On Double-Headed Relative Clauses Guglielmo Cinque –University of Venice

The present article documents the presence in a number of languages and language families (as well as in various child languages) of relative clauses displaying simultaneously an internal and an external head, and considers the implications of this finding for the general theory of relative clauses.

Introduction. Dryer (2005), in addition to that of externally headed pre-nominal, externally headed post-nominal, internally headed, headless (or 'free'), correlative, and adjoined, relative clauses (RCs), reports the existence of a further type "represented by a single language, Kombai (Trans-New Guinea; Papua, Indonesia)", which he refers to as *double-headed*. As he phrases it, "relative clauses in Kombai combine the features of externally-headed and internally-headed relative clauses in a single structure: they have both an external head noun and a noun corresponding to the head noun inside the relative clause. While the two nouns are sometimes the same, as in (6a) [=(1a)], the external noun is usually more general than the one inside the relative clause, as in (6b) [=(1b)], where the external noun is simply *ro* 'thing'."(p.366). Dryer cites (1)a and b, from de Vries (1993,78 and 77) [to (1)b, I added the missing main predicate]. (1)c-e are additional examples given in de Vries (1993, 77ff.):

(1)a. [[doü adiyano-no] doü] deyalukhe [[sago give.3Pl.NONFUT-CONN] sago] finished.ADJ

^{&#}x27;The sago that they gave is finished.'

- b. [[gana gu fali-kha] ro] na-gana-y-a
 [bush.knife ^{2SG} carry-go.2sg.NoNFUT] thing] my-bush.knife-tr-pred

 'The bush knife that you took away, is my bush knife.'
- c. [[yare gamo khereja bogi-n-o] rumu] na-momof-a

 [[old.man join.ss work DUR.do.3SG.NF-TR-CONN] person] my-uncle-PRED

 'The old man who is joining the work is my uncle
- d. [[kho khumolei-n-o] mogo]...

 [[man die.3SG.NF-TR-CONN] person]

 'The man who died...'
- e. [[ai fali-khano] ro] nagu-n-ay-a

 [[pig carry-go.3PL.NF] thing] our-TR-pig-PRED

 'The pig they took away is ours'

Before concluding that these are genuine instances of double-headed RCs, an alternative analysis must be excluded: that of a relative-correlative construction, in which an internally headed RC is not followed by an external Head, but is left dislocated and resumed in the main clause by an 'anaphoric' full DP, which may give the impression of being an additional, external, Head. Were that the case, (1)a would have the representation in (2) (on correlative relatives, see Cinque 2009 and references cited there):

(2) [[DP[RC doü adiyano-no]] [IP doü deyalukhe]] 'the sago that they gave, (that) sago is finished'

This may in fact be a more plausible analysis for the apparently double-headed RCs of other languages.

For example, in both Mauwake (Papuan – Berghäll 2010), which appears to have only internally headed RCs¹, and Kobon (Papuan - Davies 1981), which has both internally headed and prenominal externally headed RCs, the analysis of some of their RCs as double-headed looks dubious given that both the "internal" and the "external" Head can be followed by a demonstrative. See (3)a-b. They rather seem to instantiate a relative-correlative clause where the left dislocated relative is an internally headed RC:

(3)a. [fofa ikiw-e-mik *nain*], fofa *nain* yo me paayar-e-m (Mauwake - Berghäll 2010,319) [day go-PA-1/3p *that*] day *that*1 1s.UNM not know-PA-1s 'The day that they went, I do not know the day/date'

b. [Ñi **pai** (u) pak-öp] **pai** (u) au-ab

[boy **girl** (that) strike-perf.3s] **girl** (that) come-pres.3s

'The girl whom the boy hit is coming'

For Kombai, however, there seems to be positive evidence that the rightmost of the two NPs is the external Head of the RC, modified by the RC containing an internal Head. The evidence comes from the distribution of the connective marker –o. This marker is characteristically found between modifiers of a Noun(P) and that Noun(P). The fact that it also found between the RC and the NP following it (being obligatory with RCs modifying *rumu* 'person' and optional with RCs modifying *ro* 'thing' - de Vries 1993,79), suggests that the rightmost NP is indeed the external Head of the DP containing the RC, and not an 'anaphoric' DP resuming a left dislocated DP containing the RC, as in correlative relatives.

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¹ Pace Berghäll (2010), where such examples as (2) are analysed as double-headed, with the comment: "It is possible to retain the ANTNP, in which case the relative clause is not replacive [internally headed] but pre-nominal. In Mauwake this is not common; it is used when the noun phrase that is relativised is given extra emphasis." (p.319).

The limited goal of this article is to document seemingly bona-fide double-headed RCs in other languages and language families, even when they do not constitute the prevalent RC strategy (as is apparently the case for Kombai²), but only an alternative strategy, available in selected contexts.³ Some implications of double-headed RCs for the general analysis of RCs will be briefly discussed in the concluding section.

I will for convenience group the languages displaying overtly double-headed RCs in the following three classes.

The first is represented by a number of OV languages, belonging to the Papuan, the Niger-Congo, the Tibeto-Burman, the Northwest Caucasian, and the Altaic families, whose basic RC type is of the *internally headed* one or the *pre-nominal* externally headed one, or both.

The second is represented by VO and OV languages with externally headed *post-nominal* RCs (with or without wh-pronouns), belonging to the Papuan, the Austronesian, the Chadic, the Pama-Nyungan, and the Indo-European, families.

(i) [baju rakhumade] emukhe

[shirt buy.1SG.NF] lost

'The shirt I bought is lost'

To judge from his example (325), headless, or 'free', RCs appear to involve the same grammatical heads:

(ii) [[khe-lu khakhe-n-o] **rumu**],...

