapted from Willer-Gold et al. 2016: 189)
     Oglasil-e      su        se     trub-e        i     zvon-a.
     sounded-**F.PL**  AUX.3PL   REFL   trumpet-**F.PL**  and   bell-N.PL
     'Trumpets and bells resounded.'

However, it has also been observed that coordinate structures exhibit certain symmetric qualities. Conjuncts are often commutative without a significant change in meaning, as in (4). Moreover, any extraction from a coordinate structure cannot single out a conjunct but must occur across-the-board, as shown in (5) (Ross 1967's Coordinate Structure Constraint; see Fox 2000 for discussion of apparent counterexamples). Example (6) displays symmetry in selectional restrictions—all conjuncts must satisfy the requirements of the selecting head (this is roughly Wasow's Generalization as discussed in Pullum & Zwicky 1986; see Bruening & Al Khalaf 2020 for further discussion of the coordination of unlike categories).

(4)  {Katherine and Evan / Evan and Katherine} went for groceries.
(5)  *Who$_i$ did they meet [Alex and $t_i$]?
(6)  *They became [$_{PP}$ under scrutiny] and [$_{DP}$ a leader].

Examples such as these have been interpreted as evidence that the conjuncts in a coordinate structure are equal in status, so no conjunct is subordinate to another. As a result, recent literature has shown a growing number of accounts in favor of coordination as an exception to endocentricity and binary branching, where coordination is analyzed with a symmetric syntax (Philip 2012; Al Khalaf 2015; Wu 2022; Neeleman et al. 2023). Given this recent trend, this paper sets out to explore how a symmetric theory of coordinate structure stacks up against an apparently asymmetric property—unbalanced case (Johannessen 1998). We will see that despite initial appearances, the case facts are compatible with a symmetric syntax, depending on the theory of case adopted. Moreover, evidence which unequivocally supports structural asymmetry is difficult to find.

The remainder of the paper is organized as follows. In the next section, I present the unbalanced case facts with a particular focus on previously overlooked data from BCS. I also establish that these data constitute a genuine asymmetry, contrary to a recent generalization on Symmetry of Case in Conjunction (Weisser 2020). Despite the asymmetry in the realization of case, section 2 shows that other purported evidence for an asymmetric syntax (agreement, binding) is either derivable under a symmetric theory or cannot tease apart the two approaches. Section 3 outlines the proposed analysis; structural symmetry can be maintained if it is paired with a postsyntactic theory of case concord and an adjacency condition on case realization. Section 4 concludes with a reflection on syntactic asymmetry in light of the data, as well as considerations for future work.

**2. Case distribution in BCS coordinate structures**. As shown in (7), BCS typically displays *balanced case* in coordination, where all conjuncts realize the same case. This pattern holds across both structural case contexts (7a) and lexical case contexts (7b).[1]

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[1] For the purposes of this paper, it is not necessary to distinguish between *lexical case* and *inherent case*, but see Woolford (2006) for further discussion.

(7)  a.  Upoznala je        {šef-a          i    radnic-u        / radnic-u i šef-a}.
         met        AUX.3SG  manager-ACC  and  worker-ACC
         'She met {a manager and a worker / a worker and a manager}.'
     b.  Odmogla je         {šef-u          i    radnic-i        / radnic-i i šef-u}.
         hindered  AUX.3SG  manager-DAT  and  worker-DAT
         'She hindered {a manager and a worker / a worker and a manager}.'

In isolation, examples like (7) are not particularly interesting. The conjuncts are commutative, and case is evenly distributed. Descriptively, these examples appear to display symmetric behavior. However, we will see that examples such as those in (7) contrast sharply with examples in which one of the conjuncts contains a numeral construction. Numeral examples display *unbalanced case*, where case is not evenly distributed among conjuncts. What's more, lexical case environments reveal certain restrictions on the ordering of conjuncts. Before delving into these patterns, the next section provides a brief overview of numerals in BCS.

2.1. A PRIMER ON BCS HIGHER NUMERALS. As is common in other Slavic languages, BCS numerals fall into several classes. For the purposes of this paper, I focus on the higher numerals, consisting of 'five' and above. Slavic higher numerals license the 'genitive of quantification' or genitive plural on their complements, and the resulting patterns of both nominal and clausal agreement have been subject to much discussion in the literature (see Babby 1987; Franks 1995; Boskovic 2006; Ionin & Matushansky 2018; Lyskawa 2020, among others). In structural case environments, the genitive of quantification takes precedence over the structural case licensed on the numeral construction. This is illustrated in (8) with BCS, where *upoznati* would normally take an accusative complement.

(8)  BCS
     Upoznala je         pet  iskusn-ih             radnica.
     met        AUX.3SG  five experienced-GEN.PL  worker.GEN.PL
     'She met five experienced workers.'

