

Conjunct Constraint is Inviolable

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March 27, 2015

Abstract

I argue against the claim that the Conjunct Constraint (CC) may be violated in so-called comitative coordinates (Zhang 2009). I mainly show that there is nothing such as comitative coordinates and a comitative and a coordinate are totally different constructions. A comitative does not involve a complex DP, while a coordinate does. Thus, extraction of the first DP from a comitative does not violate CC. I conclude that CC which I assume to be a constraint operative at PF, is inviolable, and conjuncts must be pronounced.

1 Introduction

It has been established that extraction out of coordinate complexes is constrained by the coordinate structure constraint (CSC) (Ross 1967: 89).

- (1) “In a coordination structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct.”

Grosu 1981 divides the CSC into two subconstraints: (i) the coordinate constraint (CC) which bans extraction of whole conjuncts (2), and (ii) the element constraint (EC) which bans extracting an element out of a conjunct (3).

- (2) a. *John_i seems to be [__i and Mary] in the room. (Zhang 2010: 4.1a)
c. *Mary_i seems to be [John and __i] in the room. (Zhang 2010: 4.2a)
- (3) a. *What_i kind of herbs did you [[eat_{-i}] and [drink beer]]? (Zhang: 5.1a)
b. *What did Kim [cook₋ and wash the dishes]? (Chaves:(9a))
b. *What did Kim [cook supper and wash _]? (Chaves: (9b))

The focus of this paper is on the Conjunct Constraint (CC). It has long been assumed that the CC is inviolable (Postal 1998). Since recent syntactic trends argue for economy and efficiency of derivation, most recent analyses attempted to eliminate CSC from the grammar and reduced it to more general principle(s) or constraint(s). Some of these analyses attempted to find a purely syntactic explanation (Sag 1982; Pesetsky 1982; Pollard and Sag 1994; Zoerner 1995; Chaves 2012). Other analyses proposed a semantic explanation (Johannessen 1998). Others proposed A syntactic-semantic explanation approaches (Zhang 2009; 2010). In this paper, I will adopt the analysis that has been first proposed in Grosu 1981 and further developed in Munn 1993, Merchant 2001 and Zhang 2010. The analysis argues that CC is not a constraint on movement. Rather, it considers CC a PF constraint that bans dropping a conjunct or leaving it unpronounced.

However, there have been recent claims that CC may be violated in some contexts. These violations can be divided into three types. The first type is in languages in which a lexical item is ambiguous between a coordinator and a comitative marker. For example, Zhang 2010 claims that Chinese *he/gen* coordinators may violate CC if they give both a comitative reading and a non-distributive reading. In (4), Zhang 2010 claims that *houche* is extracted out of the coordi-

nate complex [*gen qiche*] and raised to the subject position. She dubs these constructions *comitative coordinates*.

- (4) Huoche hui [*gen qiche*] xiangzhuang ma?
 train might [*and bus*] collide Q
 ‘Might the train collide with the bus?’(Zhang 2010: 4.81 a : p114)

The second instance of CC violations is when the first conjunct is dropped if it is understood from the contexts or on the basis of previous discourse. In (5), *and* occurs sentence initially with no previous discourse. This case has been considered a violation of the PF constraint. If the first conjunct may be dropped, then CC can be violated. The same applies to (6), where coordination appears to be across speakers.

- (5) [Observing that the toddler started to walk]
 And he is only nine months old!
- (6) Mary: John made to the trivia yesterday.
 Peter: And Jane did too!

The last type of violations is when the first conjunct on the one hand and the coordinator and the second conjunct on the other are not adjacent. Progovac 1999 refers to the coordinator in such constructions as adjunctional *and*. The meaning conveyed here is more like parenthetical or an afterthought. Similar violations have been reported in Sebro-Croatian (Boskovic 2009).

- (7) Jane checked out a novel from the library, and a journal.
- (8) ?Knjigei je Marko [ti i filmove] kupio.
 books is Marko _ and movies bought
 ‘Marko bought books and movies.’ Boskovic 2009: (30)

The bulk of this paper will be dedicated to investigating violations of type one, namely extraction from misanalysed cases of comitatives. I will show that the violations such as the ones claimed by Zhang for “comitative coordinates” above are due to the false correlation between comitative structure and coordinate structure. My claim, contra Zhang, is that comitatives do not involve complex DPs. Thus their structure allows extraction, while coordinates bans leaving a conjunct unpronounced. I will briefly discuss the other two types. In anticipation of the analyses, I will show that the cases above can be explained as a cross-speaker coordination and thus no conjunct drop occurs, or as coordination with a sentence initial coordinator. I assume that this sentence initial coordinators are special discourse markers that do not require a first conjunct to combine with. As for adjunctional *and*, I will assume that what appears to be a violation of CC with parenthetical use of *and* is not a true violation, but is a superficial linear reflex of clausal coordination plus ellipsis. Therefore, there is no violation of CC in these cases.

The paper is organized as follows. Section 2 establishes that CC is not a movement constraint. In Section 3, I argue against the correlation between coordinate structure, complementational structure and comitative structure and propose two possible structures for comitatives. In section 4, I argue against Zhang’s comitative coordinates. Section 5 contains some remarks on CC violations with parenthetical *and* and those in cross-speaker coordination. Section 5 is the conclusion.