[[his-word listen.3SG.NF-TR-CONN] person]

'Whoever listens to him,...'

² de Vries (1993) states that *most* RCs, in addition to the internal head, have either *ro* 'thing' (for non-human entities) or *rumu* 'person' (for human entities) as external heads (when the external head does not repeat the internal head, as in (1)a). He dubs them as 'grammatical heads' (drawn from a limited set of functional nouns), but also adds that in his data there are also examples "where there is no grammatical head noun", as in (i), where there is apparently just an internally headed RC:

³ The evidence is based on the description found in grammars or articles dealing with specific languages and would need to be corroborated by further investigation on such languages.

The third is represented by various child languages.

I take up each case in turn.

1. Double-headed RCs in OV languages with internally headed or pre-nominal externally headed RCs.

1.1. In addition to the (non-Austronesian) Papuan OV language Kombai, another (non-Austronesian) Papuan OV language which appears to document doubled-headed RCs is **Yagaria**⁴:

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(4) a. [[hemeti yo' gi-ta su ho-d-u-pa'] yo]-se' (Renck 1975,174)
[[today house build-1.PL finish-PAST-1.PL-PIV] house]-BEN
'...for the house which we finished building today..'
b. [[ha eli-d-a-ma'] ha-mo] akoupa hi-da b-ei-ma-to'...(Renck 1975,220)<sup>5</sup>
[[mushroom take-PAST-3.PL-PIV] mushroom-CON] sort out-3.PL live-3.PL-PIV-RC...
'...while they were sorting out the mushrooms they had gotten...'
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appears to have internally headed ((i)a), pre-nominal externally headed ((i)b), and headless ((i)c), RCs (see Renck 1975,

§3.2.2.15) (PIV= pivotal marker;QD= qualitative derivative):

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(i)a yo' ne-k-i-ma' (Renck 1975,207)

house PROG-build-3.PL-PIV

'the house they are building' or 'they who are building a house'
b ega fili-te' yale (Renck 1975,208)

yesterday die-QD people

'the people who died yesterday..'
c Huva-gayagati' e-d-a-ma' (Renck 1975,207)

Lufa-ABL come-PAST-3.PL-PIV

'They who came from Lufa..'
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⁴ In addition to double-headed RCs (which constitute a significant number of Renck's 1975 examples of RCs), Yagaria

⁵ Renck indicates the entire sequence [ha eli-d-a-ma' ha-mo] as the object of the following predicate.

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c.[[legepa abade bogo p-agavei-na h-ei-ma'] abade-mo] ou'ha-e-ga-pi ...(Renck 1975,221)<sup>6</sup>

[[big girl one them-lead-3.SG go.up-3.SG-PIV] girl-CON] sleep-3.SG-NI-they

'...one big girl which [sic] had taken them up, fell asleep, and they...'

d. [[hemeti dete' ge hu-d-u-ma'] ge] (Renck 1975,173)

[[today morning word say-PAST-1.SG-PIV] word]

'the word I spoke this morning'
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Another is possibly **Usan**. Reesink (1983,230) states that Usan has both pre-nominal ((5)a) and replacive [internally headed] ((5)b) RCs, the latter being more frequent (also see Reesink 1987, §6.2):

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(5)a. [[iyau got-er] bur eng] wâ-râm-umei (Reesink 1983,231)
[[dog bite-3s.FP] pig the] 3s-hit-1s.NP
'I hit the pig that bit the dog.'
b. [[munon qemi bau-or] eng] ye me ge-au... (Reesink 1983,230)
man bow take-3s.FP the I not see-NOM
'I did not see the man who took the bow' or 'I did not see the bow which the man took..'
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And says (1983,230; 1987,220) that a way to disambiguate (5)b (in favour of the second reading) would be either to front the object followed by a determiner ((6)a) or to retain the antecedent NP ((6)b), which he gives as a double-headed RC:

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⁶ Renck indicates the entire sequence [*legepa abade bogo p-agavei-na h-ei-ma' abade-mo*] as the subject of the following predicate.

(6)a. [[qemi eng munon bau-or] eng] ye me ge-au...

bow the man take-3s.FP the I not see-NOM

'I did not see the bow which the man took'

b. [[munon **qemi** bau-or] **qemi** eng] ye me ge-au...

[[man **bow** take-3s.FP] **bow** the I not see-NOM

'I did not see the bow which the man took'

While (6)b could be analysed as a correlative, rather than a double-headed, RC, especially given the parallel existence of sentences like (7), which are clearly correlative

(7) [[munon qemi bau-or] eng], qemi/munon eng ye me ge-au... (=(31) of Reesink 1987,220)

man bow take-3s.FP the bow/man the I not see-NOM

'Given that a man took a bow, the bow/man I didn't see'

some suggestive evidence exists that the RC in (6)b should be analysed as double-headed. Reesink states that "if the antecedent is retained, then the identical noun within the RC should not be marked with the determiner *eng*. Nor should the object in [(6)a], *qemi* 'bow', be fronted" (1987,220). Furthermore, he says that the verb of the RC in (6)b is "without final intonation and [..] there is no major pause between the RC and the HN [Head Noun] as is found in [(7)]." (1987,220).

(i) [[vegana lamana keza mihuka hora ale] vegana nene]... (Reesink 1987:218)

people good they garden work do people the

'The good people who worked in the garden...'

But more work is needed to establish this as a fact.

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⁷ Reesink (1987) mentions another (non-Austronesian) Papuan language, **Gahaku**, as one that "allows the fully expressed NPs to occur simultaneously, if the speaker needs to emphasize the, clearly topical, head noun (Deibler, pers. comm.)" (p.218), giving (i) as an example:

1.2. A second OV language family with internally headed RCs as its basic type which documents at least some double-headed RCs is the Dogon family (Niger-Congo). Double-headed RCs are attested in **Jamsay** (Heath 2008,§14.1.1), in **Najamba Dogon** (Bondu-So) (Heath 2009,§14.2.10), and in the Tabi dialect of **Toro Tegu Dogon** (Heath 2010,§14.1.12).