In lexical case environments, however, BCS is unique compared to other Slavic languages, which is likely due to the indeclinability of BCS higher numerals. Whereas in most Slavic languages, the entire numeral construction realizes the lexical case, in BCS neither the pattern in (8) nor a declined version is possible, as illustrated in (9) with a dative-case-assigning verb; the result is simply ineffable (Zlatić 1997; Wechsler & Zlatić 2003; Bošković 2006, among others).[2]

(9)  a.  *Odmogla je         pet  iskusn-ih             radnica.
          hindered  AUX.3SG  five experienced-GEN.PL  worker.GEN.PL
          'She hindered five experienced workers.'
     b.  *Odmogla je         pet  iskusn-im             radnic-ama.
          hindered  AUX.3SG  five experienced-DAT.PL  worker-DAT.PL
          'She hindered five experienced workers.'

This contrast between numeral constructions in structural case environments versus lexical case environments constitutes the focus of this paper. In the next section, we will see that the case

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[2] Speakers utilize a variety of strategies to express the example in (9). A common strategy is to separate the numeral construction from the lexical-case-assigning verb: *She hindered some workers. There were five of them.* In some instances, a declinable collective numeral can be used. However, there are several classes of collectives, and each is associated with certain semantics, so they are not always appropriate (see Lučić 2015). Many speakers also consider certain forms of the collectives to be archaic.

environment imposes certain ordering constraints within coordinate structures when one of the conjuncts contains a higher numeral construction.

2.2. APPARENT CASE ASYMMETRIES IN COORDINATION. For numeral-containing coordinate structures in structural case environments, the commutativity of conjuncts is preserved (albeit with slight differences in meaning for some speakers). As expected given the examples in the previous section, the conjunct containing the higher numeral realizes the genitive of quantification. This pattern is illustrated in (10).

(10)  a.  Upoznala  je       jedn-og  šef-a        i    pet   radnica.
          met       AUX.3SG  one-ACC  manager-ACC  and  five  worker.GEN.PL
          'She met one manager and five workers.'
      b.  Upoznala  je       pet   radnica          i    jedn-og  šef-a.
          met       AUX.3SG  five  worker.GEN.PL    and  one-ACC  manager-ACC
          'She met five workers and one manager.'

As demonstrated in the previous section, higher numeral constructions are considered ungrammatical in lexical case environments. Interestingly, however, this ungrammaticality is partly mitigated in coordinated examples—as long as the first conjunct is declinable, the example is considered acceptable. When the higher numeral construction occurs in the first conjunct, the example is considered ungrammatical. Note that while some of my consultants consider (11a) degraded compared to its structural case counterpart in (10a), they all report a definite contrast between (11a) and (11b), the latter of which is completely ruled out.[3]

(11)  a.  ?Odmogla  je       jedn-om  šef-u        i    pet   radnica.
           hindered  AUX.3SG  one-DAT  manager-DAT  and  five  worker.GEN.PL
           'She hindered one manager and five workers.'
      b.  *Odmogla  je       pet   radnica          i    jedn-om  šef-u.
           hindered  AUX.3SG  five  worker.GEN.PL    and  one-DAT  manager-DAT
           'She hindered five workers and one manager.'

My consultants also reported similar judgments for examples containing three conjuncts. As above, the declinability of the first conjunct determines the grammaticality of the whole example.

(12)  ?Odmogla  je       jedn-om  šef-u,        pet   radnica,
        hindered  AUX.3SG  one-DAT  manager-DAT  five  worker.GEN.PL
        i    šest  klijen-a-ta.
        and  six   client-PL-GEN
        'She hindered one manager, five workers, and six clients.'

At this point, it is necessary to consider the characterization of these case patterns. There are two possibilities: (i) a *closest-conjunct effect*, where the acceptability of the example depends on the ability of the conjunct closest to the case licenser to realize the relevant case; or (ii) a *first-conjunct effect*, where the first (leftmost) conjunct in a coordinate structure must realize the

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[3] Due to space constraints, I restrict the discussion of lexical case in this paper to dative examples. Higher numeral constructions are grammatical in genitive case contexts, so such examples display the same pattern as (10). Instrumental case examples display a pattern similar to dative, but unlike in dative contexts, higher numeral conjuncts can be repaired by inserting the instrumental preposition *s(a)* 'with' (see Bošković 2006).

relevant case. The flexible word order of BCS allows us to tease apart these two possibilities, and the examples below reveal that we in fact have a first-conjunct effect.

(13) a. ?Jedn-om šef-u i pet radnica je Marija odmogla.
    **one-DAT manager-DAT** and five worker.GEN.PL AUX.3SG Marija hindered
    'Marija hindered one manager and five workers.'

   b. *Pet radnica i jedn-om šef-u je Marija odmogla.
    **five worker.GEN.PL** and one-DAT manager-DAT AUX.3SG Marija hindered
    'Marija hindered five workers and one manager.'

