

No Clash Constraint in Nominal RNR Number Agreement

Zheng Shen
University of Connecticut

1. Introduction

This talk looks into cross-linguistic number agreement patterns in the right node raising construction within the nominal domain (NRNR). The right node raising construction in (1) involves one structure (target) being shared by two sources. It has been investigated in numerous researches in the VP, TP, and CP domain.

(1) John likes, but Mary hates apples.

However, RNR in the nominal domain in (2) has not been looked into as extensively (see Harizanov and Gribanova (to appear); Arregi and Nevins (2013) for data from Bulgarian). In (2-a-b) with the intended reading in (2-c), the demonstrative this and that shares one element student(s). When the sharing elements (sources) are demonstratives in English, only the singular target is allowed. I will label this pattern as the Singular Pattern.¹

(2) SOURCE AND SOURCE TARGET

- a. This and that student are a couple.
- b. *This and that students are a couple.
- c. Intended reading: ‘This student and that student are a couple.’

However, when the sources are English possessive DPs, the agreement pattern is reversed: only the plural target is allowed, which I will label as the Plural Pattern.

- (3) a. *John’s and Mary’s student are a couple.
- b. John’s and Mary’s students are a couple.
- c. Intended reading: ‘John’s student and Mary’s student are a couple.’

Road map

- Section 2 Cross-linguistic data and generalizations
- Section 3 Deriving the distribution of the singular target
- Section 4 Deriving the distribution of the plural target
- Section 5 Mismatch data and an account
- Section 6 Future Research

2. Data and Generalization

- (4) Demonstrative: [this student] and [that student]
 - a. This and that student are a couple.
 - b. *This and that students are a couple.
- (5) Demonstrative + Adj: [this tall student] and [that short student]
 - a. This tall and that short student are a couple.
 - b. *This tall and that short students are a couple.
- (6) Numeral + Adj: [one tall student] and [one short student]
 - a. One tall and one short student are a couple.
 - b. *One tall and one short students are a couple.

¹ I focus on pre-nominal sources here.

- (7) Indefinite determiner + Adj: [a tall student] and [a short student]
 - a. A tall and a short student are a couple.
 - b. *A tall and a short students are a couple.
- (8) Definite Article + Adj: [the tall student] and [the short student]
 - a. The tall and the short student are a couple.
 - b. *The tall and the short students are a couple.
- (9) Possessive DP + Adj: [John’s tall student] and [Mary’s short student]
 - a. John’s tall and Mary’s short student are a couple.
 - b. *John’s tall and Mary’s short students are a couple.
- (10) Pronominal Possessive + Adj: [his tall student] and [her short student]
 - a. His tall and her short student are a couple.
 - b. *His tall and her short students are a couple.

When the sources are possessive DPs or pronominal possessives, the plural pattern emerges.

- (11) Bare Possessive DP: [John’s student] and [Mary’s student]
 - a. *John’s and Mary’s student are a couple.
 - b. John’s and Mary’s students are a couple.
- (12) Bare Pronominal possessives: [his student] and [her student]
 - a. *His and her student are a couple.
 - b. His and her students are a couple.

The cross-linguistic data is summarized in Table 1.²

Table 1: Cross-Linguistic Distribution

	English	German	Dutch	Icelandic	Polish	Serbo-Croatian	Slovenian	Cypriot Greek	Brazilian Portuguese
Dem	Singular	Singular	Singular	Singular	Singular	Singular	Singular	Singular	Singular
Dem+Adj	Singular	Singular	Singular	N/A	Singular	Singular	Singular	Singular	Singular
Num+Adj	Singular	Singular	Singular	Singular	Singular	Singular	Singular	Singular	Singular
Ind+Adj	Singular	N/A	Singular	N/A	N/A	N/A	Singular	Singular	N/A
Def+Adj	Singular	Singular	Singular	Singular	N/A	N/A	N/A	Singular	Singular
Poss+Adj	Singular	Singular	Singular	N/A	Singular	Singular	Singular	N/A	N/A
Poss DP	Plural	Plural	Plural	Plural	Plural	Singular	Singular	N/A	N/A

(13) **Singular Generalization:** The singular pattern appears when the sources show morphological agreement with the target or when the sources contain adjectives.

Showcase 1: Polish Possessives and Genitives

- (14) Polish Adjectival possessive → morphological agreement → Singular Pattern
 - a. Janowy i Marysiny student są parą.
John’s.sg and Mary’s.sg student are couple.
 - b. ? Janowy i Marysiny studenci są parą.
John’s.sg and Mary’s.sg students are couple
‘John’s student and Mary’s student are a couple.’

² The N/A cases are ruled out by independent reasons such as the lack of the relevant lexical items, the relevant items being post-nominal, etc.

