

The different merge positions of the different types of relative clauses¹

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Abstract:

A frequent, implicit, assumption is that the different types of relative clauses (nonrestrictive, restrictive, amount, kind-defining, infinitival and reduced participial relatives) are in one and the same language merged in one and the same position. Here, evidence will be presented that their merger is actually at different heights of the nominal extended projection.

1. The merge positions of non-integrated and integrated nonrestrictives

As noted in Cinque (2008), non-integrated nonrestrictive relative clauses (RCs) are ‘outside’ of the sentence containing the head, in a structure which is impermeable to sentence grammar relations (Agree, Binding, etc.) despite the asymmetric c-command relation existing between the head and the RC under the extension of the LCA to Discourse Grammar. As expected, given the higher merger of non-integrated nonrestrictives, in head-initial languages such as Italian in (1) where they are both post-nominal, non-integrated nonrestrictive RCs necessarily follow integrated ones.

¹ To Sten with sympathy and admiration. I wish to thank an anonymous reviewer and Ken Ramshøj Christensen for their comments on a previous version of this article.

(1) **Italian**

- a. Gianni, [che è arrivato ieri], ...
Gianni, that is arrived yesterday,...
 [il quale poi raramente si dimostra disponibile], ...
the which then rarely Refl shows availability, ...
 ‘Gianni, who arrived yesterday, who is rarely ready to help, ...’
- b. *?Gianni, [il quale raramente si dimostra disponibile],
 ‘Gianni, who is rarely ready to help,
 [che è arrivato ieri], ...
that is arrived yesterday ...’

2. The merge positions of finite (integrated) nonrestrictive and restrictive relative clauses

In languages in which restrictives remain between the N and the demonstrative, nonrestrictives are invariably found outside of the demonstrative.² This is true, among other languages, of head-initial Vietnamese, (2)³, Indonesian, (3)⁴, and Javanese⁵, and of head-final Korean⁶ (see Nguyen 2004; Lehmann 1984; Ishizuka 2007 and Cinque 2005; and Kim 1997, respectively).

(2) **Vietnamese**

- a. Tôi thích cái đầm [_{RC} mà cô ấy chọn] [_{Dem} này]
I like CLF dress that aunt that choose this
 ‘I like this dress that the aunt has chosen’ (restrictive)

² An early proposal for a higher attachment of nonrestrictive RCs with respect to restrictives is in Jackendoff (1977: §7.1), based on the relative position of restrictive and nonrestrictive RCs when they co-occur (with the former closer to the head). Additional works pointing to the same structural difference between the two types of RCs include Emonds (1979), Demirdache (1991: 108f), McCawley (1998), Grosu (2000: 100), Wiltschko (2012). Also see Arsenijević and Gračanin-Yukseš (2016) for an argument that restrictive and nonrestrictive RCs differ syntactically in terms of attachment.

³ “When the RC precedes the demonstrative, the RC restricts the meaning of the noun; when the RC follows the demonstrative, the phrase has a nonrestrictive meaning” (Nguyen 2004: 61f).

⁴ “[2](a) ist restriktiv, [2](b) appositiv” (Lehmann 1984: 282).

⁵ “[T]he *séng* RCs preceding a demonstrative are restrictive RCs, whereas the *séng* RCs following a demonstrative are nonrestrictive RCs” (Ishizuka 2007: §2). Javanese NPs have the order N A Num Dem (Cinque 2005: fn19).

⁶ According to Kim (1997: §4.3) Korean relative clauses appearing between the demonstrative and the N receive a restrictive interpretation, while those appearing outside the demonstrative receive a nonrestrictive interpretation.

- b. Tôi thích cái đầm [_{Dem} **này**] [_{RC} mà cô ây chọn]
I like CLF dress this that aunt that choose
 ‘I like this dress, which the aunt has chosen’ (nonrestrictive)

(3) Indonesian

- a. lelaki [_{RC} yang sedang tidur] [_{Dem} **itu**]
man Rel Prog sleep that
 ‘That man that is sleeping...’ (restrictive)
- b. lelaki [_{Dem} **itu**] [_{RC} yang sedang tidur]
man that Rel Prog sleep
 ‘That man, who is sleeping, ...’ (nonrestrictive)

According to Kameshima (1989: §4.3.3.1) and Ishizuka (2008), Japanese minimally differs from Korean in that relatives appearing inside a demonstrative have just a restrictive interpretation whereas those appearing outside demonstratives may receive either a restrictive or a nonrestrictive interpretation.⁷ This suggests that the merge position of nonrestrictives is outside the demonstrative and that of restrictives inside the demonstrative, even though restrictives, in languages like Japanese, can optionally raise past the demonstrative (cf. Kameshima 1989: 215), to a position lower than the merge position of nonrestrictives (given that “the natural order, when restrictive and nonrestrictive relatives co-occur, is that a nonrestrictive precedes a restrictive relative”, Kameshima 1989: 233). Jaklin Kornfilt, p.c., tells me that the same is true of Turkish where a restrictive RC precedes the demonstrative, following, if present, a nonrestrictive one (which canonically precedes the demonstrative).