(14) a. ?Marija je jedno-m šef-u i pet radnica odmogla.
    Marija AUX.3SG **one-DAT manager-DAT** and five worker.GEN.PL hindered
    'Marija hindered one manager and five workers.'

   b. *Marija je pet radnica i jedno-m šef-u odmogla.
    Marija AUX.3SG **five worker.GEN.PL** and one-DAT manager-DAT hindered
    'Marija hindered five workers and one manager.'

In (13) the coordinate structure occurs in preverbal position, and (13a) with the declinable first conjunct is better than (13b). Similarly in (14), where the coordinate structure occurs in medial position between the auxiliary and main verb, (14a) is better than (14b). Note that the examples in (11) with the postverbal coordinate phrase are the most information-structurally neutral—I therefore assume in the subsequent analysis that the coordinate phrases in (13) and (14) have undergone Ā-movement.

2.3. VERIFYING CASE ASYMMETRIES. While the data seem to indicate case asymmetry—one conjunct realizes the case licensed by the external context, and the other realizes the genitive of quantification—it is important to verify that this is a genuine asymmetry before proceeding further with the analysis. Weisser (2020: 43) proposes a generalization on the Symmetry of Case in Conjunction which states that case is always evenly distributed in nominal conjunction (though see Przepiórkowski 2022 for discussion of counterexamples). Any apparent instances of case asymmetry can be explained away via certain morphological operations, such as allomorphy, or properties of affixation. For example, Estonian in (15a) appears to display a case asymmetry in that one conjunct realizes genitive, while the other realizes terminative. However, the addition of the genitive modifier to the second conjunct in (15b) indicates that the asymmetric terminative case is in fact cliticized to the coordinate structure as a whole.

(15) Estonian (Weisser 2020: 46)
   a. Ta jook-sis jõe ja puu-ni.
    3SG run-3SG river.GEN and tree-TERM
    'He went to the river and the tree.'

   b. Ta jook-sis [jõe ja suu-re puu]-ni.
    3SG run-3SG river.GEN and big-GEN tree.GEN-TERM
    'He went to the river and the big tree.'

We can run a similar test on the BCS data. There are no relevant syncretisms that would make an allomorphy analysis plausible, and (16) shows that both conjuncts can be modified by unambiguously dative and genitive modifiers (see Przepiórkowski 2022 for similar arguments based on Polish).

(16)  BCS
    ?Odmogla  je          jedn-om  nov-om    šef-u
    hindered  AUX.3SG  one-DAT  new-DAT  manager-DAT
    i     t-ih            pet  iskusn-ih            radnica.
    and  those-GEN.PL  five  experienced-GEN.PL  worker.GEN.PL
    'She hindered one new manager and those five experienced workers.'

While (16) indicates a case asymmetry, the generalization on Symmetry of Case in Conjunction applies specifically to nominal coordination. To show that the BCS examples constitute a genuine exception to the generalization, we must therefore rule out the possibility that they are in fact derived via clausal coordination plus ellipsis (conjunction reduction). Following the argumentation in Przepiórkowski 2022, the possibility of adding a modifier such as *istovremeno* in (17) shows that a conjunction reduction analysis is not plausible (see also Borsley 2005). The input to (17a) would be (17b), which is considerably degraded by comparison, due to both the meaning, and the interaction between the higher numeral construction and dative-case-assigning verb.

(17)  a.  ?Marija  je          istovremeno      odmogla  jedn-om  šef-u
            Marija  AUX.3SG  simultaneously  hindered  one-DAT  manager-DAT
            i     pet  radnica.
            and  five  worker.GEN.PL
            'Marija hindered one manager and five workers at the same time.'

      b.  ??/*Marija  je          istovremeno      odmogla  jedn-om  šef-u
            Marija  AUX.3SG  simultaneously  hindered  one-DAT  manager-DAT
            i     Marija  je          istovremeno      odmogla  pet  radnica.
            and  Marija  AUX.3SG  simultaneously  hindered  five  worker.GEN.PL
            'Marija simultaneously hindered one manager, and Marija simultaneously hindered five workers.'

The BCS examples therefore constitute true case asymmetries in nominal coordination. Before proceeding through the analysis, the next section discusses other potentially asymmetric properties of coordination.

2.4. IN SEARCH OF ADDITIONAL EVIDENCE FOR SYNTACTIC (A)SYMMETRY. This paper initially set out to determine whether theories that argue for a symmetric syntax of coordination, which have gained traction in recent literature, can capture asymmetries in case realization. While this goal is partly curiosity-based, it is worth considering whether any additional data can tease apart the asymmetric and symmetric theories.

    The majority of BCS examples do display symmetry in case realization, where all conjuncts realize the same case. Only the higher numeral examples introduce a case asymmetry. Nonetheless, even in structural case examples with a higher numeral construction, the conjuncts are not subject to any ordering restrictions. Therefore, the only major case asymmetry is found with the first-conjunct effect from higher numeral constructions in lexical case contexts. Since they arise only in a small subset of contexts, the case asymmetries do not seem to provide resounding support for structural asymmetry.