- (15) Polish Genitives → no morphological agreement → Plural Pattern³
- * Jana i Marii student są parą.
John.gen and Mary.gen student are couple.
 - Jana i Marii studenci są parą.
John.gen and Mary.gen students are couple
'John's student and Mary's student are a couple.'

Showcase 2: Icelandic Possessive Pronouns

- (16) Icelandic 1st and 2nd person possessive pronouns → morphological agreement → Singular Pattern
- Minn nemandi og þinn nemandi eru sætt par.
my.sg student and your.sg student.sg are cute couple
'My student and your student are a cute couple.'
 - ? Minn og þinn nemandi eru sætt par.
my.sg and your.sg student.sg are cute couple
'My and your student are a cute couple.'
 - * Minn og þinn nemendur eru sætt par.
My.sg and your.sg student.pl are cute couple.
'My and your students are a cute couple.'
- (17) Icelandic 3rd person possessive pronouns: → no morphological agreement → Plural Pattern
- Hans nemandi og hennar nemandi eru sætt par.
he.gen student and she.gen student are cute couple.
'His student and her student are a cute couple.'
 - * Hans og hennar nemandi eru sætt par.
he.gen and she.gen student are cute couple.
'His and her student are a cute couple.'
 - Hans og hennar nemendur eru sætt par.
he.gen and she.gen students are cute couple.
'His and her students are a cute couple.'

(18) **Plural Generalization:** When two sources are singular, the plural pattern appears if the sources can be conjoined and do not show agreement with the target.

- (19) English Bare possessive DPs → can be conjoined and no agreement → Plural Pattern
- * John's and Mary's student are a couple.
 - John's and Mary's students are a couple.
- (20) English Possessive DPs + Adjectives → non constituents cannot be conjoined → Singular Pattern
- John's tall and Mary's short student are a couple.
 - * John's tall and Mary's short students are a couple.
- (21) German Possessive Pronouns: Singular Pattern → morphological agreement → Singular Pattern
- Sein Student und ihr Student sind ein tolles Paar.
His.sg.nom student.sg.nom and her.sg.nom student.sg.nom are a great pair
 - Sein und ihr Student sind ein tolles Paar.
His.sg.nom and her.sg.nom student.sg.nom are a great pair.
 - * Sein und ihr Studenten sind ein tolles Paar.
His.sg.nom and her.sg.nom student.pl.nom are a great pair.

³ In other Slavic languages investigated e.g. Slovenian, Serbo-Croatian, prenominal genitive is unavailable, thus only the singular pattern is allowed.

3. Deriving the Singular Target

Feature configurations:

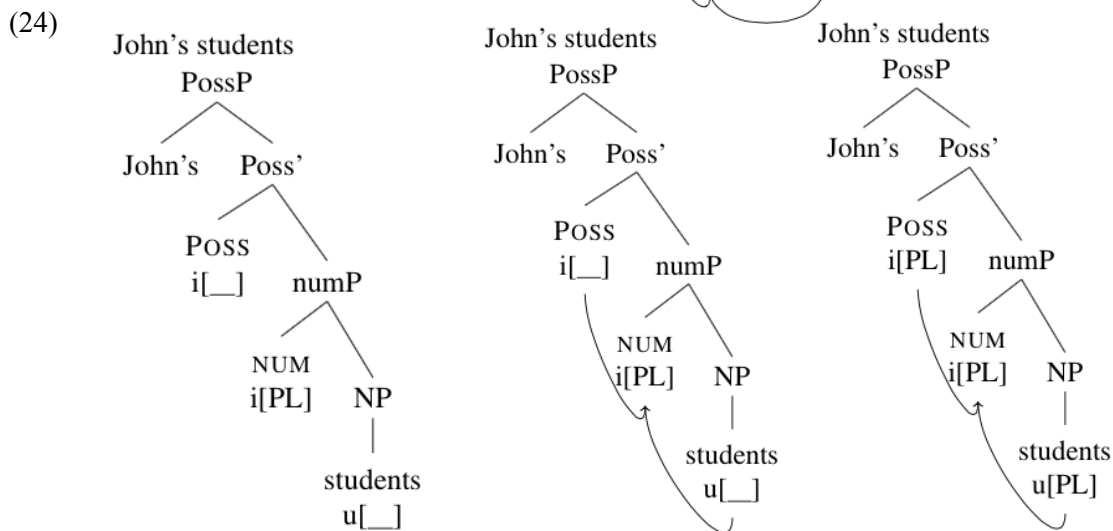
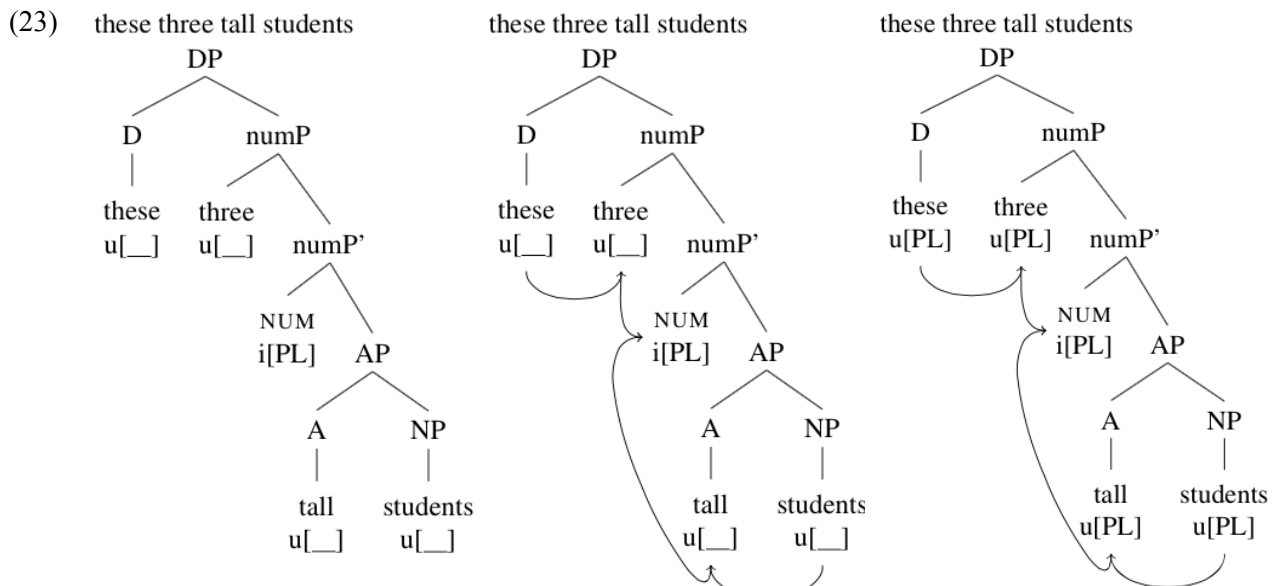
- I. NUM heads carry valued interpretable number features.
- II. Morphological number agreement indicates an uninterpretable number feature: nouns, English demonstratives, German possessive pronouns, Polish adjectival possessives, etc.
- III. Adjectives carry uninterpretable number features.
- IV. Possessive head POSS carries interpretable number feature.

Two-Step Agree (Chomsky 2000, 2001; Bhatt and Walkow 2013):

1. Match: the probe matches with the goal to ensure feature identification. (Indicated by arrows.)
2. Value: the feature value on the goal gets copied onto the probe.

Following previous literature (see Longobardi 2001 for a review of the DP structure), I assume the DP structure as follows.⁴

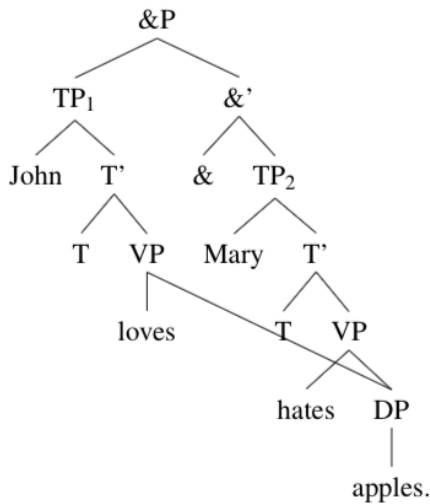
(22) $[_{DP} D [_{numP} Numeral NUM [_{AP} A [_{NP} N]]]]$



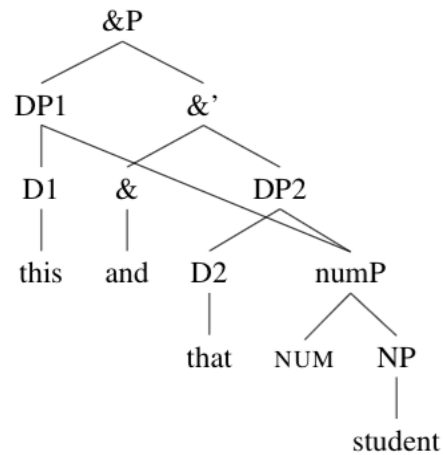
⁴ Note that the account to be proposed is neutral to the status of adjectives: it is compatible with theories where adjectives are adjuncts or specifiers of other functional projections.

I assume a Multi-Dominance (MD) analysis for the NRNR construction involving singular targets. (McCawley 1982; Wilder 1999; Abels 2004; Citko 2005 among many others.)

(25) John loves and Mary hates the apples.