3. The merge position of kind-defining and restrictive and nonrestrictive RCs

Judging from Italian, it appears that kind-defining RCs (cf. Benincà 2012, Benincà & Cinque 2014) necessarily occur after ordinary restrictives, (4), and before ordinary nonrestrictives, (5):

⁷ Ishizuka (2008: §2) attributes the original observation to Kamio (1977: 153-159).

(4) **Italian**

- a. Quello è un ragazzo [che conosco] [che non esita
That is a boy that I know that not hesitate
mica a rischiare].
at.all to risk
 ‘That is a young man that I know that does not hesitate at all to take risks’.
- b. *Quello è un ragazzo [che non esita **mica** a rischiare] [che conosco].
 ‘That is a young man that does not hesitate at all to take risks who I know’.

(5) **Italian**

- a. Quelli sono ragazzi [che non esitano **mica** a rischiare]],
Those are boys that not hesitate at.all to risk
 [che/i quali in ogni caso non hanno mai messo in
that/the which at any rate not have never put in
 pericolo nessuno].
danger nobody
 ‘Those are young men that do not hesitate to take risks, who incidentally never put anyone in danger.’
- b. *Quelli sono ragazzi, [che/i quali in ogni caso non hanno mai messo in pericolo nessuno], [che non esitano **mica** a rischiare].
 ‘Those are young men, who incidentally never put anyone in danger, that do not hesitate to take risks.’

Under the roll-up derivation of head-initial/medial languages, these data show that kind-defining RCs are lower than nonrestrictives and higher than ordinary restrictives.

As Radford (2019: §1.2, fn. 4) observes “Data from the Kroch corpus suggest that the same ordering holds in English, since it contains 27 examples (like those below) in which an antecedent is modified by both a restrictive gap relative and a resumptive kind relative, and in every one of these the restrictive relative precedes the kind relative”:

- (6) a. There's a train [you can take] [that it stops in Chicago]
(Ann Houston, Kroch corpus)
- b. I have a friend [that I talk to] [that we left-dislocate and
topicalize all the time]
(Wendy C., Kroch corpus)

This ordering is not surprising as kind-defining RCs share properties of both restrictive and (especially) nonrestrictive RCs (see Cinque to appear, Chapter 3).

4. The merge positions of unmarked (*che/cui*) and marked (*art.* + *qual-*) restrictive RCs

In Italian, when marked and unmarked restrictive RCs co-occur, marked (*art.* + *qual-*) restrictives have to follow unmarked (*che/cui*) restrictives (Cinque 1982: 267):

(7) Italian

- a. Gli studenti [**che** conoscono bene il tedesco]
The students that know well the German
[ai **quali** potrete rivolgervi] sono pochi].
to.the which you can.turn are few
'The students that know German well who you can turn to are few.'
- b. Gli studenti [i **quali** conoscano bene il tedesco]
The students the which know well the German
[a **cui** potrete rivolgervi] sono pochi].
to who you can.turn are few
'The students who know German well that you can turn to are few.'

5. The merge position of restrictive and of amount/maximalizing RCs

In Chapter 1: §1.5 of Cinque (to appear) I made the simplifying assumption that restrictive RCs and amount/maximalizing RCs are merged in the same position, between demonstratives/determiners and cardinal numerals. There is, however, some indication that the two types may be merged in two distinct positions. This comes from their relative order when they co-

occur. As with Jackendoff's (1977) conclusion that nonrestrictive RCs are merged higher than restrictive RCs, based on the latter having to be closer to the head when they co-occur, I take restrictive RCs to be merged higher than amount/maximalizing RCs as bona fide amount/maximalizing RCs, like those involving a *there*-existential clause, appear to have to occur closer to the head than an ordinary restrictive RC. See the contrast between (8a) and (8b):

- (8) a. (?)I suddenly noticed [the three books that there were on your desk
desk
[that had earlier been on my desk]]. (Grosu 2012: 7, ex. (8)) vs.
- b. *?I suddenly noticed [the three books that had earlier been on
my desk
[that there were on your desk]]. (Peter Cole, p.c.)