In Jamsay, whose basic RC is internally headed, "it is also possible to expand this core relative clause structure [..] by adding a copy of the head N (not the full head NP), as a special kind of **external head**." (Heath 2008,479), usually preceded by the Possessive marker *mà*. See (8)a-g, from Heath 2008,481f):

To judge from Oguri (1976), and Minch (1991,1992) two more (non-Austronesian) Papuan languages possibly allowing for double-headed RCs are **Isirawa** ("In Isirawa only true verbal qualification has an overt relative clause marker –*pä*. In this relative clause, any referent which is obvious to the listeners can be deleted though no referent (even the referent which is coreferential with the noun head) has to be deleted.", p.91), and **Amanab** ("A full NP may be repeated in the relative clause to represent the head noun", 1991,86;1992,155). Here too more work is needed to establish whether the RCs in these languages are genuine double-headed RCs. For other (non-Austronesian) Papuan languages displaying (some) double-headed RCs alongside externally headed *post-nominal* RCs, see section 2 below.

In addition to internally headed RCs and double-headed RCs, Jamsay also has pre-nominal and headless RCs ((i)a-b):

(Heath 2008,482)

(i)a. [ú:rⁿó íj́ɛ≡k̇ɔ-Ø] mà
$$tìw^n$$
́ɛ́]

[get.up stand.Impf≡be.Nonh.-Ppl.Nonh] Poss **tree**]

'A tree that gets up and stands'

b.
$$[[\grave{\vartheta}w^n\grave{\vartheta}-s\check{a}y^n\quad d\grave{\vartheta}:-g\acute{\vartheta}-m]$$
 $k\grave{u}^n]$ (Heath 2008,490)

[[cemetery arrive-ImpfNeg-Ppl.Pl] Def]

 $^{^{8}}$ As with the connective marker -o in Kombai, the fact that a possessive marker is usually present in Jamsay between the RC and the rightmost NP seems to ensure that the latter indeed is internal to the DP containing the RC.

^{&#}x27;those (people) who do not arrive (=go) at the cemetery'