2 Conjunct Constraint (CC) is a PF Constraint

In this section I will review evidence that the conjunct constraint is not a constraint on movement that operates at narrow syntax, but a constraint on pronunciation

that operates at PF (Grosu 1981; Munn 1993; Merchant 2001; Zhang 2010). Merchant 2001 argues that CC is a PF constraint, along the lines of the Null Conjunct Constraint (NCC) proposed by Grosu (1981: 56) which states that the conjuncts may not be null. He provides various examples from phenomena that exhibit a ban on deletion at PF in which coordinating a null element and an overt element is barred.

The first example comes from VP ellipsis. In cases of VP ellipsis, it is ungrammatical to coordinate a null VP with an overt VP (Grosu 1973). As pointed out by Merchant, one explanation of the ungrammaticality of sentences such as (9) is that there is a PF constraint that bars eliding conjuncts.

- (9) *I couldn't lift this weight but I know a boy who could [-- and lift crowbar, too]. (Grosu 1973: 1981: ex. 53)

I need to point out that a remark made by Merchant about the example above. A pause before *and* would render the sentence grammatical. These constructions have been referred to as adjunct *and*. To draw a distinction between the two cases, Merchant points out that using *too* or *both* which act as left brackets for the coordinate phrase makes the distinction clear.

- (10) Bob can juggle, and
 b. *Abby can both [-- and sing], too.
 c. *Abby can [sing and --], too.
 d. *Abby can either [--or sing]
 e. *Abby can either [sing or --]

Similar observations are found in Right Node Raising (RNR) as noted by Ross 1967. In many analyses, RNR is analyzed as PF deletion (Wilder 1995; Swingle 1995). The ungrammaticality of (11), then, must be due to a ban on leaving a

conjunct unpronounced.

- (11) * $[$ [Tom is writing an article on Aristotle and $--$], [and Elaine has just published a monograph on Mesmer and $--$] $]$, Fried. (McCawley 1988)

Another argument for the non-movement analysis of CC comes from Greek null subjects. Greek allows null subject (*pro*), but if the subject is a conjunct phrase, one of the conjuncts may not be *pro*. Since clearly no movement occurs here, the ungrammaticality must be due to constraints that operate at PF and not narrow syntax.¹

- (12) $\{Afros/ *pro\}$ kai o Pavlos ine adherfia
he/pro and the Paul are siblings
'He and Paul are siblings.' (Merchant 2001: ex. 103a: p197)

- (13) $\{Esi/ *pro\}$ kai o pavlos iste adherfia
you.sg/pro and the Paul are siblings
'You and Paul are siblings.' (Merchant 2001: ex. 103b: p197)

¹There are cases where it appears that an overt conjunct is coordinated with a null element. This is in verb coded coordination on which the first conjunct appears as an agreement morpheme on the verb while the second conjunct is an overt full fledged DP as in Bulgarian and Dakota sentences below (Schwarz 1988; Bruening 2005).

Bulgarian

- (i) Otidohme s majka mi na paza
went.1P and mother my to market
'My mother and I went to the market.' (Bruening 2005: p1: ex. 3)

Dakota

- (ii) Niye kići Tim oũkiyakte.
2S and T. helpt.3S/12.Fut
'Time will help you and me.' (Bruening 2005: p1: ex. 4)

An argument which I wish to add comes from pied-piping. Pied-piping is said to get around island violations. So if the pied-piped constituent is a coordinate or contains a coordinate that contains a wh-conjunct, and the sentence is still ungrammatical, then that is a strong evidence that CC is a PF constraint since no movement of wh-conjunct occurs. This prediction is borne out in (14) in which the pied-piped NP that contains a wh-conjunct, but the sentence is ungrammatical. The prediction is also borne out in (15).

- (14) a. This book [NP the first chapter of which] is full of lies.
 b. *Which the first first chapter of _ is full of lies?
- (15) a. *[The man who and you] they were going to kill _ together?
 b. *You & who were they going to kill _ together?
 c. * Who and who did the studio want to cast together in that movie?

Before I end this section I wish to point out two arguments advanced in Merchant which I believe that they do not argue for the PF status of CC. The first argument comes from the ungrammaticality of sentences such as (16) where all conjuncts are ATB moved. Merchant 2001 claims that Since ATB movement is in principle allowed, the ungrammaticality of (16) must be derived from non-syntactic principles, that is PF constraints.

- (16) a. */#Which books did Bob read [- and -]?
 b. I wonder who she saw both [- and a picture of -].
 c. *I wonder who you saw [[a picture of -]and -]. (Adapted from Merchant 2001: ex. 106: p198)

However, the examples above does not really constitute a valid argument because the ungrammaticality of the sentences could be due to their semantic ill-

formedness. If we assume that the ATB-moved constituent is in construction with the gaps or bind both gaps, it is semantically ill-formed to coordinate the same constituent. For instance, (16a) is (17) before extraction. The sentence is semantically ill-formed if both wh-phrases have the same identity. But, with a *respectively* reading in which Bob read two different sets of books, the sentence is well-formed.

(17) #Bob read which books and which books.

Another argument Merchant proposes which I believe equally argues for a movement and a non-movement analysis is resumption. Merchant claims that resumption can ameliorate the effects of CC as is the case in English (Merchant 2001; Pestersky 1998a), on the basis of the assumption that resumption fixes PF violations. In (18a), the pronoun *him* that is co-indexed with the extracted conjunct *the guy* makes the sentence acceptable.