6. The merge position of infinitival RCs

To judge from Sag (1997: 470), who gives the contrasts in (9)–(10), and Larson & Takahashi (2007: §4.3), and Douglas (2016: 169), who give similar contrasts (see (11) and (12), respectively), infinitival RCs are lower (closer to the NP) than finite restrictive RCs:

- (9) a. The only person [(for us) to visit] [whose kids Dana is willing
to put up with] is Pat.
b. *The only person [whose kids Dana is willing to put up with]
[(for us) to visit] is Pat.
- (10) a. One book [for us to read] [that Leslie praised] was Sense and
Sensibility.
b. *One book [that Leslie praised] [for us to read] was Sense and
Sensibility.
- (11) a. Alice spoke to the dealer [to buy tickets from] [that Mary
mentioned].
b. *?Alice spoke to the dealer [that Mary mentioned] [to buy
tickets from].
- (12) a. That is the book [to read] [that I was about to sell].
b. ??That is the book [that I was about to sell] [to read].

7. The merge position of reduced participial RCs

Pre-nominal relative clauses in head-final languages are often participial (see for example the case of the Caucasian languages Archi and Tsez), though this is by no means general (pace Keenan 1985: §2.5).⁸ Their peculiarity as opposed to the participial RCs of European languages is that their relativization possibilities are not limited to relativizing the external argument in the case of present participles or the internal argument in the case of past participles. In many languages they may also occur between demonstratives and cardinal numerals, like pre-nominal finite restrictive RCs. Participial relative clauses in Germanic, Slavic and Romance SVO languages are instead severely limited in the arguments that they can relativize and appear to be merged below cardinal numerals. Rijkhoff (1998: 362) explicitly says that “[i]n Dutch (as well as e.g. in German and Frisian) the proposed participial construction follows the demonstrative and the numeral” (and, we may add, precedes “direct modification” adjectives, in the sense of Sproat & Shi 1990 and Cinque 2010). See the examples in (17) and (18), from German, (19)–(21) from English, and in (22) from Bulgarian:⁹

(17) **German** (Walter Schweikert, p.c.)

- a. diese **drei** [in ihren Büros arbeitenden] Männer
these three in their office working men
- b. ??diese [in ihren Büros arbeitenden] **drei** Männer
‘these three men working in their office’

⁸ Pre-nominal RCs are in fact reported to be finite in many head-final languages. See the case of the Cushitic languages Afar (Bliese 1981: §2.4) and Galla (Oromo) (Mallinson and Blake 1981: 288); of the Omotic language Maale (Amha 2001: 162); of the Munda language Kharia (Peterson 2011: 488); of the Iranian language Sarikoli (Kim 2014: §3.3.1); of the Papuan languages Awtuw (Feldman 1986: 164), Gahuku (Reesink 1987: 217f), Menggwa Dla (De Sousa 2006: 420), Mian (Fedden 2007: §6.4.5), Oksapmin (Loughnane 2009: 196), Tauya (McDonald 1990: 289ff), Usan (Reesink 1987: 217) and Yimas (Foley 1991: 420), of the Caucasian languages Laz (Lacroix 2009: 755), Abkhaz (Lehmann 1984: 72) and Chechen (Komen 2007: 1); of the language isolate Kusunda (Watters 2006: ch. 9); among many others. It would be interesting to know how many languages have finite pre-nominal RCs and how many non-finite pre-nominal RCs, and especially what the two options correlate with.

⁹ Romance is less revealing in that participial reduced RCs are (virtually) only post-nominal (Dem Num (A) N (A) RC_{reduced} – cf. Cinque 2010: 70), so that their position relative to numerals and adjectives is not directly observable. Nonetheless, the fact that in the presence of a finite restrictive RC they have to be closer to the head than the finite restrictive (cf. Vergnaud 1974: 173ff; Kayne 1994: 97) may be taken as an indication that they are lower than finite restrictives, especially if they lack a CP.

- (18) **German** (Walter Schweikert, p.c.)
- a. der [kürzlich angekommen] **ehemalige** Botschafter von
the recently arrived former ambassador of
 Chile
Chile
- b. ??der **ehemalige** [kürzlich angekommen] Botschafter von
 Chile [non-parenthetical]
 ‘the recently arrived former ambassador of Chile’
- (19) **English** (Tim Stowell and Christina Tortora, p.c.)
- a. these (other) two [recently completed] plays
- b. *?these (other) [recently completed] two plays
- (20) **English** (Tim Stowell and Christina Tortora, p.c.)
- a. (other) two [recently completed] plays
- b. *(other) [recently completed] two plays (cf. (Other) [recently completed] plays)
- (21) **English** (Tim Stowell and Christina Tortora, p.c.)
- a. the three [recently arrived] former ambassadors of Chile¹⁰
- b. *?the three former [recently arrived] ambassadors of Chile
- (22) **Bulgarian** (Iliyana Krapova, p.c.)
- a. tezi **trima** [naskoro pristignali] **bivši** poslanici
these three recently arrived former ambassadors
 ot Chili
 of Chile