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mà wàkàtì fú:] kò:-rɔ
(8)a.[[wàkàtì kì-ká:
                                ñɔ'w \circ [ñú lè]
                                                  tέwέ
                                                          bèrè-gó-Ø]
[time.L Rdp-grasshopper damage [millet in] inflict be.able-Impf.Neg-Ppl.Nonh] Poss time all] be.Nonh-Neg
   'There is no time when grasshoppers can not inflict damage on the millet.'
                                                                                 kɔ:-rɔ
  b. [[dà: nà-nɔ : ùrò
                           mà bèrè kùn-ó-Ø]
                                                                mà
                                                                       úró]
     [[water.jug [house Poss in be.in-Neg-Ppl.Nonh] Poss house] be.Nonh-Neg
     'There is no house that a water jug is not in.'
                   [dàná yă: mèy^n\uparrow],[ejù-n`ow^no' \epsilon:-je-bà dey], [[ejù-n`ow^no' kù^n] yo:ro mey^n\uparrow] tá:^n-`m]
  c. [[dànà-m
[[hunt-Ppl.Pl [hunt go and],[field-meat see-RecPf-3PlS if], [[field-bush Def] stalk and] shoot.Impf-Ppl.Pl
     mà dànà-`m] yɔ'≡k`ɔ
     Poss hunt.Ppl.Pl] exist≡be.Nonh
   'There are some hunters who, having gone hunting, if they have seen the wild animals, having stalked
those animals, shoot (them).'
  d. [[dògùrù sâl
                      kɔ:-rɔ-Ø
                                               kù<sup>n</sup>] mà dógúrú kù<sup>n</sup>] lè
     [[time.L prayer be.Nonh-Neg-Ppl.Nonh Def] Poss time Def] in
      '(back) in the time when there was no praying (=before Islam)'
  e. [[
          ìjὲ
                          íjέ
                                     bère:-Ø]
                                                       mà
                                                             ìjέ]
     [[ position.L 2PIS.L stand can.Impf-Ppl.Nonh] Poss position]
       'the position (or: situation) where you-Pl stand'
 f. [[nì-nìr<sup>n</sup>è wó bè
                            nár<sup>n</sup>à-Ø] ní-ŋír<sup>n</sup>é]
    [[day
              3SgO 3PlS bear.Perf] day]
    'they day on which they have borne him (=on which he was born).'
  g. [[nì-ŋìr<sup>n</sup>è
                                                           dô:-Ø
                                                                     kù] mà ní-ŋír<sup>n</sup>é]
                  ènέ
                           áγà
                                 mà
                                          úrò
                                                  wò
                 RefIP husband Poss house.Loc 3sgS reach-Perf Def | Poss day |
    [[ day
```

'The day on which she (=new bride) has arrived at her husband's house'

Though rarer than in Jamsay, double-headed RCs are also attested in Najamba Dogon (see (9), from Heath 2009,315) and in the Tabi dialect of Toru Tegu Dogon, where they are mainly limited to "semantically light spatiotemporal nouns" (Heath 2010,282); cf. (10)a-c:

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(9) [[kòŋgò ó dùmaˇ-ŋgà kà] kòŋgò] òndú-Ø koˇ y

[[thing 2SgS get-Fut.Ppl Top] thing] not.be-3SgS Emph

'There is definitely nothing that you get.'
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(10)a [[này
             ànànsá:rá níngèy be
                                   zɔ́ŋ'rɔ̀
                                              [n] này
     [[day.L European beside 3PIS fight.Impf Rel] day.L]
      'at the time when they were fighting against the whites, ...'
   b. hálì [[này ànànsá:rá tá
                                      uni'y^n ar^n a \eta  nay
                                   á
     until [[day.L European Tabi Impf go.up-Fut Rel] day.L]
     'until the day when the white was about to go up Tabi Mountain'
  c. yá bε pás's'è
                                                                           ήl
                                                                                 dèŋ]
                               [[dèŋ
                                        gà'r'è
   there 3PlO leave-Perf2-3PlS [[place.L Rel Dat KK Impf say.Impf.3PlS Rel] place.L] Dat
   'They left them there, for (= at) the place (= village) that they call Koykoyra.'
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1.3 A third OV language family which documents at least some double-headed RCs in at least some of its languages is the Tibeto-Burman family. They are reported to exist (alongside externally headed pre-nominal, internally headed, and headless RCs) in **Ronghong Qiang**⁹ ((11)), and are apparently also attested in **Sherpa** and **Tibetan** (see (12)a and (12)b):

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⁹ Similar double headed RCs are found in the Heihu and Muka varieties of Qiang (see Huang 2008,761). As Huang (2008,761) notes, "though in Kombai the double-headed relative clause is dominant, [..]in Qiang [where also pre- and post-nominal externally headed RCs and internally headed RCs, as well as headless RCs exist (GC)] it is marginal.

- (11)a [[khuə вdze le-m]_{RC} **khuə**-le:]_{NP} ha-la (Huang 2008,741) mi-ta [[dog person-dat bite exist-nom] dog-def:cl] dir-come 'The dog who would bite people is coming out' b [[zəp i ϕ t ϕ imaga zawa tshu-tshu]_{RC}(-t ϕ) zəp tha-kua]_{NP} (Huang 2008,761) [[place usually rock drop-redup(-gen)] place that-cl] 'The place where rockslides often occur' $n - xe^{I} - m$ _{RC} c [[mi qα mi-le:]_{NP} kə-ji (Huang 2008,762) DIR-scold-NOM] person]-DEF:CL go-CSM [[person 1SG 'The person who scolded me has gone'
- (12)a [[tii-mi-ti khaŋp-i-naŋ-la wotup] khaŋpa-ti] (Givón 1975,100)

 [[that-man house-of-inside-DAT be-ING] house-TOP]

 'the house inside which the man is'
- (12)b [[Peemɛ coqtsee waa-la kurka thii-pe] coqtse the] na noo-qi yin (Keenan 1985,152)

 [[P.erg table.gen under-dat cross.abs write-gen] table the.abs] I.abs buy-pres be

 'I will buy the table under which Peem made a cross'
- **1.4** Another OV language with internally headed RCs as its basic type which documents at least some double-headed RCs is the Shapsug dialect of Adyghe, a Northwest Caucasian language (see (13)a from Lander 2004, and (13)b and c from Lander (to appear) also see Lander 2010 for a general description of (Shapsug) Adyghe relative clauses). The external noun is necessarily more general than the one inside the relative clause (Yury Lander, p.c.). Cf. the situation of Kombai above.