(26) this and that student



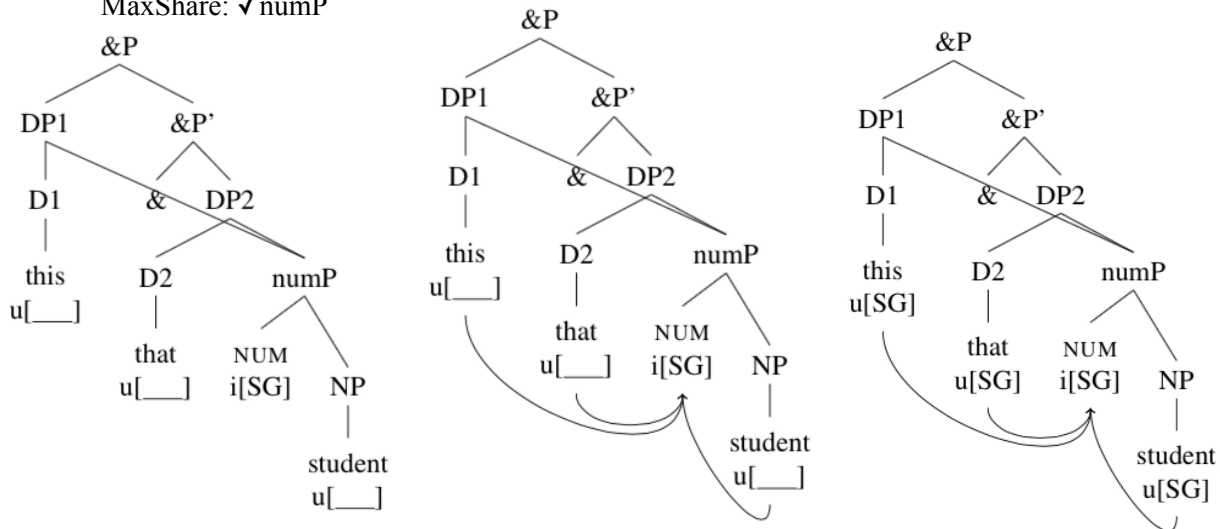
(27) uAgree requirement: ZP is shareable by X and Y if there is an uAgree relation between X and Z and Y and Z. An uAgree relation involves an uninterpretable feature on at least one element in the agree relation: any unvalued feature agrees with a valued uninterpretable feature: $i/u[] \rightarrow u[X]$, an unvalued uninterpretable feature agreeing with any feature: $u[] \rightarrow i/u[/X]$.

(28) MaxShare: XP can be shared only if there is no YP such that YP dominates XP and YP is shareable, if the XP sharing structure and the YP sharing structure have identical interpretations.⁵ MaxShare is derived from an economical principle: sentences involving larger shared structure involve a derivation that requires selecting the same lexical/functional items from the numeration less times. (MaxShare is the same as *maximizing shared structure* in Citko 2006)

3.1 Availability of the Singular Target

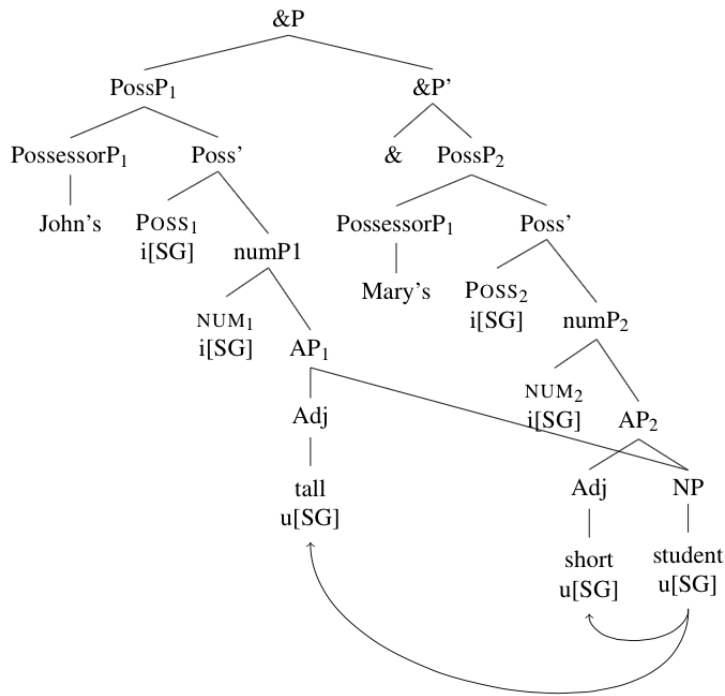
(29) This and that student are a couple.

uAgree: ✓
MaxShare: ✓ numP



⁵ Here I define 'shareable' as non-distinct.