¹⁰ Also see Kayne (2005: 66) (and Kayne 1994: 99 for the reduced relative clause status of *recently arrived*). We would interpret the grammaticality of *that beautiful recently arrived letter* (Kayne 2005: 66) vs. the ungrammaticality of (21b) above as due to the possibility for *beautiful*, though not for *former*, to have a reduced relative clause source (see Cinque 2010 for discussion). Apparently, in Chinese RCs cannot be merged below APs (even those followed by *de*), as contrasts such as (i), noted in Lu (1998: 54) seem to indicate (cf. also Lu 1990: 21):

- (i) a Susumu de san-ben Cyril du-guo de lan de shu
 S. DE three-CL C. read-Perf DE blue DE book
 ‘Sam’s three blue books that Cyril read’
- b *?Susumu de san-ben lan de Cyril du-guo de shu

- b. *?tezi [naskoro pristignali] **trima bivši** poslanici ot Chili
- c. *tezi **trima bivši** [naskoro pristignali] poslanici ot Chili
'these three recently arrived former ambassadors of Chile'

Pronominals can be modified by finite nonrestrictives (23a), but apparently not by finite restrictive nor by reduced RCs, (23b-c) (Megan Rae, p.c.):

- (23) a. He, who had recently arrived, added in his two cents and the argument continued.¹¹
- b. *The he who had recently arrived added in his two cents and the argument continued.¹²
- c. *A recently arrived he added in his two cents and the argument continued.

Different is the case of proper names, which can under the appropriate conditions be modified by all three types of RCs, see (24a-c) (Megan Rae, p.c.):

- (24) a. John, who had recently arrived, added in his two cents and the argument continued.
- b. The John who you know is not the one that I know.
- c. A recently arrived John added in his two cents and the argument continued.

The same state of affairs obtains in Italian, German (Roland Hinterhölzl, p.c.) and Bulgarian (Iliyana Krapova, p.c.). This can possibly be understood if pronominals are merged in the DP above the merge position of both restrictive and reduced RCs, while proper names are merged in NP (though they can raise to DP under certain conditions – Longobardi 1994).¹³

¹¹ This case should be distinguished from such light headed free relative clauses as *He/She who says that is wrong*.

¹² Kayne (2017: fn. 47) accepts cases like *That's not the you that everybody used to love*, which unlike (23b), involves stages of the individual referred to by the pronominal, and thus qualifies as a restrictive relative clause.

¹³ I assume that because NPs move to Spec,DP rather than as N°s to D° (cf. Giusti 2002: §3.4) they can be complex: *la stessa/la sola Lucia di Lammermoor* 'Lit.: L. of L. herself/ the only L.of L.' vs. *Lucia di Lammermoor, stessa/sola* † 'L. di L. only/herself'.

In some languages, pre-nominal RCs appear in the order Dem Num RC A N even if they can relativize more positions than those relativizable in the reduced RCs of Germanic, Slavic and Romance. This is, for example, the case of SOV Karata, an East Caucasian language (see (25)), of SVO Mandarin Chinese (another position being the one that precedes demonstratives) (see (26a-b)), and of T'in, a Khmuic (Mon-Khmer) language, showing the mirror-image order N A RC Num Dem (see (27)):

(25) **Karata** (East Caucasian; Testelec 1998: 277)¹⁴

hab k'eda [dena raxw-araj] č'ikororaj igruška-bdi...
this two I bring-PRT nice toy-PL
 'these two nice toys which I had brought...'

(26) **Mandarin Chinese** (adapted from Lu 1990: 4, 20)

a. na 2-ben [Lisi mailai de] youqu de yuyanxue shu
those two-CL L. bought DE interesting DE linguistic book
 'those two interesting linguistic books that Lisi bought'

b. [Lisi mailai de] na 2-ben youqu de yuyanxue shu
L. bought DE those two-CL interesting DE linguistic book
 'those two interesting linguistic books that Lisi bought'

(27) **T'in** (Mon-Khmer; Alves 2001: 5)¹⁵

siŋ kluak ?əŋ [bakεεw thoŋ] piäi naŋ ?əen pəl.
pig white I [Mr. Kaew buy] two CLF that die
 'The two white pigs of mine (that) Mr. Kaew bought died.'

¹⁴ According to Kibrik (1996: 153) this is also the position of (participial) RCs in Godoberi, another East Caucasian language, although he says that heavy participial relative clauses tend to occur leftmost in the NP, which appears to reflect the general long-before-short tendency of head-final languages (cf. Yamashita and Chang 2001), the mirror image of the short-before-long tendency of head-initial languages. See Kibrik's example (14), given here as (i):

(i) [im-u-di kote se=b=a b=aXi-bu] ha=b ľabu=da-la
 [father-OBL-ERG little before N=buy.PST-PART] this=N three-CARD-COLL
 b=eč'uXa X.ani
 N=big horse
 'these three big horses, recently bought by father'

¹⁵ The same order is attributed by Simpson (2005: 806) to Khmer.