(13)a **bzəłfəʁ-ew** ʃəne-xe-r zə-ʁe-šxe-re **?**^werz^wer-xe-r...

woman-PRED lamb-PL-ABS REL.AG-CAUS-eat-dyn chatterer-PL-ABS...

'Those women-chatterers who gave food to lambs...

b **zek'weł'-ew** jə-qale qe-z-кек^wəna-ке **ł'əҳ^wə̂zə-r** jadež qe-k'we-ž'ə-к

soldier-PRED POSS-town DIR-REL.AG-defend-PST hero-ABS home DIR-go-REVERSIVE-PST

'The hero-soldier who defended his town returned home.'

с ?ma.rə sarafan-ew p-fe-z-də-ке **ǯ'ane-r**

here.is sarafan-PRED 2SG.IO-BEN-1SG.AG-sew-PST dress-ABS

'Here is a dress-sarafan which I sewed for you'.

1.5 Japanese (Altaic), which has both externally headed pre-nominal and internally headed RCs also seems to allow for certain types of double-headed RCs. See (14)a, from Kuno (1973,237), and (14)b-c, from Inada (2009,94f):¹⁰

- (i) *[[watakusi ga okyaku-san no namae o wasurete-simatta] sono ito]..
 - I NOM **guest**'s name ACC have forgotten that person

Although Korean does not seem to allow either (14) or (i) above (Alessio Muro, p.c.), its "internally headed" RCs are followed by what looks like an external Head in the form of the functional noun *kes* 'thing':

(ii) John-i [[Mary-ka tol-ul tenci-n] kes]-ey mac-ass-ta (Kim 1996,406)

John Mary stone-Acc threw-rel thing-by was-hit.

'a guest whose name I have forgotten..'

'John was hit by the stone that Mary threw'

¹⁰ In (14)a the internal Head is a more general term than the external Head (the opposite of the Kombai and Shapsug Adyghe cases seen above). Interestingly, switching the two Heads yields an ungrammatical sentence (see (i) below, Yoshio Endo, p.c.), which might be taken to suggest that **sono ito** in (14)a is a resumptive (doubling) epithet; a moot conclusion to which we return in section 4 (especially given the fact that in other cases (see (14)c) it is the internal Head which is more specific):

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(14)a [[watakusi ga
                      sono ito
                               no namae o wasurete-simatta] okyaku-san]
               NOM that person's name ACC have forgotten]
      \prod
                                                                guest]
       'a guest whose name I have forgotten'
  b [[[Taro-ga
                                   kaseideruku] sono gaku]-no
                    aru gaku-o
                                                                  hanbun-o]
     [[[Taro-NOM a certain amount-ACC earns] that amount]-GEN half-ACC]
       'half of the amount (of money) that Taro earns'
  c [[[Taro-ga
                  100man-yen(-o) kaseidekuru | sono gaku |-no
                                                                 hanbun-o]
    [[[Taro-NOM million yen(-ACC)
                                        earns] that amount]-GEN half-ACC]
       'half of the million yen that Taro earns'
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2. Double-headed RCs in VO and OV languages with externally headed post-nominal RCs.

Four Papuan (non-Austronesian) languages with externally headed post-nominal RCs which appear to have some cases of double-headed RCs are **Abun** (see (15)), **Angaataha** ((16)), **Bine** ((17)), and **Moskona** ((18)):

(15) **Abun** (SVO -Berry and Berry 1999,162)¹¹

An ndo-bot [su-git dik yo [to men ye bok ne git su-git ne]]

3sg ask-about [food one det.I [Rel 1pl people several anaph eat food det]]

'He asked about some (kind of) food which all of us would eat'

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¹¹ Berry and Berry (1999,162) report that the double-headed strategy is not common, and is limited to non-restrictive RCs.

(16) **Angaataha** (SOV - Huisman 1981b,5)¹²

[nsɨh-urå [asɨha-t-i-s-ur-ûrå]]

[first-time [dark-be-do-IND-REL-time]]

'in the early time when it was (morally) dark'

(17) **Bine** (SOV - Fleischmann 1981,5)¹³

[Puga pui **cewe** tabe [lui **cewe** cabu a-tyaramt-Ø-i-ge]] pui cewe cabu iyeta miiji gwidape aletnena [there that **village** 3sg.s[rel **village** at INTR-arrive-P2-i-3sg.s]]that village at all good things buying 'That village at which he arrived, at that village there were all the good things to buy..'

(18) **Moskona** (SVO – Gravelle-Karn 2010,§10.1.7)¹⁴

a. Esha ofa ebrekirk(a) em-eg [mar [noga ofon ekok odu mar]] éra.

from s/he stubborn IRR-hear [thing [REL 3SGPOS father tell thing]] NEG

'The reason is [that] he is stubborn not hearing (obeying) what his father tells (him).'

[[my.uncle-eu-n.cl house-build-IND-REL-place] this-place]

'this place where my uncle built a house'

¹² While RCs in Angaataha are regularly postnominal (see Huisman 1981a,6f), one case of apparently pre-nominal double-headed RC is reported in Huisman (1981b,6), with location words (for which see Huisman 1981c):

 $⁽i) \hspace{0.2cm} \hbox{ [[ami-h-o \hspace{0.2cm} angi-mat-i-im-pipihi]} \hspace{0.2cm} s\text{-}\acute{apihi} \hspace{0.2cm} \hbox{]}$

¹³ The sentence appears to involve a double-headed left dislocated RC resumed by a full DP in the main clause; namely a correlative construction, much like the Indo-Aryan cases to be seen below. As apparent from (17), Bine, like the Canariense variety of Spanish, Latin and Bulgarian (see Brucart 1992,7; Bianchi 2000,71; and Krapova 2010,§4.2, respectively) allows phrases belonging to the RC to be fronted between the external Head and the complementizer/ (weak) relative pronoun.

¹⁴ Gravelle-Karn (2010) says "[o]ccasionally the noun itself is repeated in the RC, as in [(18)a.] where the relativized object noun *mar* is repeated, or in [(18)b.] in which the relativized possessed noun *mod* is repeated" (p.326).

b. Ergog y-éysaha jig [mod [noga ejena Okuskuimi ofon mod]].
they.DU DU-reach LOC [house [REL woman Okuskuimi 3SGPOS house]]
'They (two) reached the house which the woman Okuskuimi owned.'

Double headed RCs are apparently possible also in the Austronesian language **Kilivila** (cf. (19)), in the Chadic language **Mina** (cf. (20)), and in the Pama-Nyungan language **Yidin** (cf. (21)):

- (19) a-meya kwinini pela [**tau** [m-**to**-na e-kato'ula]] (Kilivila Senft 1986,121)¹⁵

 I-bring pills for [**man** [this-**man**-this he-be ill]]

 'I bring some pills for the man who is ill'
- (20) [skòn [nàm dzán skòn syì]] há diyà gáy kà (Mina Frajzyngier and Johnston 2005,433)¹⁶
