A Note on Relative Clauses
with Split Antecedents*

Guglielmo Cinque

Since Perlmutter & Ross (1970), relatives with split antecedents have represented an analytical problem for any theory of relative clauses. Two cases should in fact be distinguished; one in which the split antecedents occur in two (or more) coordinated sentences, characteristically bearing the same grammatical function (subject, object, etc.) (see section 1) and one in which they bear different grammatical functions in one and the same sentence (see section 2).

1   Split antecedents in coordinate sentences[1]

The examples in (1) illustrate the case of split antecedents in two coordinated sentences:[2]

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*To Liliane with sympathy and admiration.

[1]This construction must be kept distinct from the construction with coordinated antecedents which has come to be known as the hydra construction Link (1984). The reason is that languages with pre-nominal relatives have the latter but not the former

[2]Note that (1)b., e., f. and g. have split antecedents in the object rather than in the subject position of the coordinate sentences (pace Rochemont & Culicover 1990: 38f). More difficult seem cases where the split antecedents in the coordinated sentences have different grammatical functions. Baltin (2005: 255) gives an example like (i) as ungrammatical:

(i)   *A man entered the room and I saw a woman who were similar

Also see Moltmann (1992). Yet, as noted in Smits (1989), for some Italians the split antecedents of a nonrestrictive relative need not have the same grammatical function. In fact I tend to accept a sentence like (ii).

(ii)   Alla fermata è arrivato un uomo ed io ho visto anche un ragazzo, i quali si assomigliavano molto
          'At the bus stop a man arrived and I saw a boy too, who looked very much alike.'

(1) a. A man$_i$ entered the room and a woman$_j$ went out who$_{i,j}$ were quite similar. (Perlmutter & Ross 1970: 350)

  b. Every villager envies a relative of his and every townsman admires a friend of his who hate each other (Hintikka 1974: 172)

  c. The girl left and the boy arrived who met in Chicago (Chomsky 1975: fn.47)[3]

  d. It is obvious that a man came in and a woman went out who were similar (Andrews 1975: 119)

  e. John saw a man and Mary saw a woman [who were wanted by the police] (Alexiadou et al. 2000: 14)

  f. Kim likes muffins, but Sandy prefers scones, which they eat with jam (Arnold 2004: 274)

  g. John noticed a man and Mary spotted a woman [who the police were looking for –] (Radford 2017: §5.2)

Our tentative interpretation of such cases is that they are possibly to be assimilated to those RCs that (marginally) receive a restrictive interpretation even though they enter a discourse grammar nonrestrictive structure like the restrictives with heavy pied piping in English (as in examples like *every candidate the father of whom Bill voted for* —Jacobson 1998: 81) or the restrictives employing the art. + *qual*- paradigm in Italian (*I soci i quali non abbiano ancora versato la quota annuale..* 'The members who have not paid the annual fees.. '— Cinque 1982: 264); constructions not derived by raising, in which the wh-pronoun is interpreted similarly to a pronoun or demonstrative.[4] For additional discussion of the discourse grammar non-restrictive construction, also arguably used for the special restrictive construction examined here, see Cinque (2008, to appear).

This interpretation may be supported by the following three facts. First, replacement in English of a wh-relative pronoun with that (which is otherwise un-

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Chaves (2012: §3.4.3) notes that conjunction, but not disjunction, gives acceptable sentences:

(iii) *A man entered or a woman left who were quite similar.

[3]Chomsky (1975: 98) actually says "To me these examples seem at best quite marginal, and I would question whether anything can be based on them." (fn.47). In fact not all languages appear to allow for them. See Cardoso (2010: 191f) on European Portuguese.

[4]Recalling the analysis of split antecedents of nonrestrictive relatives in Demirdache (1991: 116). Also see Yoshitaka Erlewine & Kotek (2015) and Webelhuth et al. (2013: 47), where such cases as (1a) are suggested to be similar to *A man$_i$ entered the room and a woman$_k$ went out. They$_{i+k}$ were quite similar.*

exceptionable with embedded and extraposed restrictives and marginal to impossible with nonrestrictives) leads for at least some speakers to much less acceptable sentences. Megan Rae (p.c.) finds (1)a with that replacing who much worse (see (2a), with her judgment), and Arnold (2004: 30) marks the variant with that in (2b) as unacceptable:

(2) a. ?*A man$_i$ entered the room and a woman$_j$ went out that$_{i,j}$ were quite similar.
 b. Kim likes muffins$_i$, but Sandy prefers scones$_j$, which$_{i+j}$/*that$_{i+j}$ they eat with jam.