    As discussed in section 1, other examples commonly cited in support of structural asymmetry can be found in agreement. For example, Willer-Gold et al. (2016) show that BCS can display closest-conjunct agreement, default agreement, or distant-conjunct agreement, as illustrated in (18). In closest-conjunct agreement, as in (18a), the predicate agrees with the conjunct linearly closest to it, which could be the last or the first conjunct depending on whether the

coordinate structure is in preverbal or postverbal position. Default agreement occurs in (18b), where the verb realizes M.PL despite the F.PL and N.PL features of the conjuncts. Finally, distant-conjunct agreement in (18c), which is more common in preverbal than in postverbal position, occurs when the predicate agrees with the furthest conjunct.

(18)  adapted from Willer-Gold et al. 2016: 190
    a.  Trub-e       i    zvon-a    su     se    oglasi-le.
        trumpet-F.PL  and  bell-N.PL  AUX.3PL  REFL  sounded-F.PL
    b.  Trub-e       i    zvon-a    su     se    oglasi-li.
        trumpet-F.PL  and  bell-N.PL  AUX.3PL  REFL  sounded-M.PL
    c.  Trub-e       i    zvon-a    su     se    oglasi-la.
        trumpet-F.PL  and  bell-N.PL  AUX.3PL  REFL  sounded-N.PL
        'Trumpets and bells resounded.'

While examples like those in (18) do constitute asymmetries in agreement, they do not necessarily require an asymmetric syntax, as pointed out in Neeleman et al. 2023 (pp. 62–63). Closest-conjunct agreement can be attributed to a postsyntactic condition on linearity. In default agreement, no conjunct's features take precedence over the others, so this pattern also does not require syntactic asymmetry. Distant-conjunct agreement is perhaps the most difficult to account for under a symmetric syntax, but given data from Slovenian, Neeleman et al. 2023 argues that such examples are accompanied by certain interpretive qualities that may not require an asymmetric syntax. While more research is certainly needed, preliminary work suggests this may also be on the right track for BCS. Thus, in the absence of additional data to the contrary, agreement asymmetries do not seem to necessitate structural asymmetry.

      Other evidence often cited in support of structural asymmetry comes from binding, particularly the bound-variable reading available in examples like (2). However, as Progovac (2003) points out, such examples require only that the quantifier c-commands the pronoun at LF, which can be achieved through Quantifier Raising (May 1977), so this alone is not evidence for structural asymmetry among conjuncts. What, then, of other binding relations which are predicated on c-command? As it turns out, the results are inconclusive.

      Let us first consider Condition A, which requires a reflexive to be locally bound. Example (19a) shows the typical use of the subject-oriented possessive reflexive *svoj* in BCS. This reflexive is preferred over a regular possessive in (19a) but is disallowed in examples like (19b). Earlier literature interpreted examples like (19b) as a Condition A violation. Since the reflexive *svoj* cannot be bound, it was argued that the first conjunct does not c-command the second.

(19)  a.  Elma$_i$ je      pozvala {svoj-u$_i$  /?njen-u$_i$}  sestr-u    na zabavu.
        Elma  AUX.3SG  invited    REFL-ACC  /her-ACC  sister-ACC  to  party
        'Elma$_i$ invited her$_i$ sister to the party.'
    b.  Elma$_i$ i {*svoj-a$_i$    /njen-a$_i$}  sestra      idete na zabavu.
        Elma  and  REFL-NOM  /her-NOM  sister.NOM  go    to  party
        'Elma$_i$ and her$_i$ sister are going to the party.'

However, the unacceptability of the reflexive in (19b) could also be attributed to factors other than a lack of c-command (see Progovac 2003). For example, issues may stem from the fact that

the reflexive is subject-oriented and yet contained within the subject.[4] These data therefore do not seem to tease apart structural asymmetry and structural symmetry; they are inconclusive at best.

A closer look at Condition C effects is similarly inconclusive. The apparent lack of a Condition C violation in examples like (20a) as compared to (20b) could be interpreted as indicating a lack of c-command among conjuncts.

(20)  a.  ?Sigurna sam  da  Marko i  Mark-ova   žena   idu na zabavu.
          sure    am   that Marko and Marko-POSS.NOM wife.NOM go to party
          'I'm sure that Marko and Marko's wife are going to the party.'
      b.  *Sigurna sam  da  Marko voli Mark-ovu   žen-u.
          sure    am   that Marko loves Marko-POSS.ACC wife-ACC
          'I'm sure that Marko loves Marko's wife.'

Based on similar examples from English, however, Progovac (2003) argues that the ungrammaticality of (20b) is more likely due to pragmatics rather than a Condition C violation.[5] Nonetheless, this section has shown that it is not unreasonable to investigate the BCS case asymmetries from the perspective of a symmetric theory of coordination. Other data such as agreement or binding, which could potentially adjudicate between structural asymmetry and structural symmetry in coordination, are not conclusive.