(18) a. That's the guy₂, that they were going to kill [you and him]₂ together.
 b. Which wine₃ would you never serve it₃ and sushi together? (Pestersky 1998a:366 n. 28)

The same applies to the Arabic. In (19) in which the first conjunct is extracted from the complement of the preposition *maʕ* 'with'. Using the pronoun *-u* 'him' makes the sentence grammatical.

(19) miin_i Muna haka-t maʕ -ah_i/*∅ w Omar mbarih?
 who_i M call-3sg.f with -him_i/*∅ and Omar yesterday?
 'Who did call him and Omar yesterday?' (Jordanian Arabic)

I do not think that this constitutes a strong argument. Resumption is a strategy that ameliorates movement violations as well. For instance in (20), the island violation can be fixed by inserting the resumptive pronoun *him*.

(20) Who did Mary said the man who lives downstairs killed *_/him?

To wrap up, there is strong evidence against the analysis that CC is a movement constraint and for the analysis that it is one that is operative at PF. Therefore, CC is a constraint on deletion not movement.

3 Comitatives vs Coordinates

Before I present my argument against the claim that the first conjunct may be extracted out of the coordinate phrase if it has a comitative reading, it is essential to draw a distinction between comitative and coordinate constructions. This distinction becomes crucial in languages that encode coordinates and comitatives using the same lexical item. In English, comitative phrases involve the preposition *with* (Lackoff & Peters 1966; Kyne 1994; Stolz 2001; Zhang 2007). In other languages like Arabic, the same lexical item, namely *w* ‘and/with’ can function as a coordinator (22) or a comitative marker (23) (a preposition).

(21) John (together) with Mary travelled to Thailand.

(22) Laila safar-at w abu-ha ?ila almaghrib
Laila travel=3sg.fem and.com father=3sg.fem to Morocco
‘Laila traveled with her father to Morocco.’ Modern Standard Arabic ,
(Comitative)

(23) ?uhibu al-safar ?ila almaghrib w aljazaer
love.1sg the-travelling to Morocco and Algeria
‘I love travelling to Morocco and Algeria.’ Modern Standard Arabic (Co-
ordination)

I will discuss the diagnostics of a comitative in terms of movement, intervention, meaning and iterativity. Then I will discuss the issue of structure. Throughout

the discussion, I will refer to the DP that precedes the comitative marker as DP1 and the DP that follows the comitative marker as DP2.

It has been claimed that in some comitatives it is possible to raise DP1 out of the comitative complex (24) (Zhang 2007; Kayne 1994). Contrastively, raising the first conjunct from the coordinate phrase is impossible in English as it constitutes a violation of the CSC (25).

- (24) a. I ate pasta with salsa.
b. Pasta tastes good with salsa.
- (25) a. I ate pasta and meat balls.
b. *Pasta tastes good [_and meatballs].
- (26) *John is likely to travel to Thailand [-- and Mary].

I should note that (25b) can be grammatical with a long pause before *and* and with emphasis on *and meatballs*. In this case, the coordinator and what follows is might be analyzed as a remnant of ellipsis with clausal coordination.

- (27) I ate pasta and [IP I ate meatballs].

Additionally, a comitative marker+DP2 is generally mobile, so they may topicalize and move. A coordinator and the conjunct to its right may not (Zhang 2007). In (28), the comitative PP *with which drink* can be wh-moved. In (29) it is illicit to topicalize *And Thailand*.

- (28) a. [With which drink] did you mix the water__?
b. [Together with her best friend], Mary__ traveled to Italy.
- (29) *[And Thailand], Mary traveled to Taiwan __ .

An additional distinction between a comitative and coordinate is that in comitatives, *together* may intervene between DP1 and DP2, while this is not possible in coordinates (Zhang 2007). The same facts hold for Jordanian Arabic. *sawa* ‘together’ may not intervene between DP1 and the comitative+DP2 in the coordinate reading with *w*.

- (30) a. A mother together with her son attended John’s talk.
 b. A mother (*together) and her two kids came.

- (31) Ali sawa w Muhammad safar-u almaghrib.
 A together and M travel-3pl.mas Morocco

- (32) *ishtarit-it ktaab sawa w majalleh min al-maktabeh.
 buy-1sg book together and magazine from the-bookshop

Furthermore, comitatives appear to involve only two DPs. Iterativity of the comitative marker+DP2 is impossible. Contrastively, a coordination+conjunct may iterate freely. However, (33) can be grammatical if we assume that pasta with meatballs forms a DP to which with salsa is adjoined. Changing the order of the DPs will change the meaning though. [*pasta with meatballs*] *with salsa* is not equivalent to [*salsa with meatballs*] *with pasta*, for instance. Nominal coordination allows changing of order without affecting meaning.

- (33) #I ate pasta with meatballs with salsa.

- (34) I ate pasta and meatballs and salsa.

A comitative involves two participants, while coordination may involve an infinite number of participants. Comitatives convey meanings such as togetherness, accompaniment and assistantship. On the other hand, DPs in a coordinate are usually semantically equivalent or equally important in the eventuality described. To clarify this distinction, in (35) which involves a coordination of *a car* and *two*

trucks, two interpretations are possible. The first is that the collision is two-way collision. One scenario is to have a car and two trucks moving side by side collide. The second is that the collision is three-way. We can imagine the car, one truck, and a second truck coming from different directions. On the other hand, in (36), which involves a comitative, the only possible interpretation is for the collision to be two-way with the car moving and two parked trucks. Therefore, comitatives and coordinates appear to be different at both syntactic and semantic levels.

(35) A car and two trucks collided.