How are (Germanic, Slavic and Romance) reduced (participial) RCs ordered with respect to finite restrictive RCs? If the former are lower than cardinal numerals and the latter are higher, one should expect the former to be closer to the head than finite restrictives.¹⁶

Putting together these data, we arrive at the following structure of Merge for (finite) non-integrated and integrated nonrestrictive, (finite) restrictive, amount, infinitival and ‘reduced’ (participial) RCs:

- (28) $\text{RC}_{\text{non-integr nonrestr}} \dots [\text{RC}_{\text{integr nonrestr}} \text{F}^\circ [\text{DemP F}^\circ [\text{RC}_{\text{(marked)finrestr}} \text{F}^\circ$
 $[\text{RC}_{\text{(unmarked)finrestr}} \text{F}^\circ [\text{RC}_{\text{amount}} \text{F}^\circ [\text{RC}_{\text{infin}} \text{F}^\circ [[\text{NumP F}^\circ [\text{RC}_{\text{reduced(partic)}} \text{F}^\circ$
 $\text{F}^\circ [\text{AP F}^\circ [\text{NP}]]]]]]]]]]]]]$

Larson and Takahashi (2007) observe that prenominal relatives in Chinese (for which cf. Del Gobbo 2005), Japanese, Korean and Turkish exhibit ordering preferences based on whether they express stage-level versus individual-level properties. They found that stage-level relatives are higher than individual-level relatives (if both co-occur individual-level reduced RCs occur closer to N). Reduced RCs in Italian, and, likely, in languages where they are post-nominal, appear to show the same:

¹⁶ Even though Sag (1997: 471) reports that for him in English “reduced relatives may precede or follow *wh*-relatives (including *that* relatives)” (see his examples (i) and (ii)), in (my) Italian reduced RCs interpreted restrictively need to be closer to the head than finite restrictive RCs (see (iii)):

- (i) a. The bills [passed by the House yesterday] [that we objected to] died in the Senate.
 b. The bills [that we objected to] [passed by the House last week] died in the Senate.
- (ii) a. The only people [being added to our group] [who were at Harvard] are Jones and Abrams.
 b. The only people [who were at Harvard] [being added to our group] are Jones and Abrams.
- (iii) a. I soli ragazzi [invitati alla festa] [che ho riconosciuto]
The only boys invited to the party that I recognized
 erano i suoi studenti
were his students
- b. *I soli ragazzi [che ho riconosciuto] [invitati alla festa] erano i suoi studenti
 Perhaps (ib) and (iib) sound possible if understood nonrestrictively or as parenthetical restrictive RCs (in Stowell’s 2005 sense).

(29) **Italian**

a. Le uniche persone amanti del teatro incontrate da
The sole persons loving of.the theater met by
 me ieri sono loro.
me yesterday are them
 ‘They are the only people who love the theater who I met
 yesterday.’

b. ??Le uniche persone incontrate da me ieri amanti
The sole persons met by me yesterday loving
 del teatro sono loro.
of.the theater are them
 ‘They are the only people who I met yesterday who love the
 theater.’

Compare (30), the finite counterpart of (29b):

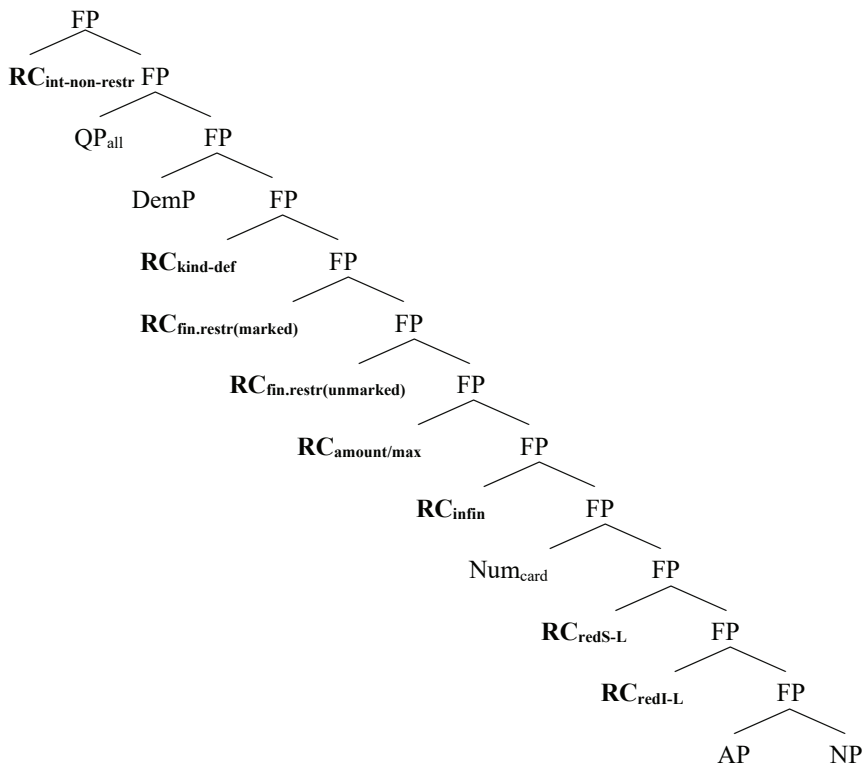
(30) Le uniche persone che ho incontrato ieri che amano
The sole persons that I have.met yesterday that love
 il teatro sono loro.
the theater are them.
 ‘They are the only people who I met yesterday who love the
 theater.’