 [thing [1DU find thing COM]] 2sg put spoil POS

 'The thing we found, you are ruining it'
- (21)a. ŋandi binaŋalnu [duŋur [duŋur wuna-nunda]] (Dixon 1977,328)¹⁷
 we.SA hear.PAST [noise.ABS [noise.ABS lie-COMP]]

¹⁶ Frajzyngier and Johnston (2005) explicitly say that "[t]he relativized object may be coded twice, once at the beginning of the clause as the head of the relative clause, and the second time after the verb, in the position of object." (p.432f). Mina has both pre- and post-nominal RCs.

¹⁵ According to Malinowski (1920,58f) *tau*, *to*, *to-tau* are actually classifiers for humans.

¹⁷ Dixon explicitly says that (21)a "features two occurrences of the common noun" (p.328), saying that there are also instances "in which at least part of the common NP occurs twice", appearing once as "a generic noun" and once as "a specific noun" (p.327) (in Dixon 2009, 335f the "generic noun" is called "classifier"). The latter case is exemplified in (21)b. This implies that in (21)c both the external and the internal Heads are possibly just classifiers. What I glossed as COMP in (21), a general subordinating suffix, is glossed as "Dative Subordinate" in Dixon (1977) and as "Relative" in Dixon (2009).

'We heard a noise, which was lying [over the whole country]'

b. ŋayu [bana] bandi:lipu [bugun bayil-punda] (Dixon 1977,327)

I.SA water.ABS find.GOING.PAST [spring.ABS come out-COMP]

'I went and found a spring coming out [of the ground]'

c. nayu wawa:1 [bana gada-nunda [gundu:ydu bana mundal-nunda]] (Dixon 1977,325)

I.SA see.PAST [water come-DAT SUBORD [brown snake-ERG water pull-COMP]]

'I saw the water coming [into the creek], being drawn up by the brown snake'

Double headed RCs appear to be possible, under certain conditions, also in a number of Indo-European VO and OV languages with externally headed *post-nominal* RCs that have wh-pronouns moved to the front of the relative clause.

In Cinque (1978,88f), examples like (22) for Italian were noted where the external head is matched by an identical phrase (preceded by the relative adjective art+*qual*-) within the RC:¹⁸

(22) Non hanno ancora trovato una **sostanza** [dalla quale **sostanza** ricavare un rimedio contro l'epilessia]

'They have not found a substance from which substance to obtain a remedy against epilepsy'

Keenan (1985,153) reports a comparable example from **Latin** (modulo the extraposition of the relative clause, stranding the external Head):¹⁹

(i)

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¹⁸ As Diego Pescarini (p.c.) observed, this possibility may be restricted to Benincà's (2011) *relative definitorie*, a class of relatives which though usually lumped together with restrictive relatives displays a number of properties that set them apart from ordinary restrictive relatives, which in fact do not seem to allow for the spelling out of the two Heads:

^{*}Il libro dal quale libro sono rimasti affascinati è questo

The book by which book they were fascinated is this one

(23) Loci natura erat haec quem locum nostri delegerant

Of the ground nature was this which ground our (men) chose

'The nature of the ground which our men chose was this'

The same appears to be true in emphatic contexts in (some) Indo-Aryan languages, where a left dislocated externally headed post-nominal RC entering the correlative construction can be double-headed, with the internal Head moved to the front of the relative clause. See the examples in (24), and Cinque (2009, Note 1) for their sources.

(24)a [vo laRkii, [jo laRkii khaRii hai]], vo laRkii lambii hai (Hindi)

[that girl [which girl standing be-PR]], that girl tall be-PR

'the girl who is standing, that girl is tall'

b [ba moRii [jo moRii ThaRii hε]], ba moRii lambii hε (Bundeli)

[that girl [which girl standing is]], that girl tall is

'The girl who is standing is tall

c [(o) panc-sab [jaah panc-sab-kE ham niik jakaan janait chalianh]_{S]NP} o panc-sab.. (Maithili)

(the) Panch which Panch-PL-OBJ I good way know.PART BE.PAST.AGR, the (same) Panch...

'The Panch whom I knew very well, the same Panch...'

(i) roman o ratu, koje delo prevodim (Keenan 1985,153) novel about war, which work I am translating

'A novel about war, which work I am translating,..'

(ii) This book, which masterpiece I have read twice,. . . (Kayne 1994,165fn73)

¹⁹ It is possible that such cases as (i), also cited by Keenan, and similar cases in other European languages (see (ii) from English and other such cases cited in Cinque 2008a and Cardoso and de Vries 2010, which involve a *wh*-phrase resuming the external Head *ad sensum*) are more like the 'relatifs de liaison' typical of non-restrictive relative clauses:

- d. [Ti mulgi [ji mulgi ghari geli]] ti ithe rāhte (Marathi)

 [that girl [which girl home went]] that here lives

 'The girl who went home lives here'
- **3. Double-headed RCs in child languages.** Full repetition of the external Head inside the RC is also reported to be cross-linguistically attested as one of the strategies employed by children in their early production of relative clauses (Armon-Lotem, Botwinik, and Birka 2005,1). See the examples from child Italian ((25)), child French ((26)), child Spanish ((27)), child Catalan (28), child English ((29)), child Jakarta Indonesian ((30)), child Hebrew ((31)), child Palestinian Arabic ((32)), child Chinese ((33)), child Turkish ((34)), and that of Hebrew speaking children with SLI ((35)) and Greek children with Down Syndrome ((36)):²⁰
- (25) **Child Italian** (Utzeri 2007,293 and 305)
 - a. [la bambina [che il nonno bacia la bambina]] (G.,I)[the child [that the granddad kisses the child]]'the child that the granddad kisses..'
 - b. [la bambina [che la mamma asciuga la bambina]] (G.,I)[the child [that the mother dries up the child]]'The child that the mother dries up..'

²⁰ Guasti and Shlonsky (2005,§9) (also see Utzeri 2007 and Friedmann, Novogrodsky, Szterman, and Preminger, to appear, for analogous claims, the latter based on the production of RCs in Hebrew by children with hearing impairment – cf. fn.23) claim that the repetition of the internal Head in Romance is best understood as a case of expletive replacement in a raising derivation of the relative clause internal Head (apparent evidence being the fact that no repetition of the Head is found when the internal Head is a subject, plausibly owing to the ECP). This account however is silent about the Hebrew case in (35)a and the apparent lack of copying in other types of wh-movement (interrogatives, topicalization, etc.) in Italian, French, Spanish and Jakarta Indonesian child language. See Labelle (1990,104; 1996,73) for the same point.