**3. Deriving case asymmetries from syntactic symmetry**. This section outlines the proposed analysis of the BCS case asymmetries under a symmetric syntax. Before proceeding through derivations in both structural and lexical case environments, the next section provides a brief overview of coordination as mutual adjunction, which will form the basis of the analysis.

3.1. COORDINATION AS MUTUAL ADJUNCTION. The analysis of coordination as mutual adjunction has been adopted in the literature that posits a symmetric syntax of coordinate structures. I will follow the analysis most recently adopted in Neeleman et al. 2023, which makes use of multisegmented structures (for earlier proposals, see Cormack & Smith 2005; Philip 2012). For a comparison of coordination with regular examples of structure building, consider the structures below (adapted from Neeleman et al. 2023: 55).

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[4] The inclusion of *svoj* in the subject does seem to be a likely cause of its ungrammaticality in (19b). More specifically, the ungrammaticality cannot be that *svoj* lacks a nominative form since examples such as *Budi svoj* ('be yourself') are possible. Moreover, *svoj* can occur in a coordinated object, as shown in (i).

(i)  Vidjela sam     Mark-a    i   svoj-u    sestr-u.
     saw     AUX.1SG Marko-ACC and REFL-ACC sister-ACC
     'I saw Marko and my sister.'

[5] In an analysis of the complexities of BCS binding, Despić 2013 argues that R-expressions in BCS are subject to a different version of Condition C (Lasnik 1989), along with a competitive mechanism (Safir 2004) to regulate their distribution. However, it is not clear that these modifications are enough to explain the contrast in (20). In particular, Lasnik's version of Condition C states that R-expressions must be pronoun-free. In this sense, (20a) and (20b) should be equally acceptable. Simplifying slightly, Safir's competitive mechanism then requires that the most dependent form in the hierarchy *reflexive < pronoun < R-expression* be inserted into a position c-commanded by some category *x* if the form is to be coindexed with *x*. The ungrammaticality of (20b) could then be attributed to the fact that an R-expression was inserted rather than a possessive pronoun, in violation of the hierarchy. (20a), however, should be equally unacceptable, unless we assume a lack of c-command among conjuncts. Pursuing this analysis, however, it would then be difficult to explain the ungrammaticality BCS speakers report for *I'm sure that he$_i$ and Marko$_i$'s wife are going to the party.*

(21)  a.



*Complementation,*
*Specification*

  b.



*Adjunction*

  c.



*Coordination*
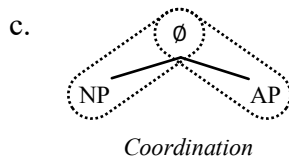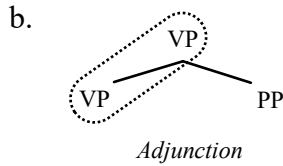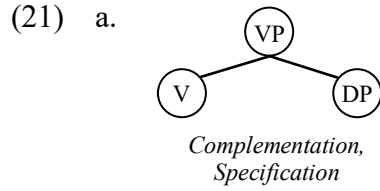
The structure in (21a) is a complementation or specification structure that is composed of three distinct categories. (21b) depicts a regular adjunction structure, with two VP segments of the VP-VP category, and PP as a distinct category. Finally, (21c) depicts the mutual adjunction structure for coordination, where the top node is a segment shared by multiple categories, namely Ø-NP and Ø-AP. Note that this structure allows for the coordination of unlike categories—the top node is considered to contain a subset of properties of each of the conjuncts.

For a typical, non-numeral BCS example, I assume the basic structure in (22).[6] Because of the multisegmented nature of the structure, anything licensed on the top node of the coordinate structure will also be distributed to each conjunct. The typical balanced case patterns of BCS, as shown earlier in (7), thus follow automatically.

(22)
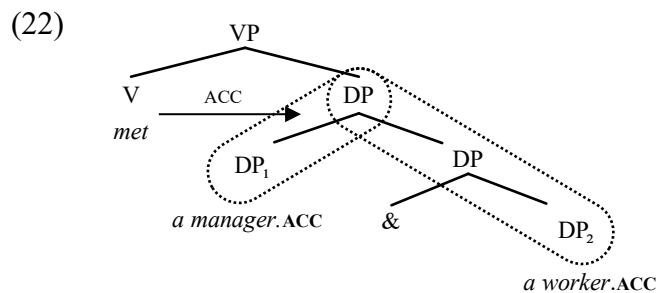


While the structure in (22) is binary branching, there is no syntactic asymmetry among conjuncts. In particular, $DP_1$ does not c-command $DP_2$. The literature that posits segmented structures makes use of a revised version of c-command (see e.g., May 1985; Chomsky 1986; Kayne 1994), such as (23):

(23)  A category α c-commands a category β iff (i) no segment of α dominates β and (ii) the first node that dominates α also dominates β (Neeleman et al. 2023: 60).