(36) A car collided with two trucks.

Turning to the issue of structure, I will build on the three-way categorization of comitatives highlighted in Yamada 2010, and propose that those three types have two distinct syntactic structures. Then I will rule out two comitative structures proposed in the literature, namely complementation structure (Kayne 1994; Zhang 2007) and adjunctional structure (Zhang 2007).

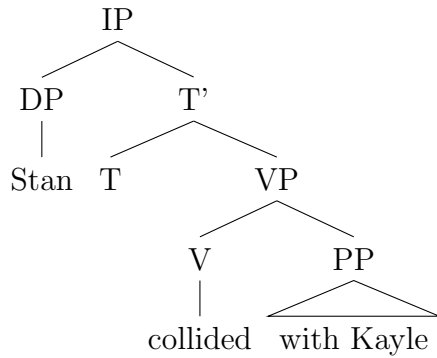
Yamada points out that there are three types of comitatives as exemplified in (14). I will assume that in (37a) the comitative PP *with-Kyle* is an argument. The verb *collide* requires this phrase as complement, so with-phrase is a part of the selectional restrictions of the verb. On the basis of this assumption, I propose that the structure (38) for (37a). For comitatives as in (37b) and (37c), I will assume that PP *with+DP* functions as a VP adjunct that modifies the verb. The PP is optional and does not hold a thematic relation with the verb. I illustrate the structures of (37b) and (37c) in (39).

(37) a. Stan collided with Kyle.

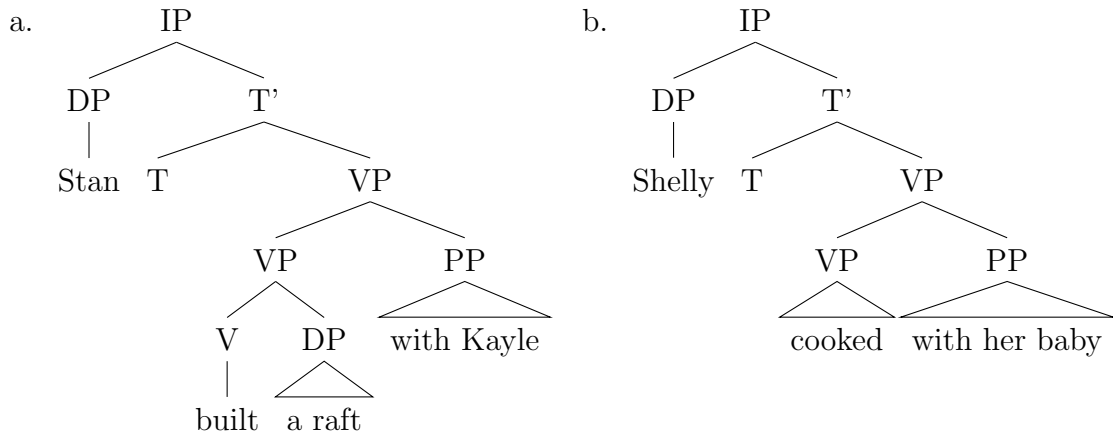
b. Stan built a raft with Kyle

c. Shelly cooked with her baby (Yamada 2010: p. 126: ex. 177)

(38)



(39)



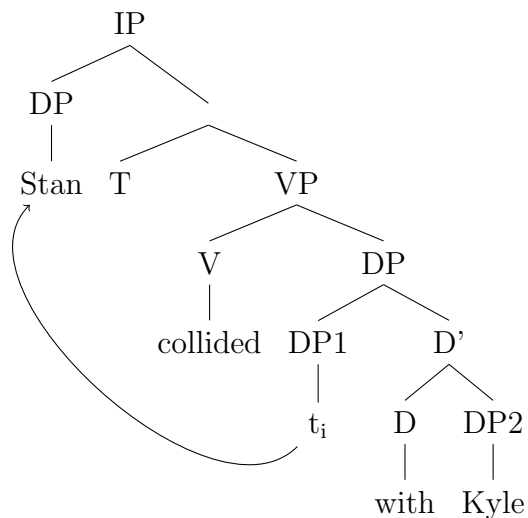
We now have two possible structures for comitative. One in which the comitative PP is an argument, and one in which it is a VP adjunct. Therefore, I propose that DP1 and DP2 are not base generated in a complex DP.

There have been analyses that consider the DP *Stan* in (37a) to be base generated in a complex phrase, and thus relate this sentence to (40) in that the verb requires a plural subject. One analysis assigns a complementation structure to

the comitative (Kayne 1994, Zhang 2007), and assumes that DP moves out of this complex DP.

(40) Stan and Kyle collided.

(41)



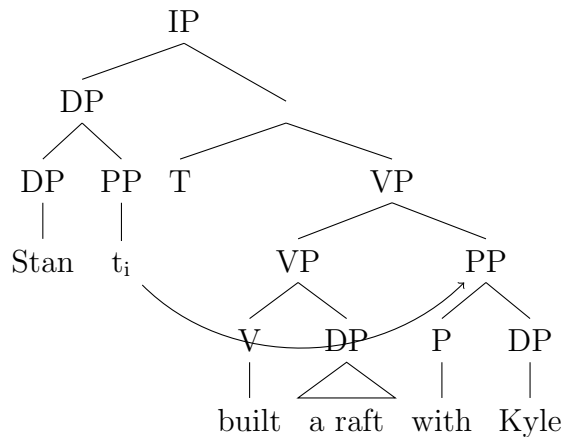
I see no reason to think that the verb *collide* in (37a) should be syntactically same as the verb *collide* in (40). The reason is that each verb requires a special subcategorization frame and consequently has a different structure. In addition, the semantics is different. In (40), both DPs are moving. In (37a) *Stan* is mobile while *Kyle* is stationary. This distinction is obvious in (42) in which coordinating a moving object with a stationary object is semantically odd, because both conjunct have to be active participants in the action of collision. This indicates that the coordinate and the comitative are not semantically equivalent.