(26) Child French (Labelle 1990; also see Labelle 1996,73 and fn.6) a. Sur [la balle [qu'i(1) lance la balle]] (M 5;00) (Labelle 1990,100) on [the ball [that he throws the ball]] 'On the ball that he throws..' b. Sur [la boîte [que la petite fille est débout sur la boîte]] (K 4;04) (Labelle 1990,100) on [the box [that the little girl is standing on the box]] 'On the box on which the little girl is standing..' c. L'ourse pousse [la souris [que la vache lave la souris]] (child 5-7) (Pérez-Leroux 1995,114) the bear pushes [the mouse [that the cow washes the mouse]] 'The bear pushes the mouse that the cow washes' d. **la fille** que la maman couche **la fille** (5;6) (Fragman 1977,177) the girl that the mom puts to bed the girl 'The girl that the mother puts to bed' e. Celle_i que la maman a (=elle) rêve à une maison_i (V 3;11)(Labelle 1990,100) The one that the mother she is dreaming of a house 'The one (=the house) that the mother is dreaming of a house.' (27) **Child Spanish** (Pérez-Leroux 1995,114 citing Ferreiro et al. 1976) el gato empuja a[l perro [que el conejo lava al perro]] (child 5-6) the cat pushes [the dog [that the rabbit washes the dog]] 'the cat pushes the dog that the rabbit washes'

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pentina **el nen**]]

(28) **Child Catalan** (Gavarró, Cunill, Muntané and Reguant 2010,§3.2)

CL would-like to-be the boy that the neighbour combs the boy

ser [el nen [que el veí

M'agradaria

'I would like to be the child that the neighbour combs.'

- (29) Child English (Pérez-Leroux 1995,121f, citing Finer 1992)²¹
 - a. The song about [the airplane [that we're riding in an airplane...]] (3;9)
 - b. There's [a train worker [that we saw a switchman]] (3;10)
 - c. [The **one** [that the mailman is holding **the baby**]] (Kara 4;11)
 - d. [The **one** [that the cowboy is pulling **the horse**]] (Callie 3;5)
- (30) Child Jakarta Indonesian (Tjung 2006,180)

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[orang [yang kucingnya lompatin orang]]
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[person [COMP cat-3 jump-IN person]]

'the person that the cat is jumping over'

(31) **Child Hebrew** (Armon-Lotem, Botwinik and Birka 2005,1)

[ha-ec [she-ha-gamad tipes al ha-ec]]

[the-tree [that-the-dwarf climbed on the-tree]]

'the tree on which the dwarf climbed..'

(32) **Child Palestinian Arabic** (Armon-Lotem, Botwinik and Birka 2005,1)

[Iz-zalami [illi l-walad khaf min (iz-)zalami]]

[the-man [that the-boy feared from (the-)man]]

'the man who the boy feared..'

²¹ On the existence of full resumptive NPs in the relative clauses of English speaking children, also see McKee and McDaniel (2001,126-128). Resumptive NPs are also reported to exist in Serbo-Croatian relative clauses in Stojanović and Goodluck (1995,619).

(33) **Child Chinese** (Hsu 2006,286; Hsu, Hermon and Zukowski 2009,343)²²
[[xiao-nühai zai kan **dianshi** de] na-ge **dianshi**]
little-girl DUR watch **TV** DE that-CL **TV**'the TV which the little girl is watching'

(34) Child Turkish (Özge, Marinis and Zeyrek 2010,§4)

[[İneğ-in koyun-u it-tiğ-i] koyun]

cow-GEN sheep-ACC push-DIK-3SG.POSS sheep

'The sheep that the cow pushed'

- (35) Hebrew speaking children with SLI (Novogrodsky and Friedmann 2006,369 and 370f)²³
 - a. ze [ha-yeled [she-ha-yeled roxec et ha-aba]]this the-child that-the-child washes ACC the dad'This is the child that washes the dad'
 - b. [ha-yeled [she-ha-saba menashek yeled exad]][the-child [that-the-granddad kisses child one]]'the child that granddad kisses'

²² Hsu, Hermon and Zukowski (2009) say that "[r]esumptive NPs are ungrammatical in Chinese, yet this was found to be the most commonly produced error in our data." (p.343).

²³ In a study of relative clause production by children with hearing impairment Friedmann, Novogrodsky, Szterman, and Preminger (to appear) report that out of 12 ungrammatical sentences (from the viewpoint of the adult grammar) 9 contained doubling of the relative Head in object position, as in (i), and 1 doubling of the relative Head in subject position.

⁽i) zo [ha-yalda [she-ha-safta mesareket et ha-yalda]]
this [the-girl [that-the-grandma combs ACC the-girl]]
'This is the girl that grandma combs..'

(36) **Greek children with Down Syndrome** (Stathopoulou 2007,117)

[o pithikos [pu sprohni i alepu ton pithiko]]

the-monkey-*nom* that push-3sg the fox-*nom* the monkey-*acc*

"The monkey that the fox is pushing"

To conclude this section with Utzeri's (2007) words, "the fact that ORCs [object relative clauses] with resumptive DPs are not admitted in the adult systems of the languages we analysed, on the one hand, and the fact that ORCs with resumptive DPs are found in the early grammar of different languages, on the other, strongly suggest that the use of resumptive DPs as a relativization strategy is a genuine grammatical option exploited in early grammars." (p.306). As often noted, children do not employ options which are not found in some adult grammar, which may be different, as in these cases, from the one to which they are exposed.

4. Some implications for the analysis of RCs. The existence of structures in which the external Head is "doubled" by an internal Head seem to provide direct evidence that at least some RCs in some languages are double-headed, and that we should possibly generalize this structure to all languages and all RCs (whether they involve a "matching" or a "raising" derivation), as suggested in Cinque (2003, 2008, in preparation).

While the copy theory of movement (Chomsky 1993) might offer a technical means to capture this fact even in an exclusively "raising" analysis (by the simultaneous spell out of the copies in the Merge and in the derived positions), it seems that this possibility should not be allowed too freely as no comparable spelling out is found in other clear movement cases (e.g. *wh*-movement in interrogatives, free relatives and focus movement – see below). This weakens the possibility, it seems, of adopting such solution just for relatives. While I do not have relevant data for most of the languages discussed above concerning the possible existence of copies in their other movement