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[6] While I have assumed a DP projection in (22) for convenience, this paper takes no stance on the NP/DP debate in BCS. For relevant discussion, see Bošković 2008.

Since the top segment is shared by both conjuncts, (22) violates part (i) of this definition, so there is no c-command among the conjuncts.
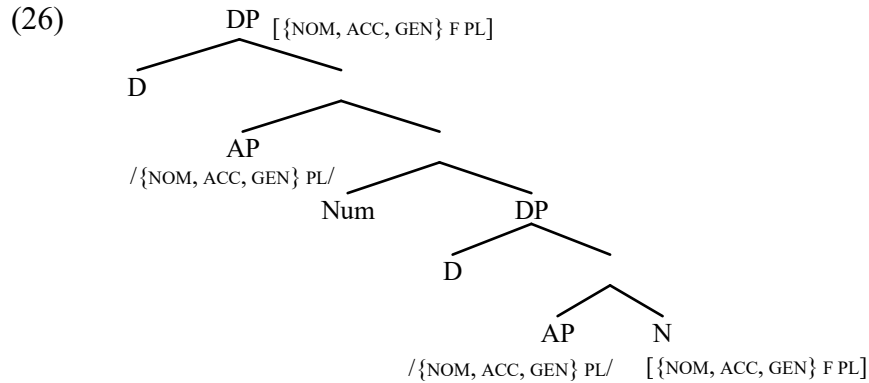
3.2. CASE ASYMMETRIES IN STRUCTURAL CASE CONTEXTS. The balanced case facts are easily captured under the mutual adjunction analysis of coordination, but let us now investigate examples like (10), where numeral constructions give rise to case asymmetries. Assuming the verb licenses accusative on its complement—the coordinate phrase—we can further assume that accusative is licensed on both conjuncts because of the mutual adjunction structure in (24). Just as we saw with the balanced case example in (22), anything licensed on the coordinate structure is licensed on the individual conjuncts. What remains to be explained, then, is why genitive rather than accusative is realized on the conjunct containing the higher numeral.
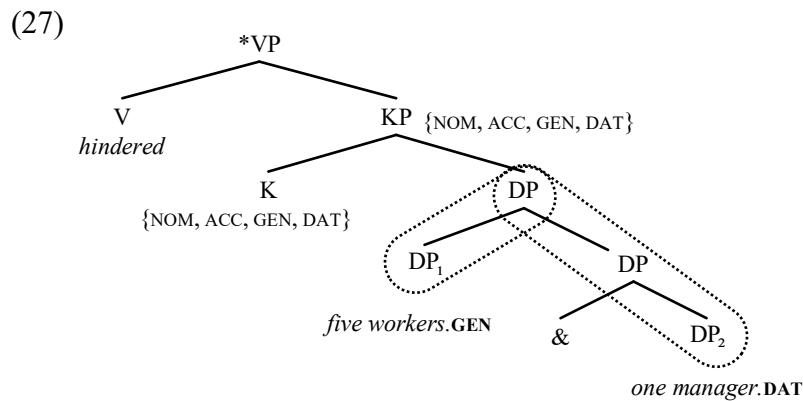
(24)
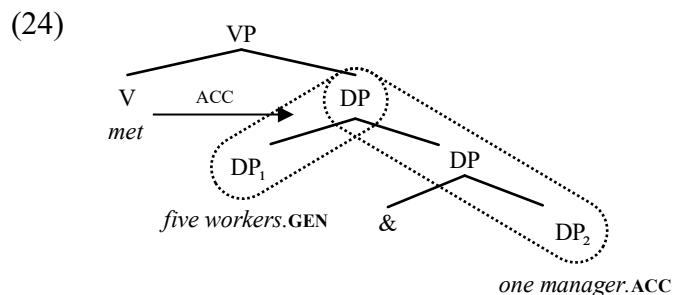


To explain the case patterns, I adopt Grabovac 2022a's analysis of concord in numeral constructions. In this analysis, numeral constructions are composed of two extended projections, and concord consists of feature percolation in the syntax, followed by the postsyntactic realization of features from dominating nodes on available terminals (see also Norris 2014; Ackema & Neeleman 2020). Proceeding through the derivation, the numeral in (25) licenses genitive on its complement (see e.g., Bošković 2006, Franks 1995; Ionin & Matushansky 2018). The genitive features percolate upward into the higher domain and override the set of accusative features on the topmost node. This part of the analysis relies on a decompositional view of case (Caha 2009; Grabovac 2022b); since accusative, represented as {NOM, ACC} is contained within genitive {NOM, ACC, GEN}, genitive case can override accusative.