- (30) John's tall and Mary's short student are a couple.
 uAgree: ✓
 MaxShare: ✓ NP

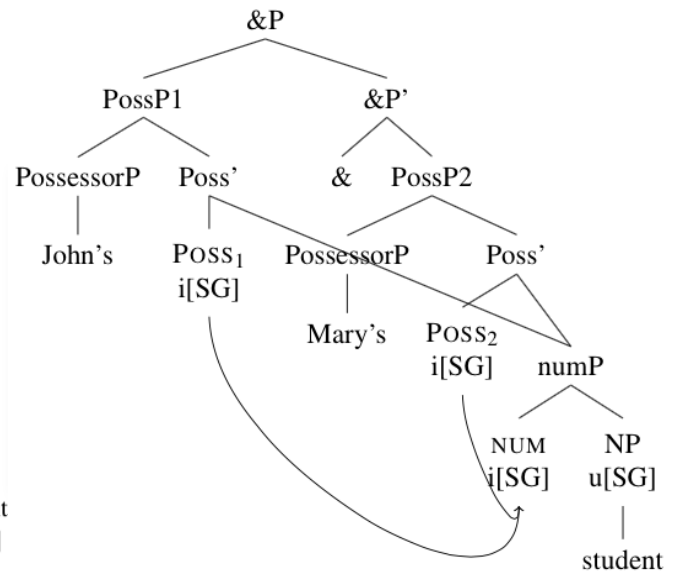
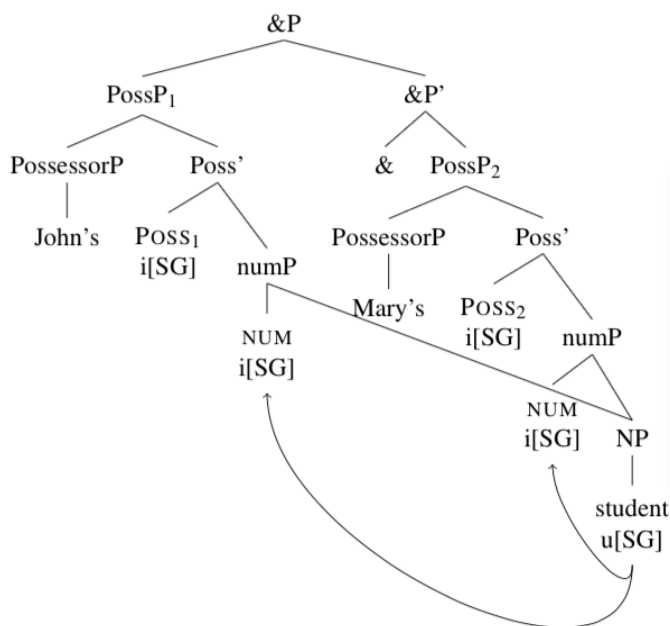


3.2 Unavailability of the Singular Target

- (31) *John's and Mary's student are a couple.

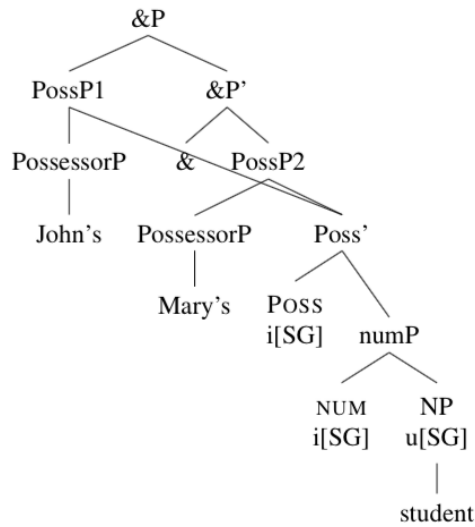
a. uAgree: ✓
 MaxShare: *

b. uAgree: *
 MaxShare: *



c. uAgree: *

MaxShare: ✓



4. Deriving the Plural Target

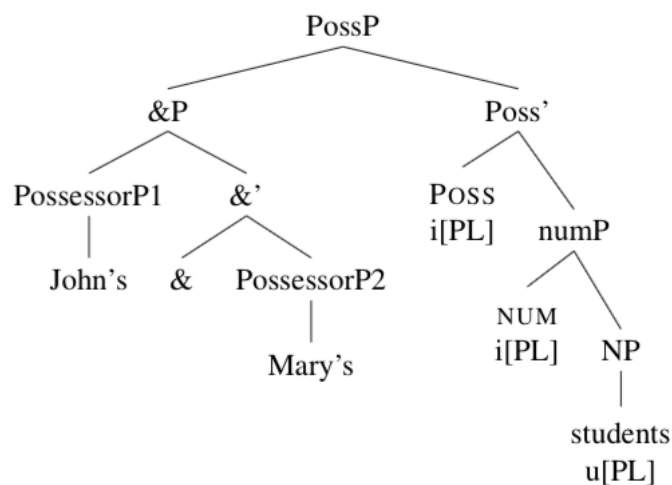
4.1 Availability of the Plural Target

(32) Non-agreeing + Conjoinable sources

- a. John's and Mary's students are a couple.
- b. His and her students are a couple.
- c. Jana i Marii studenci są parą. (Polish non-agreeing genitive)
J.gen and M.gen students are couple
'J's student and M's student are a couple.'
- d. Hans og hennar nemendur eru sætt par. (Icelandic 3rd person possessive pronouns)
he.gen and she.gen students are cute couple.
'His and her students are a cute couple.'