constructions, some suggestive evidence from Italian and child languages can be offered that makes a copy theory approach dubious. So, for example, whereas it is possible in literary styles of Italian to repeat the Head inside some RCs (see (22) above), no comparable repetition is permitted in whinterrogatives, free relatives, and focus constructions. ²⁴ See the sharp ungrammaticality of (37)a-c:

- (37)a *Quale sostanza (dicono che) hanno ricavato quale sostanza? which substance (they say that) they have obtained which substance? 'Which substance (do they say that) they have obtained?'
 - b *Qualunque sostanza (si dice che) possano ricavare qualunque sostanza sarà pericolosa whatever substance (they say that) they have obtained will be dangerous
 - c *Quésta sostanza (non quélla) (dicono che) hanno ricavato questa sostanza this substance (not that one) (they say that) they have obtained this substance

A particularly noticeable feature of the double-headed RCs of many of the languages reviewed here is the fact that the two heads are often very general terms (functional nouns) referring to 'thing', 'person', 'place', 'time' (this is especially the case of the Dogon varieties discussed above, of Angaataha, Moskona, Mina, and Japanese), or the fact that the external Head represents a more general class of which the internal Head is a specific member (again, typically, 'thing' for non human entities, and 'person' for human entities). This is the case of Kombai, Shapsug Adyghe and of (some cases of) Child English (cf. (29)). The opposite is apparently true of the Japanese case (14)a above, where it is the internal Head which is the more general term ('person') (but see (14)c). 25 A possible conclusion suggested by this phenomenology is that a DP is always associated

²⁴ Labelle makes a similar point concerning child French (cf. end of fn. 20 above).

²⁵It is not clear whether (14)a shouldn't rather be analysed as a case of resumption of the external Head by an epithet within the RC, accounting for the full-fledged DP nature of the internal Head (with implications for the matching of the two Heads, the external and the internal, and the merge position of the relative clause, which should possibly be higher).

with a functional N classifying it ([FP [DP guest] person], [FP [DP table] thing], etc., much as we see with proper nouns and common nouns ([FP [DP New York] city], [FP [DP Mississippi] river], etc.). 26

The variation we observed would then be due to the conditions on the pronunciation of the different pieces of the internal and external Heads. Usually functional nouns are the first pieces which fail to be pronounced: instead of *New York city* one can have *New York*; instead of *The Mississippi river* one can have *The Mississippi* (presumably with a silent CITY and RIVER, respectively). 27

Similar appear the case of many of the examples of "double-headed" RCs in child languages quoted above and that of the Atlantic Creole Pichi, which displays examples like the following:

(i)a. À get sòn kəmpin, sòn Ghanà-mán [we à no sàbí us=say dan man de] (Yakpo 2009,485)

1SG get some friend, some Ghana-man SUB 1SG NEG know Q=side that man BE.AT

Lit. 'I have a friend, a Ghanaian who I don't know where that man is'

b. Bìkos wan isla de [we è fiba se petroleo de nà dis isla] (Yakpo 2009,488) because one island BE.AT [SUB 3SG seem QUOT oil BE.AT LOC this island]

'Because there is an island of which it seems that there is oil on this island

The order proper noun > common noun is typical of head-final languages, and the order common noun > proper noun of head-initial languages (though there are inconsistencies). See Cinque (2011) and references cited there.

(i) Il Cairo è sempre stata il centro più importante del mondo islamico

The (masc.sing.) Cairo has always been (fem.sing.) the most important center of the Islamic world

(ii) Sono le una (=sono le ORE una ORA)

They.are the.fem.pl. one.fem.sg. (they.are the.fem.pl hours.fem.pl. one.fem.sg. hour.fem.sg)

'It's one o'clock'

This is the conclusion also reached by Inada (2009,fn.15) for such cases as (14)b-c ("..the amount expression 100man yen 'a million yen' in [(14)c] contains the semi-lexical expression gaku ['amount'] ([gaku [100man yen]] as a so-called "big DP". In this case, only the amount expression gaku is relativized and it also yields the A[mount]R[elative] reading, with the copy of gaku unpronounced in the base position").

²⁷ See the case of feminine agreement with the otherwise masculine proper noun *Il Cairo* (lit. 'The (masc.) Cairo') no doubt controlled by an unpronounced classifier CITTA' ('city' (fem.)) (see (i), from Cinque 2008a,fn.11), and the feminine plural and singular agreement in (ii), plausibly controlled by two unpronounced instances of the classifier HOUR (on non pronunciation of functional material, see several chapters in Kayne 2005):

In most languages functional nouns are unpronounced in both the external and the internal Head positions (as is generally the case also for the associated non-functional noun in the internal Head position, or in the external one in "raising relatives", and head-internal relatives). But, as observed above, certain languages may retain the functional noun in the position of the external Head, while non pronouncing the associated non-functional noun.

The necessary presence of functional nouns like 'thing', 'person', 'place', 'time', generally unpronounced, generalizes to other functional nouns like 'amount' and 'kind', which seem semantically implicated in certain RCs. For example, the three-way ambiguity of (38) would then be made to depend on which of the three (unpronounced) functional nouns THING, AMOUNT and KIND is associated with the common noun *libri* 'books':

- (38) Se fosse stato preside non avrebbe potuto pubblicare i libri che ha pubblicato

 If he had been a dean he could not have published the books that he published

 (= 1) the specific things/books that he published,
- (=2) the number of books that he published,
- (=3) the kind of books that he published.

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