(42) #The truck and lamppost collided.

Another proposed analysis, particularly for case in which the comitative PP is optional, is one in which DP1 and DP2 were assumed to be adjacent in the base

position, but DP2 along with *with* move and adjoined to VP. (Zhang 2007).

(43)



Neither of the above structures captures facts about the comitatives. The claim that a comitative involves a complex DP that contains DP1 and DP2 is not accurate on the basis of the differences between coordinates and comitatives I have presented.

Now I will go through Zhang's argument for the structure in (41) and show that they are invalid. Zhang 2007 contends that the fact that *DP1 ... with DP2*, may licensed a collective verb such as *collide* indicates that the two DPs must have been base generated in a nominal complex. She assumes that both nouns satisfy the selectional restrictions of the collective verb *collide* which requires a plural noun. As I have pointed out previously, *collide* that requires a plural subject in a coordinate have distinct syntactic and semantic properties from *collide..with*.

Additionally, cases such as (44) have been argued to show that a comitative has plural feature. *He* and *Harry* are claimed to be base generated in a complex DP. This explains the use of the plural word *friends* (Kayne 1994; Zhang 2007; Yamada 2010?). However, I believe the analysis of *friends* here is wrong. Alternatively, I propose that *friends with* is a nominal idiom that takes *Bill* as a complement.

The word *enemies*, for instance, may not occur in a similar construction.

(44) He is friends with Harry.

(45) *John is enemies with Bill.

Zhang argues that DP1+with+DP1 may not undergo A-bar movement (46). The inability of movement is because it is a complex DP. The argument runs into two problems. First, in Zhang's analysis, a comitative and a coordinate have a similar structure and both involve a complex DP. However, the coordinate may occur in a topic position.

(46) a. *The apple with the orange, Mary compared.

b. *Which apple with the orange did Mary compare? Zhang 2007: p148:
ex. (35a,b)

(47) The apple and the orange, Mary ate.

Furthermore, the impossibility of movement is because DP1 and with+DP2 cannot be a single constituent. If we use substitution tests with *one*, we will find that *one* cannot replace *the blue apple with the orange*. In addition, in VP topicalization, *with+the truck* moves with the verb, which supports my analysis of with+DP as VP adjuncts.

(48) Mary compared the blue apple with the orange and Bill compared the red one. (one cannot be an apple with the orange).

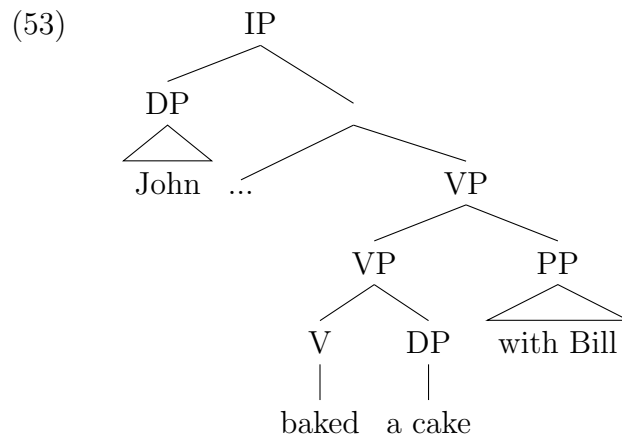
(49) Mary collided with the truck, and collided with the truck she did

(50) Mary is friends with Bill, and friends with Bill she is.

The last argument is related to the distribution of the comitative complex. Zhang indicates that the comitative complex may not occur in a preverbal position (51) in contrast with cases such as (52). In fact, in all of the above sentences, the combination DP1+with+DP2 cannot occur in a preverbal position because it does not form a constituent. To take one case, in (51c) illustrated in (53), *John* is a subject, while *with Bill* is a VP adjunct.

- (51) a. *John with Bill are friends.
 b. *John with his wife collided.
 c. *John with Bill baked a cake.
 d. *John with Bill will drink beer. (Zhang 2007: ex. (29))

(52) The woman with glasses has just left the room.



To conclude, I proposed that a comitative structure is distinct from a coordinate structure. A comitative does not involve a complex DP and the comitative PP can be a complement PP or a VP adjunct PP.

4 Against Comitative Coordinates

In this section, I will present Zhang’s 2010 split CC analysis. Then, I argue against the claim that the first conjunct may be extracted when the coordinate has a comitative reading. I will show that the cases she is referring to are, in fact, comitatives, not coordinates on the basis of the diagnostics presented in section (xxx).

Zhang 2010 assumes that coordinators are heads that select conjunct as arguments following Johannssen 1998 and Zoerner 1995, among others. She argues that CC should be split into two constraints: CCE that bans extraction of the external conjunct (54a), and CCI that bans extraction of internal conjuncts (54b). This split is motivated by different behavior of the initial conjunct and the final conjunct with respect to extraction. She claims that while CCI is inviolable, CCE can be violated in some contexts.