If correct, then, these observations suggest a more fine-grained structure, where reduced RCs occupy distinct positions depending on whether they are in the scope of a generic (individual-level) or an existential (stage-level) operator: ...[NumP F° [RC_{redS-L} F° [RC_{redI-L} F° [AP F° [NP]]]]].

This gives the overall hierarchy seen in (31):¹⁷

¹⁷ The FPs (Functional Projections) in (31) are unspecified labels projected from a head F, not indicated in (31).

(31)



References

- Alves, Mark J. 2001. Noun phrase structure in Mon-Khmer languages. Handout for a presentation made at the Academia Sinica in Taiwan in April of 2001. https://www.academia.edu/12735863/Noun_Phase_Structure_in_Mon-Khmer_Languages.
- Amha, Azeb. 2001. *The Maale language*. Leiden: CNWS Publications, Research School of Asian, African and Amerindian Studies. <https://openaccess.leidenuniv.nl/handle/1887/36408>.

- Arsenijević, Boban & Martina Gračanin-Yuksek. 2016. Agreement and the structure of relative clauses. *Glossa: a Journal of General Linguistics* 1(1). 17. doi:10.5334/gjgl.12.
- Benincà, Paola. 2012. Frasi relative e strutture copolari. In Vincenzo Orioles & Paolo Borghello (eds.), *Per Roberto Gusmani. Studi in ricordo*, 251–267. Udine: Forum.
- Benincà, Paola and Guglielmo Cinque. 2014. Kind-defining relative clauses in the diachrony of Italian. In Paola Benincà, Adam Ledgeway & Nigel Vincent (eds.), *Diachrony and dialects: Grammatical change in the dialects of Italy*, 257–278. Oxford: Oxford University Press. doi:10.1093/acprof:oso/9780198701781.003.0013.
- Bliese, Loren. 1981. *A generative grammar of Afar*. Arlington: Summer Institute of Linguistics and the University of Texas. <http://www.sil.org/acpub/repository/15387.pdf>.
- Cinque, Guglielmo. 1982. On the theory of relative clauses and markedness. *The Linguistic Review* 1. 247–294. doi:/10.1515/tlir.1982.1.3.247. doi: 10.1515/tlir.1982.1.3.247. [Reprinted, with corrections, in Cinque 1995: 54–103.]
- Cinque, Guglielmo. 1995. *Italian syntax and universal grammar*. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511554261.
- Cinque, Guglielmo. 2005. Deriving Greenberg's universal 20 and its exceptions. *Linguistic Inquiry* 36. 315–332. doi:10.1162/0024389054396917.
- Cinque, Guglielmo. 2008. Two types of nonrestrictive relatives. In Olivier Bonami & Patricia Cabredo Hofherr (eds.), *Empirical Issues in Syntax and Semantics* 7, 99–137. Paris: CNRS.
- Cinque, Guglielmo. 2010. *The syntax of adjectives. A comparative study*. Cambridge, MA: MIT Press.
- Cinque, Guglielmo. To appear. *The syntax of relative clauses. A unified analysis*. Cambridge: Cambridge University Press.
- Del Gobbo, Francesca. 2005. Chinese relative clauses: Restrictive, descriptive or appositive? In Laura Brugè, Giuliana Giusti, Nicola Munaro, Walter Schweikert & Giuseppina Turano (eds.), *Contributions to the XXX Incontro di Grammatica Generativa*, 287–305. Venezia: Libreria Editrice Cafoscarina. <http://lear.unive.it/jspui/handle/11707/757>.
- Demirdache, Hamida. 1991. *Resumptive chains in restrictive relatives, appositives and dislocation structures*. Cambridge, MA: MIT PhD dissertation.
- de Sousa, Hilário. 2006. *The Menggwa Dla language of New Guinea*. Sydney University of Sydney PhD dissertation. <http://ses.library.usyd.edu.au/handle/2123/1341>.
- Douglas, Jamie. 2016. *The syntactic structures of relativization*. Cambridge: Cambridge University PhD dissertation. <http://ling.auf.net/lingbuzz/003182>.