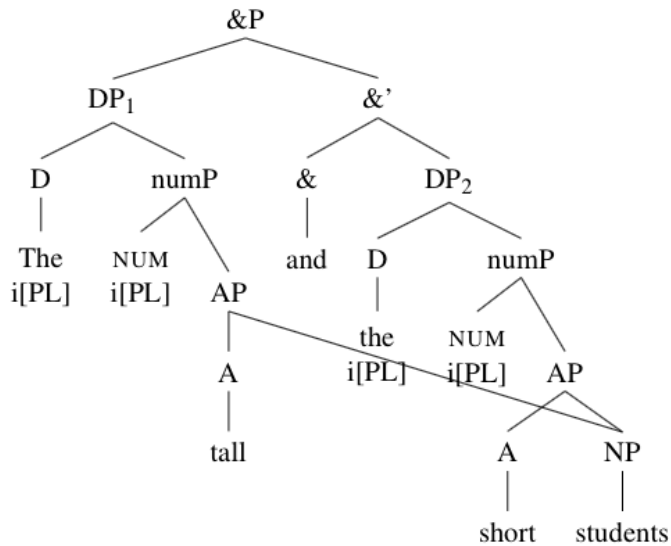
It is shown already that the MD structure cannot be generated in cases involving non-agreeing sources. I argue that the plural target is generated in a different structure in (33).

(33) John's and Mary's students are a couple.



Plural targets are ruled out in the cases with sources that do not show morphological agreement for interpretative reasons.

- (40) a. *The tall and the short students are a couple.
- b. The tall and the short students met each other.



5. Mismatch

(41) English/Icelandic/Brazilian Portuguese Demonstratives Mismatch

- a. One tall and ten short boys met each other.
- b. ?Ten tall and one short boy met each other.
- c. *One tall and ten short boy met each other.
- d. *Ten tall and one short boys met each other.

(42) German Demonstratives Mismatch

- a. *Dieser große und jene kleinen Student haben sich getroffen
This tall and those short student have SELF met
- b. Dieser große und jene kleinen Studenten haben sich getroffen
This tall and those short students have SELF met
- c. Diese großen und jener kleine Student haben sich getroffen
These tall and that short student have SELF met
- d. *Diese großen und jener kleine Studenten habe sich getroffen
These tall and that short students have SELF met
'They met each other'

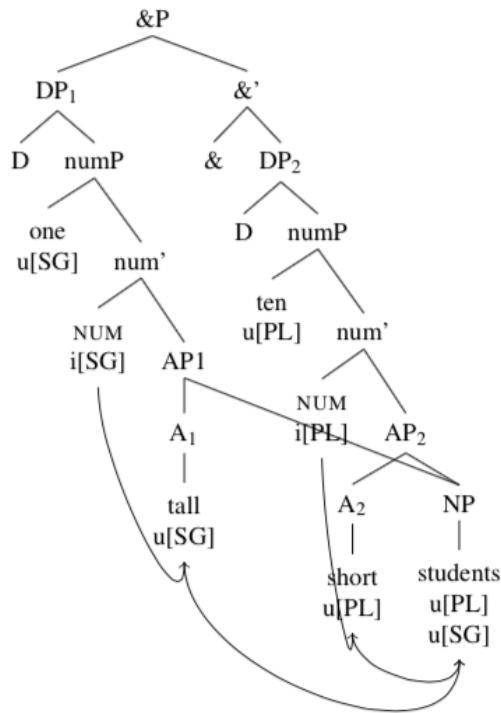
Account: Value delay till PF.

In account for closest conjunct agreement in Hindi Urdu, Bhatt and Walkow (2013) propose that the 1st step of Agree, namely Match always occurs in the syntax. The 2nd step, Value, on the other hand, can be delayed to PF where linear order come into play.