(25)
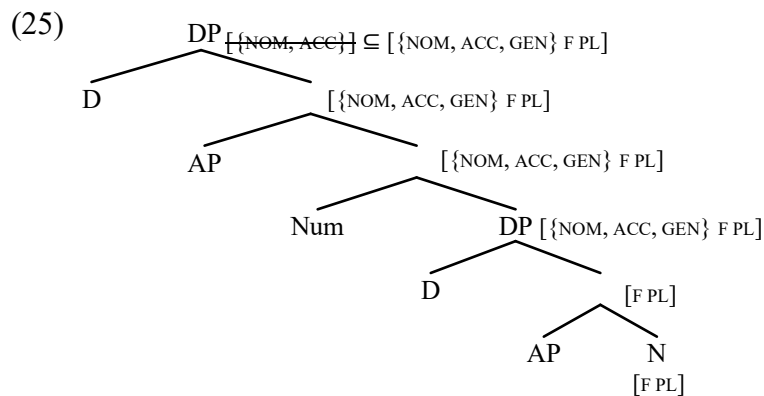


In the postsyntactic mapping, features from dominating nodes are realized on local terminals (the featural content of intermediate nodes has been disregarded here only for convenience). This results in GEN.PL throughout the numeral construction. Thus, even though accusative is initially licensed on the numeral-containing conjunct, genitive is ultimately realized.

(26)

DP [{NOM, ACC, GEN} F PL]
- D
- AP /{NOM, ACC, GEN} PL/
  - Num
  - DP
    - D
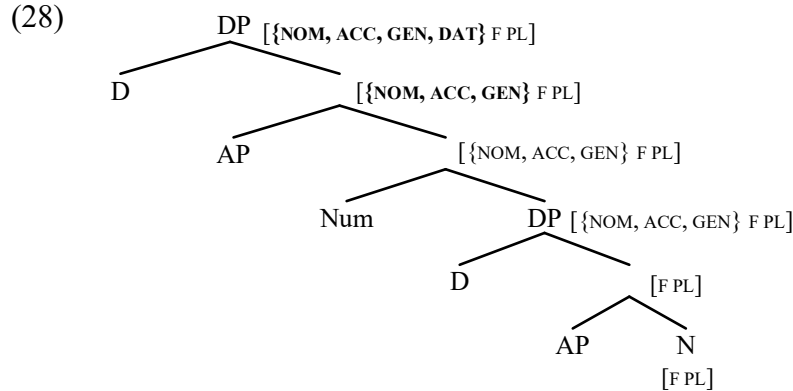    - AP /{NOM, ACC, GEN} PL/   N [{NOM, ACC, GEN} F PL]

3.3. FIRST-CONJUNCT EFFECTS IN LEXICAL CASE CONTEXTS. The main puzzle is, of course, how to accommodate the first-conjunct effects in (11)–(14). Since we are working with a symmetric syntax, it is not possible to appeal to structural hierarchy. I therefore make two additional hypotheses: (i) the coordinate structure is selected by K (specified for dative features), and (ii) the features of K must be realized on the linearly adjacent conjunct (see Ostrove 2020).[7] These hypotheses are illustrated in (27).

(27)

*VP
- V *hindered*
- KP {NOM, ACC, GEN, DAT}
  - K {NOM, ACC, GEN, DAT}
  - DP
    - DP$_1$ *five workers.*GEN
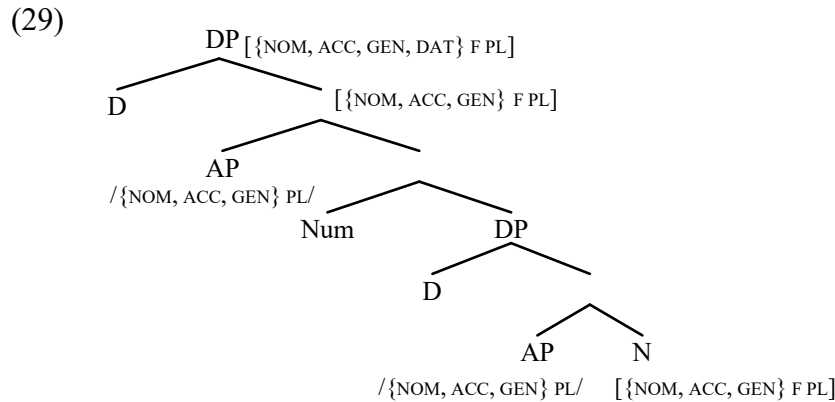    - DP
      - &
      - DP$_2$ *one manager.*DAT

What remains to be explained is why K's features fail to be realized on the first conjunct in (27). Returning to the concord analysis, when features percolate in the syntax, the genitive features licensed by the numeral percolate upward through the higher domain. In contrast to the previous derivation, however, genitive is unable to reach the topmost node of the numeral construction since the dative features there are a superset of genitive.

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[7] No aspect of the analysis requires the categories in (27) to be KP and DP; these have been chosen merely for convenience. In fact, one alternative could be to assume that a PP headed by a null preposition selects the coordinate phrase. At this stage of research, I see no issues with such an analysis. It is worth noting, however, that BCS numeral constructions behave differently in verb-governed lexical case environments compared to preposition-governed environments. Numeral constructions are always considered grammatical as complements of prepositions.