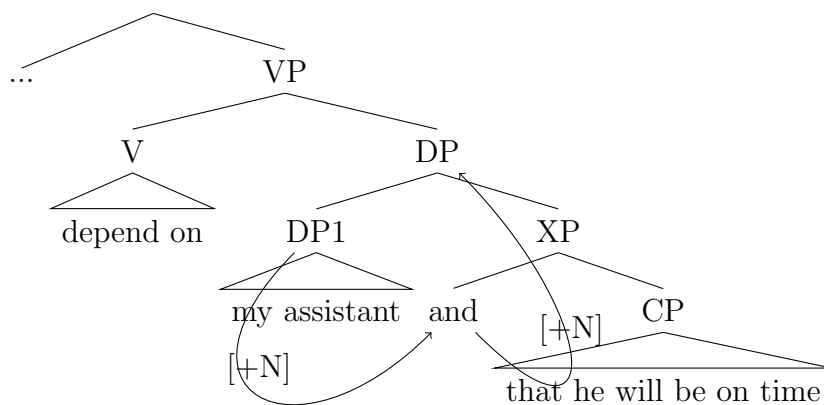
- (54) a. CCE: extraction of the external conjunct (or the conjunct right before the coordinator) is not allowed.
b. CCI: extraction of the internal conjunct (or rightmost) is not allowed.

Zhang spells out two assumptions to provide a syntactic explanation of the extraction of the first conjunct. First, some coordinators can have categorial features. If the coordinator lacks these categorial features, the first conjunct must transfer its features to the coordinator. These features will percolate up to the conjunction phrase to satisfy the selectional restrictions of a head that takes the conjunct phrase as a complement. For instance, in (55a), Zhang claims that the coordinator *and* lacks category features which it gets from *my asisstant*. The verb *depend on* requires a nominal argument, and since the conjunct phrase gets nominal feature from the first conjunct via the coordinator, the sentence is grammatical. On the

other hand, sentence (55b) is ungrammatical because the feature that the clause provides to the coordinator do not satisfy the selectional restrictions of the verb.

- (55) a. You can depend on [my assistant [and [that he will be on time]].
 b. *You can depend on [that my assistant will be on time] [and [him]].

(56)



The second assumption Zhang makes is that when a conjunct transfers its categorial features it loses its ability to move out of the coordinate phrase. This explains the immobility of the first conjunct in English.

- (57) a. John and Mary appear to be sick.
 b. *John appears to be sick and [- and Mary].

Now I will present Zhang's claim that he/gen coordinates allow extraction of first conjunct. Zhang 2009 provides evidence that he/gen constructions are complex DPs that have a structure similar to coordinates in which he/gen heads a complex DP with DP1 as an external argument while DP2 as an internal argu-

ment. She provides support for this assumptions by showing the distribution of these constructions and by explaining the status of *he/gen*+DP. In particular, the assumption that *he/gen* has nominal categorial features comes from the fact that the constructions always have two nominals. It is impossible for *he/gen* complexes to occur as argument of a verb like *renwei* ‘think’ which requires a clausal complement (58). However, *he/gen* complexes may occur as arguments of a verb like *renshi* ‘know’ (59). Therefore, Zhang concludes that *he/gen* has nominal categorial features that satisfy selectional restrictions of verbs that take nouns as arguments.

(58) Wo renshi [yi ge xiaoshuojia he/gen/*erqie yi ge yinyuejia]
 I know one clf novelist and/and/and one clf musician
 ‘I know a novelist and a musician.’

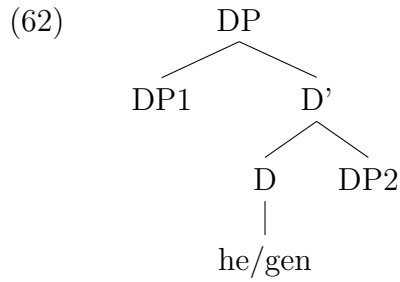
(59) Wo renwei [Baoyu yexinbobo (erqie/*he/*gen) ta hen youqian].
 I think Baoyou ambitious and/and/and he very rich
 ‘I think that Baoyu is ambitious and that he is very rich.’

Second, Zhang excludes the possibility of *he/gen*+DP2 being a PP adjunct by pointing out that Chinese PP adjuncts cannot occur to the right of the verb. So, unlike *with+Jane* in English comitative in (60), *gen+diliu bumen* in (61) is part of a complex DP headed by *he/gen*.

(60) I traveled to Italy with Jane.

(61) Gongsì hebing-le disan bumen he/gen diliu bumen.
 company combine-prf third branch HE/GEN sixth branch
 The company combines the third branch and the sixth branch. (Zhang 2009:p221: ex. 76b)

On the basis of the above properties of *he/gen* constructions, Zhang proposes that *he/gen* complexes are nominal complexes that have a complementational structure.



Zhang notes that *he/gen* complexes give rise to two interpretations. Sentence in (63) has a distributive reading, by being able to license distributive adverbs like *ge* ‘each’ . On the other hand, complexes like in (64) give rise to comitative or non-distributive interpretation. They allow collective adverbs such as *yi liang* ‘together’, and they can be an argument for a collective verb like *combine*.