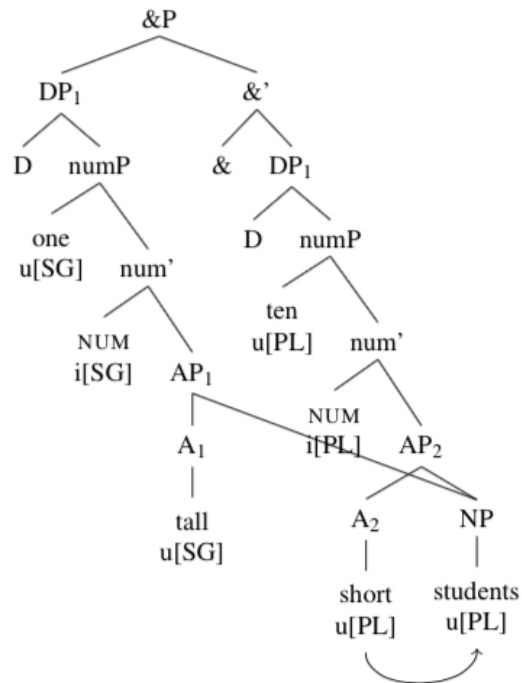
- (43) ... [F.PL + F.SG]. ... V.[F.SG]
Ram-ne kai thailiyā: aur ek pe.tii (aa) u.thaa-yii thii
Ram-ERG many bags.F and a box.F (today) lift-PFV.F be.PST.F.SG
'Ram had lifted many bags and a box (today).'

(44) One tall and ten short students met each other.

a. Match



b. Value



6. Future Research

Bulgarian and Russian seem to fall out of the generalizations.

(45) Bulgarian Adjectives

- a. bǎlgarsk-i-ja i rusk-i narod-i
 Bulgarian-SG.M-the and Russian-SG.M nation-PL.
 ‘the Bulgarian and Russian nations’ (two nations: a Bulgarian nation and a Russian nation)
- b. parv-a-ta i posledn-a stranic-i
 first-SG.F-the and last-SG.F page-PL
 ‘the first and last pages’ (two pages: a first and a last one)
 (examples from Harizanov and Gribanova to appear)

(46) Russian Bare Demonstrative - Plural pattern

- a. Etot student i tot student para.
 this student.SG and that student.SG couple.SG
 ‘This student and that student are a couple.’
- b. *Etot i tot student para.
 this and that student.SG couple.SG
 ‘This and that student are a couple.’
- c. Etot i tot studenty para.
 this and that student.PL couple.SG
 ‘This and that students are a couple.’

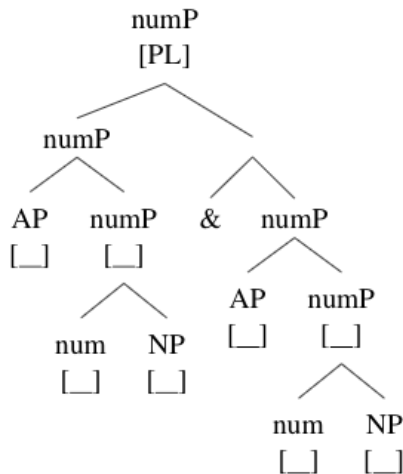
(47) Russian Adjectives - Plural Pattern

- a. pervaya stranica i poslednyaya stranica krasivye

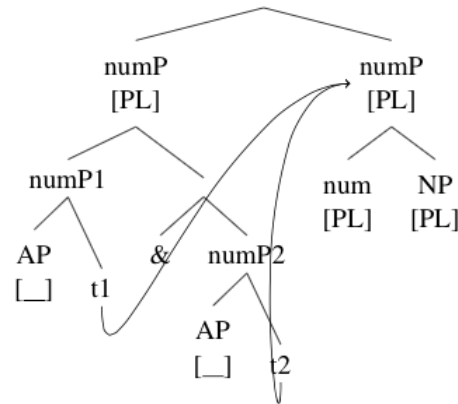
- first.SG page.SG and last.SG page.SG beautiful.PL
- b. *pervaya i poslednyaya stranica krasivye
first.SG and last.SG page.SG beautiful.PL
- c. pervaya i poslednyaya stranicy krasivye
first.SG and last.SG page.PL beautiful.PL
'The first page and the last page are beautiful.'

Account 1: Harizanov and Gribanova (to appear): 1) [] = singular 2) ATB movement 3) feature resolution

(49) a.



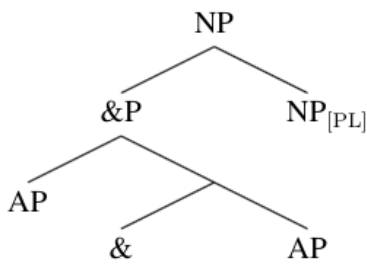
b. ATB movement



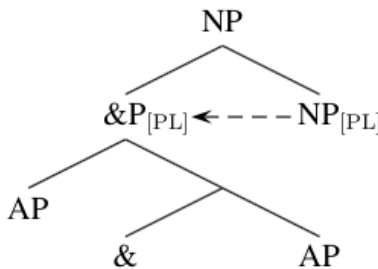
Account 2: Arregi and Nevins (2013)

“Although resolution in coordination is normally understood as operating ‘bottom-up’ (the features on &P are determined by the features on coordinated elements), we assume that resolution rules are neutral in this respect, and can thus be used in a ‘top-down’ fashion.” (Arregi and Nevins (2013) f.20)

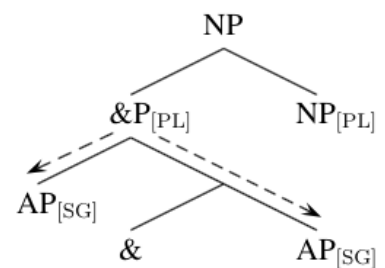
(50) a.



b.



c.