- Emonds, Joseph. 1979. Appositive relatives have no properties. *Linguistic Inquiry* 10. 211–243.
- Fedden, Olcher Sebastian. 2007. *A grammar of Mian, a Papuan language of New Guinea*. Melbourne: University of Melbourne PhD dissertation. <http://repository.unimelb.edu.au/10187/2044>.
- Feldman, Harry. 1986. *A grammar of Awtuw*. Canberra, Australia: The Australian National University.
- Foley, William A. 1991. *The Yimas language of New Guinea*. Stanford: Stanford University Press.
- Giusti, Giuliana. 2002. The functional structure of noun phrases. A bare phrase structure approach. In Guglielmo Cinque (ed.), *Functional structure in DP and IP. The cartography of syntactic structures, volume 1*, 54–90. New York: Oxford University Press.
- Grosu, Alexander. 2000. Type resolution in relative constructions. Featural marking and dependency encoding. In Artemis Alexiadou, Paul Law, André Meinunger & Chris Wilder (eds.), *The syntax of relative clauses*, 83–120. Amsterdam: John Benjamins. doi:10.1075/la.32.03gro.
- Grosu, Alexander. 2012. Towards a more articulated typology of internally headed relative constructions: The semantics connection. *Language and Linguistics Compass*. 1–30. doi:10.1002/lnc3.346.
- Ishizuka, Tomoko. 2007. Internal structure of the DP in Javanese. Department of Linguistics, UCLA, ms.
- Ishizuka, Tomoko. 2008. Restrictive and non-restrictive relative clauses in Japanese: Antisymmetric approach. Department of Linguistics, UCLA, ms. <http://ling.auf.net/lingbuzz/000808>
- Jackendoff, Ray. 1977. *X-bar syntax: A study of phrase structure*. Cambridge, MA: MIT Press.
- Kameshima, Nanako. 1989. *The syntax of restrictive and non-restrictive relative clauses in Japanese*. Madison: University of Wisconsin PhD dissertation.
- Kamio, Akio. 1977. Restrictive and non-restrictive relative clauses in Japanese. *Descriptive and Applied Linguistics* (Tokyo: International Christian University) 10. 147–168.
- Kayne, Richard S. 1994. *The antisymmetry of syntax*. Cambridge, MA: MIT Press.
- Kayne, Richard S. 2005. Some notes on comparative syntax, with special reference to English and French. In Guglielmo Cinque & Richard S. Kayne (eds.), *The Oxford handbook of comparative syntax*, 3–69. New York: Oxford University Press. doi:10.1093/oxfordhb/9780195136517.013.0001.
- Kayne, Richard S. 2017. Clitic doubling and agreement in French hyper-complex inversion. New York University, ms. <https://as.nyu.edu/content/dam/nyu-as/linguistics/documents/kayne-publications/Kayne0217CliticDoubling.pdf>.