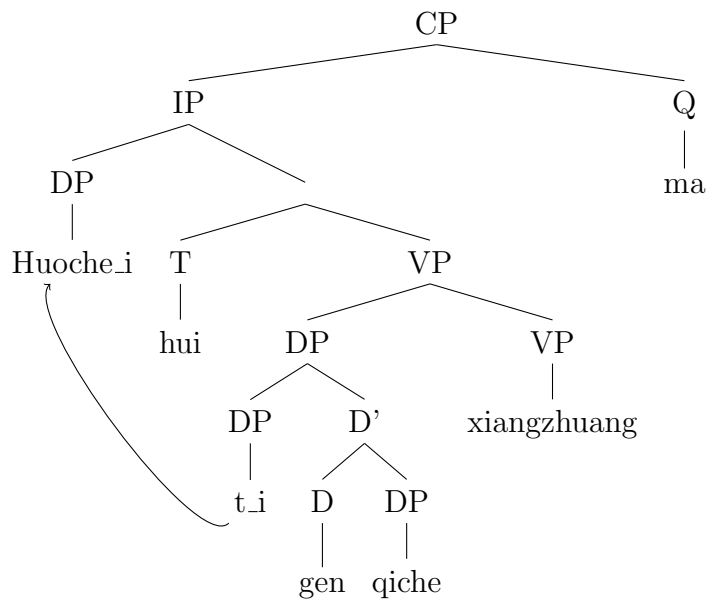
(63) Baoyu *he/gen* Daiyu *ge* *mai-le* *yi* *liang* *che*.
 Baoyu HE/GEN Daiyu each buy-prf one clf car
 Baoyu and Daiyu each bought a car. (Zhang 2009: p221: ex. (75))

(64) Baoyu *he/gen* Daiyu *he-mai-le* *yi* *liang* *che*.¹³
 Baoyu HE/GEN Daiyu co-buy-prf one clf car
 Baoyu and Daiyu bought a car together. (Zhang 2009: p221: ex. (76a))

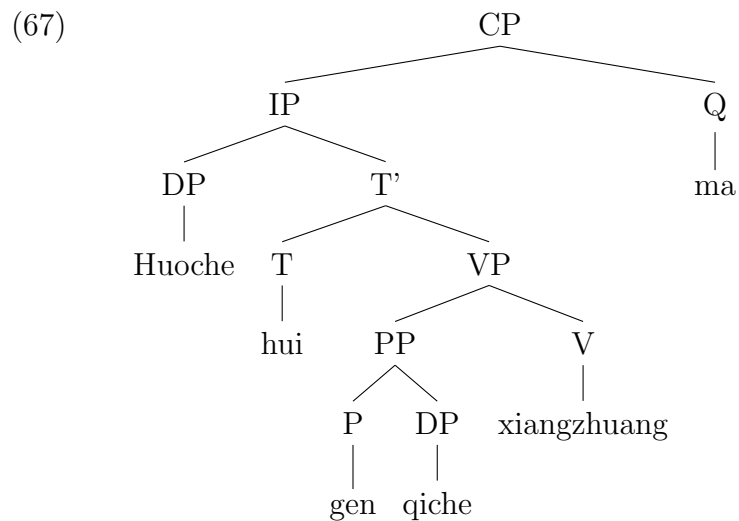
Some *he/gen* constructions, namely those that give rise to non-distributive reading allow extraction of the first conjunct. Zhang explains the extraction by assuming that since *he/gen* has categorial features, the first conjunct will not transfer its features to *he/gen*. This implies that at the point T probes for a DP to satisfy its EPP feature, *Huoche* will be available for AGREE and MOVE since it still has its features active. Structure (64) illustrates the extraction in (65).

(65) *Huoche* *hui* [*--gen* *qiche*] *xiangzhuang* *ma*?
 train might [*--and* bus] collide Q
 ‘Might the train collide with the bus?’(4.81 a : p114)

(66)



I object to this structure on the basis of the arguments presented in section 3. In (65), *he/gen+qiche* holds a thematic relation to the verb *Huoche* ‘collide’ and should be analyzed as a complement VP. The alternative structure I propose is (67).



To further support my argument that *he/gen+DP* is a comitative phrase (PP). I checked whether the phrase can iterate. The prediction is that if it is a comitative, then it should not iterate. This prediction is borne out in (68).

- (68) *Huoche hui [-gen qiche gen qiche] xiangzhuang ma?
 train might [-and bus and car] collide Q
 ‘Might the train collide with the bus?’(4.81 a : p114)

So what I am proposing is that *he/gen* can be a comitative marker (a preposition). It also can be a coordinator in which case extraction of the first conjunct is illicit. It is common for a lexical item to be ambiguous between a comitative marker and a coordinator.

5 Other Violations

In this section, I will briefly discuss two other reported violations of CC. As mentioned earlier, cases in which the conjunct is understood from the context or retrieved from previously uttered sentences were said to be violations of CC because the first conjunct is left unpronounced, which is a violation of CC as a PF constraint.

- (69) Mary: John attended the linguistics workshop.
 Peter: And Jane did too!

- (70) [Observing that the toddler started to walk]
 And he is nine months old!

There are a number of reasons that make me doubt that these examples constitute a violation of CC. First, examples like (69) can be viewed as not involving conjunct drop simply because the previously uttered sentence is actually a con-

junct, so it is pronounced if we imagined that it is a case of cross-speaker coordination. Support of this analysis comes from gapping in cross-speaker coordination. In addition, an anaphor in the second conjunct can be licensed in a cross-speaker coordination.