Selected References

Abels, Klaus. 2004. Right Node Raising: Ellipsis or across the board movement? In Proceedings of the North East Linguistic Society 34, ed. Keir Moulton and Matthew Wolf, volume 1, 45–60. University of Massachusetts at Amherst: Graduate Linguistic Student Association.

Arregi, Karlos, and Andrew Nevins. 2013. Contextual neutralization and the elsewhere principle. In Distributed morphology today: Morphemes for Morris Halle, ed. Ora Matushansky and Alec Marantz, 199–222. Cambridge, MA: MIT Press.

Baker, Mark. 2008. The Syntax of Agreement and Concord. Cambridge University Press.

- Barker, Chris. 1995. Possessive descriptions. Stanford University: CSLI Publications.
- Bhatt, Rajesh, and Martin Walkow. 2013. Locating agreement in grammar: an argument from agreement in conjunctions. *Natural Language and Linguistic Theory* 31:951–1013.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. Roger Martin, David Michaels, and Juan Uriagereka, 89–156. MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in linguistics*, ed. Michael Kenstowicz, 1–52. Cambridge, Massachusetts: MIT Press.
- Citko, Barbara. 2005. On the nature of merge: External merge, internal merge, and parallel merge. *Linguistic Inquiry* 36:475–496.
- Citko, Barbara. 2006. The interaction between Across-the-Board wh-movement and left-branch extraction. *Syntax* 9:225–247.
- Dowty, David. 1989. On the semantic content of the notion of ‘thematic role’. In *Properties, types and meaning: Semantic issues*, ed. Gennaro Chierchia, Barbara H. Partee, and Raymond Turner. Dordrecht, The Netherlands: Kluwer Academic Press.
- Gračanin-Yukse, Martina. 2007. About sharing. Doctoral Dissertation, MIT.
- Harizanov, Boris, and Vera Gribanova. to appear. How across-the-board movement interacts with nominal concord in bulgarian. In *Proceedings from the Annual Meeting of the Chicago Linguistic Society (CLS)*, University of Chicago, IL: Chicago Linguistic Society.
- Larson, Bradley. 2012. A dilemma with accounts of right node raising. *Linguistic Inquiry* 43:143–150.
- Llombart-Huesca, Amália. 2002. Anaphoric one and Np-Ellipsis. *Studia Linguistica* 56:59–89.
- Longobardi, Giuseppe. 2001. How comparative is semantics? a unified parametric theory of bare nouns and proper names. *Natural Language Semantics* 9:335–369.
- McCawley, James D. 1982. Parentheticals and discontinuous constituent structure. *Linguistic Inquiry* 13:91–106.
- Wilder, Chris. 1999. Right node raising and the lca. In *Proceedings of WCCFL* 18.
- Moltmann, Friederike. 1992. Coordination and comparatives. Doctoral Dissertation, MIT.
- Partee, Barbara. 1983/1997. Uniformity and versatility: the genitive, a case study. In *The handbook of logic and language*, ed. J. van Benthem and A. ter Meulen, 464–470. Amsterdam: Elsevier.
- Partee, Barbara H., and Vladimir Borschev. 2000. Some puzzles of predicate possessives. In *Festschrift for ferenc kiefer*, ed. R.M. Harnish and Istvan Kenesei. John Benjamins Publishing Company, Amsterdam.
- Payne, John, and Rodney Huddleston. 2002. Nouns and noun phrases. In *The cambridge grammar of the english language*, ed. Rodney Huddleston and Geoffrey Pullum, 323–523. Cambridge University Press.
- Ritter, Elizabeth. 1991. Two functional categories in noun phrases: Evidence from Modern Hebrew. In *Syntax and semantics 25: Perspectives on phrase structure: Heads and licensing*, ed. Susan Rothstein. Academic Press.
- Sabbagh, Joseph. 2007. Ordering and linearizing rightward movement. *Natural Language and Linguistic Theory* 25:349–401.
- Sabbagh, Joseph. 2008. Right node raising and extraction in Tagalog. *Linguistic Inquiry* 39:502–511.
- Sauerland, Uli. 2003. A new semantics for number. In *Proceedings of SALT 13*, 258–275. Cornell University, Ithaca, NY: CLC Publications.
- Vries, Mark de. 2005. Coordination and syntactic hierarchy. *Studia Linguistica* 59:83–105.
- Vries, Mark de. 2009. On multidominance and linearization. *Biolinguistics* 3:344–403.