(28)

```
                    DP [{NOM, ACC, GEN, DAT} F PL]
                   /  \
                  D    [{NOM, ACC, GEN} F PL]
                      /  \
                    AP    [{NOM, ACC, GEN} F PL]
                         /  \
                       Num   DP [{NOM, ACC, GEN} F PL]
                            /  \
                           D    [F PL]
                               /  \
                             AP    N
                                  [F PL]
```

Since concord simply spells out the closest set of dominating features on available terminals, genitive rather than dative is realized throughout the construction. There are thus no available terminals to realize dative, and the adjacency requirement is not met in examples such as (27).

(29)

```
                    DP [{NOM, ACC, GEN, DAT} F PL]
                   /  \
                  D    [{NOM, ACC, GEN} F PL]
                      /  \
                    AP     \
          /{NOM, ACC, GEN} PL/  \
                       Num       DP
                                /  \
                               D
                                  /  \
                                AP    N
                   /{NOM, ACC, GEN} PL/  [{NOM, ACC, GEN} F PL]
```

Assuming the entire KP and its complement undergoes Ā-movement, we can also account for examples (13) and (14), where the coordinate phrase does not appear postverbally.[8]

3.4. PREDICTIONS. Some analyses maintain that lexical case involves another projection, such as KP or PP, while structural case does not (see Bittner & Hale 1996; Baker 2015; McFadden 2022, among others). Although I have only introduced KP to accommodate the first-conjunct effects in lexical case examples, as far as I can tell, the analysis would not change drastically if we assume KP is consistently present. For structural case environments where the genitive of quantification takes precedence over structural case on the first conjunct, we could simply assume that the adjacency condition does not apply. Alternatively, it could be that genitive overrules the adjacency condition because it counts as a realization of the structural case features.

Abstracting away from the adjacency condition, the structure in (27) in principle predicts that we should be able to find examples where K itself is realized. This seems to align with, for example, the Estonian data in (15), where we find only a single realization of terminative. The extent to which the adjacency condition is operative in other languages should, however, be

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[8] A simpler analysis could attempt to do away with the added KP in (27). However, the fact that first-conjunct effects arise even when the coordinate structure does not appear postverbally would require us to formulate the adjacency condition in terms of the leftmost conjunct (e.g., *the case licenser's features must be realized on the leftmost conjunct*). This does not seem to have many precedents in the literature, so I have opted for the extra projection, which consistently allows for a requirement on case adjacency.

subject to further investigation, particularly in languages that display ordering constraints among conjuncts. Languages without strict ordering of conjuncts could still be subject to the adjacency condition, but if all conjuncts are declinable, it is difficult to tell whether the adjacency condition has been satisfied or whether it is absent altogether.

**4. Conclusion**. This paper has analyzed an asymmetric property of coordination—unbalanced case in BCS—under a symmetric theory of coordinate structure. While BCS normally displays balanced case in coordination, examples involving higher numeral constructions show the genitive of quantification realized on the quantified conjunct. Higher numeral examples also reveal a first-conjunct effect in lexical case environments, where the acceptability of the example depends on the ability of the first conjunct to realize the case licensed on the coordinate structure. Despite this asymmetric behavior, this paper has shown that the case facts are compatible with a symmetric theory of coordination. Under a mutual adjunction structure, the case patterns follow from the postsyntactic realization of case in concord and a condition on case adjacency.

The main goal of this paper was exploratory—to determine whether it is possible to model case asymmetries with a symmetric syntax. While I have shown that the case facts can be accommodated under a symmetric syntax, one may still wonder whether it would be altogether simpler to assume an asymmetric structure.[9] Although such an analysis would allow us to attribute the first-conjunct effect to structural hierarchy, additional assumptions are still necessary. An asymmetric syntax alone would not predict the observed differences between structural and lexical case environments, nor would it automatically derive the distribution of balanced versus unbalanced case in BCS. At the very least, a theory of case in numeral constructions is required, and depending on the implementation of this theory, potentially a condition that requires case to be realized on the highest conjunct. Overall, it is fair to conclude that coordination remains a complex topic that should be subject to further research. The apparent properties of a coordinate structure may not directly reflect the underlying syntax.

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[9] One area in need of further investigation from the symmetric perspective is the ability to extract the first conjunct in BCS, in apparent violation of the Coordinate Structure Constraint, as shown in (ii) (see also Bošković 2020).

(ii)     adapted from Bošković 2009: 472
  ?Knjige$_i$       je       Marko    [$t_i$ i    filmove]    kupio.
  Book.ACC.PL       AUX3SG    Marko        and   film.ACC.PL    bought
  'Marko bought books and movies.'

A symmetric account of coordination could posit a scattered deletion analysis of (ii), where the whole coordinate phrase moves to sentence-initial position, before distinct parts of each copy are elided. However, this would require certain non-trivial stipulations on the application of ellipsis. I leave this to future work.

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