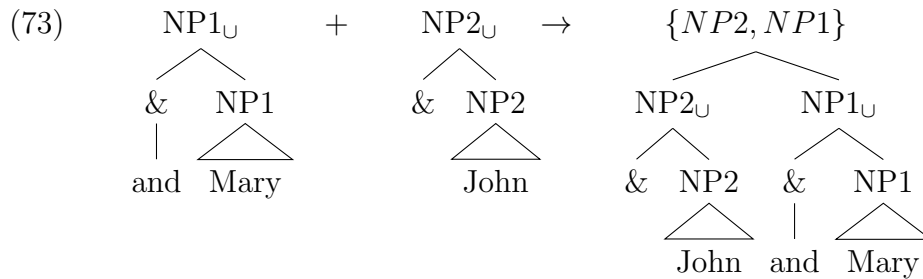
(71) A: Sally gave a present to Jane.

B: And John to Peter.

(72) A: Jane_i gave a present to Jane.

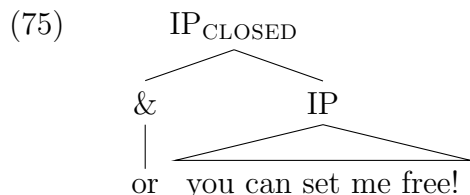
B: And a picture of herself_i to Peter.

Examples in which the first conjunct is understood from the context are a little tricky. One possible analysis is to assume that the coordinator in (70) is not exactly as the coordinator in *John and Mary* for instance. In fact these coordinators have been referred to as discourse initial conjuncts. In an unpublished work, I proposed that coordinate structure building involves set union. Set MERGE has recently been proposed as a general structure building operation (Collins 2002; Collins and Stabler 2014; Collins 2014). I adopt set merge to account for how coordinate phrases are built. I assume that the coordinator merges with a complement and form a complex projection that has the exact category of the complement but with a special feature that shows that the projection is a set member that requires union with another member. I illustrate how my analysis generates the coordinate phrase *John and Mary* in (73). This set union accounts for how the semantics of the coordinate phrase is created and how resolution features are derived.



Now if we assume that the coordinator in *John and Mary* is an open coordinator in the sense that when it is combined with a complement it needs a further constituent, or an external conjunct to use Zhang terms. We can call this coordinator an open coordinator. On the other hand, we can postulate that *and* in cases such as (73) may be a closed coordinator that takes a complement and does not need to combine with another coordinator. I will call it closed-*and* ($\&$). Thus, there is no first conjunct that has been dropped in the first place, so no CC violation is incurred. This analysis is more likely given that not only *and* can be discourse initial, the disjunctive and adversative coordinators can also occur sentence initially (74). To illustrate, I assume that the discourse initial coordinator *or* in (74b) is a special coordinator that does not require a first conjunct as illustrated in (75).

- (74) [A prisoner is about to be executed.]
 a. Prisoner: But I am innocent!
 b. Prisoner: Or you can set me free!



A further argument against conjunct drop analysis is the fact that it never occurs sentence medially. The cases that are claimed to involve conjunct drop all happen to be sentence initial. If conjunct drop is available as a strategy, why can't we see it sentence medially? In (76c), the use of *so* is preferred in this context.

- (76) a. [observing the man leaving the room.]
 b. I think [~~He is leaving~~], and he will meet a friend of his.
 c. I think so, and he will meet a friend of his.

A second sort of CC violation, which I assume to be crosslinguistic, is in afterthought conjuncts, or what Progovac refers to the coordinator as adjunctional *and*. It has been claimed that CC may be violated in sentences like (76) in which the coordinator+DP act more like afterthought or a parenthesis.

- (77) Jane Checked out a novel from the library, and a journal.

The above violations are better handled if we assume that the superficial violation is in fact is a linear effect of clausal coordination plus ellipsis. Therefore, they do not involve movement. I assume that the DP *a journal* undergoes leftward movement, and the IP remnant is elided. For ellipsis I assume the *a journal* move leftward, and the IP remnant is elided by an ellipsis feature on T.

- (78) [IP Jane Checked out a novel from the library], and [IP [a journal] [~~HP Jane check from the library.~~]]

An evidence of this analysis is that in similar examples, a collective verb is not licensed. *hug* is a collective predicate that requires a plural argument. The ungrammaticality of sentences (79b,c) indicates that *Jane* and *Jill* are not base generated in a conjunction phrase and they cannot form a plural argument the

verb *hug* requires. In other words, the sentence is in fact clausal coordination as in (81) that has undergone ellipsis.

- (79) a. Jane and Jill hugged.
b. *Jane hugged and Jill.
c. *Jane hugged and Jill hugged.
- (80) a. Jane and Jill both left.
b. *Jane both left and Jill
- (81) *Jane hugged and [IP Jill [IP ~~hugged.~~]]

6 Conclusion

In this paper I have argued that the Conjunct Constraint (CC) which I assume to be a constraint operative at PF is inviolable. I have argued against the claims that CC may be violated in comitatives, with sentence initial coordinators, and with adjunctional *and*.

I have mainly argued against the false analysis of comitatives as coordinations involving complex DPs and showed that a comitative PP is independent of DP1 and can be an argument of the verb or a VP adjunct. Thus, extraction from a comitative does not show that CC may be violated simply because a comitative is not a coordinate.

Additionally, I have proposed that other violations such as those with sentence initial coordinator can be accommodated as either cross-speaker coordination or as a special sort of coordination that does not require a first conjunct. I also pointed out that the claimed CC violation with adjunctional *and* is not a violation. Rather, it is a surface reflex of clausal coordination plus ellipsis.

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