- Keenan, Edward. 1985. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description. Vol. II: Complex constructions*, 141–170. Cambridge: Cambridge University Press.
- Kibrik, Alexander E. (ed.). 1996. *Godoberi*. München: Lincom Europa.
- Kim, Young-Kook. 1997. Agreement phrases in DP. *UCL Working Papers in Linguistics* 9. 281–302.
- Kim, Deborah. 2014. *Subordination in Sarikoli*. Grand Forks: University of North Dakota MA thesis. http://arts-sciences.und.edu/summer-institute-of-linguistics/theses/_files/docs/2014-kim-deborah.pdf.
- Komen, Erwin R. 2007. The relative clause in Chechen. Abstract of a paper presented at the Conference of the Languages of the Caucasus, 7-9 December 2007, Department of Linguistics, Max Planck Institute for Evolutionary Anthropology. <http://www.eva.mpg.de/lingua/conference/07-CaucasusConference/pdf/final%20abstracts%20english/KomenAbstract.pdf>.
- Lacroix, René. 2009. *Description du dialecte laze d'Arhavi (caucasique du sud, Turquie). Grammaire et textes*. Université Lumière Lyon 2 PhD dissertation. http://theses.univ-lyon2.fr/documents/lyon2/2009/lacroix_r/pdfAmont/lacroix_r_these.pdf.
- Larson, Richard & Naoko Takahashi. 2007. Order and interpretation in prenominal relative clauses. In Meltem Keleşir & Belkiz Öztürk (eds.), *Proceedings of the 2nd Workshop on Altaic Formal Linguistics (WAFL 2)*, MIT Working Papers in Linguistics 54, 101–120. Cambridge, MA: MIT. <http://semlab5.sbs.sunysb.edu/~rlarson/wafl2.pdf>.
- Lehmann, Christian. 1984. *Der Relativsatz. Typologie seiner Strukturen, Theorie seiner Funktionen, Compendium seiner Grammatik*. Tübingen: Narr.
- Longobardi, Giuseppe. 1994. Reference and proper names: A theory of N-movement in syntax and logical form. *Linguistic Inquiry* 25. 609–65.
- Loughnane, Robyn. 2009. *A grammar of Oksapmin*. Melbourne: The University of Melbourne PhD dissertation. <http://repository.unimelb.edu.au/10187/4788>.
- Lu, Bingfu. 1990. The structure of Chinese nominal phrases. Storrs: University of Connecticut MA thesis. (Published in M. Saito (ed.), *Comparative Studies on the Structure of Noun Phrases*, 1–41. Storrs: Department of Linguistics, University of Connecticut, research report.)
- Lu, Bingfu. 1998. *Left-right asymmetries of word order variation: A functional explanation*. University of Southern California PhD dissertation.
- Mallinson, Graham & Barry J. Blake. 1981. *Language typology. Cross-linguistic studies in syntax*. Amsterdam: North-Holland.
- MacDonald, Lorna. 1990. *A grammar of Tauya*. Berlin: Mouton de Gruyter. doi:10.1515/9783110846027.

- McCawley, James D. 1998. *The syntactic phenomena of English*. 2nd edn. Chicago: University of Chicago Press.
- Nguyen, Tuong Hung. 2004. *The structure of the Vietnamese noun phrase*. Boston University PhD dissertation.
- Radford, Andrew. 2019. *Relative clauses: Structure and variation in everyday English*. Cambridge: Cambridge University Press. doi:10.1017/9781108687744.
- Reesink, Ger P. 1987. *Structures and their functions in Usan. A Papuan language of Papua New Guinea*. Amsterdam: John Benjamins. doi:10.1075/slcs.13.
- Rijkhoff, Jan. 1998. Order in the noun phrase of the languages of Europe. In Anna Siewierska (ed.), *Constituent order in the languages of Europe*, 321–382. Berlin: Mouton de Gruyter. doi:10.1515/9783110812206.321.
- Sag, Ivan A. 1997. English relative clause constructions. *Journal of Linguistics* 33. 431–484. doi:10.1017/S002222679700652X.
- Simpson, Andrew. 2005. Classifiers and DP structure in Southeast Asia. In Guglielmo Cinque & Richard S. Kayne (eds.), *The Oxford handbook of comparative syntax*, 806–838. New York: Oxford University Press. doi:10.1093/oxfordhb/9780195136517.013.0018.
- Sproat, Richard & Chinlin Shih. 1990. The cross-linguistics distribution of adjectival ordering restrictions. In Carol Georgopoulos & Roberta Ishihara (eds.), *Interdisciplinary approaches to language: Essays in honor of S-Y Kuroda*, 565–593. Dordrecht: Kluwer. doi:10.1007/978-94-011-3818-5_30.
- Stowell, Tim. 2005. Appositive and parenthetical relative clauses. In Hans Broekhuis, Norbert Corver, Riny Huybregts, Ursula Kleinhenz, Jan Koster (eds.), *Organizing grammar. Linguistic studies in honor of Henk van Riemsdijk*, 608–617. Berlin: Mouton de Gruyter. doi:10.1515/9783110892994.608.
- Testelec, Yakov G. 1998. Word order in Daghestanian languages. In Anna Siewierska (ed.), *Constituent order in the languages of Europe*, 257–280. Berlin: Mouton de Gruyter. doi:10.1515/9783110812206.257.
- Vergnaud, Jean-Roger. 1974. *French relative clauses*. Cambridge, MA: MIT PhD dissertation.
- Watters, David E. 2006. Notes on Kusunda grammar. A language isolate of Nepal. *Himalayan Linguistics Archive* 3. 1–182. <https://escholarship.org/uc/item/83v8d1wv>.
- Wiltschko, Martina. 2012. What does it take to host a (restrictive) relative? *Working Papers of the Linguistic Circle of the University of Victoria* 21. 100–145. <https://journals.uvic.ca/index.php/WPLC/article/view/7815>.
- Yamashita, Iroko & Franklin Chang. 2001. “Long before short” preference in the production of a head-final language. *Cognition* 81. B45–B55. doi:10.1016/S0010-0277(01)00121-4.