Second, an example like (3) in Italian is to my ear marginally possible even though it apparently violates the Right Roof Constraint:

(3) ?[Che [qualcuno$_i$ ci abbia aiutato] e [un'altro$_j$ si sia aggiunto] è una fortuna] senza i quali$_{i,j}$ tutto questo non sarebbe stato possibile.
 'That someone$_i$i helped us and someone else$_j$ joined in was a stroke of luck without whom$_{i+j}$ this would not have been possible.'

Third, as noted in Del Gobbo (2010: 406f, 2015: §2.2, 2017: §2.2) and Lin & Tsai (2015: 105f) split-antecedent RCs parallel to (1) above appear not to be possible in Chinese, even in nonrestrictive RCs, which are of the integrated type. This may well be a general property of languages with pre-nominal RCs, which, as seen, do not dispose of non-integrated nonrestrictives (Jaklin Kornfilt, p.c., informs me that examples like (1) above are indeed impossible also in Turkish pre-nominal RCs, although examples of coordinated antecedents (hydras) are perfectly grammatical).

    For further discussion and different analyses of these split antecedent cases in terms of movement see de Vries (2002: 66ff and Chapter 7,§5.2.12), Zhang (2007, 2010), Cecchetto & Donati (2015: §3.3.5), Overfelt (2015: §6.2)[5] and Fox & Johnson (2016). Despite these attempts, it does not seems unreasonable to conclude, with Alexiadou et al. (2000: 14), that "[w]hile it is feasible for an RC to be linked to multiple antecedents by a rule of construal, as in the standard

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[5]Overfelt notes that examples like (i) below suggest, contrary to these expectations, that a negative polarity item can be licensed in the extraposed material even given split antecedence:

(i) [$_{DP}$ Every intern]$_1$ left and [$_{DP}$ every employee]$_1$ quit [$_{CP}$ who were in any of the basement offices]1.

approach, to claim that they are linked by a movement dependency is problematic. It seems rather far-fetched to suppose that the antecedents in [(1)] could have originated inside the relative clause (say, as a conjoined DP) to then be split and distributed across two clausal conjuncts after raising (a kind of 're-verse' Across-The-Board raising).". Also see Andrews (1975) and McKinney-Bock (2013), McKinney-Bock & Vergnaud (2014), Radford (2017: §5.2) for non raising analyses, and Baltin (2005).

2 Split antecedents with different grammatical functions belonging to the same sentence

The cases of RCs with split antecedents belonging to the same sentence appear to be possible in Italian and English as nonrestrictive RCs. See (4a) and (4b)), but not as restrictives. See the ungrammaticality of (5a)-(5e):

(4) a. Se Carlo$_i$ non amava più Anna$_j$, i quali$_{i,j}$ d'altra parte non si erano mai voluti veramente bene, una ragione c'era.
'If C. was no longer in love with A. that at any rate never really loved each other, there was a motive.'

 b. Se Piero$_i$ non si trova più tanto bene con Ida$_j$, tra i quali$_{i+j}$ d'altronde non c'è mai stata una vera amicizia,..
'If P. no longer likes to stay with I. between whom in any event there never was a real friendship, ...'

(5) a. *The dog is chasing the cat which were fighting (Andrews 1975: 116)

 b. *A man met a woman yesterday who were similar   (Guéron 1980: 648; credited to N.Chomsky)

 c. *The boy$_i$ looked at the girl$_j$ who$_{i+j}$ both like sports. (de Vries 2002: 67)

 d. *A man visited a woman (yesterday) who were similar   (Baltin 2005: 255)

 e. *Il ragazzo guardava la ragazza che entrambi amano gli sport (same as (5c))

Yet to judge from Chomsky (1975: fn47) referring to what would later be published as ex. (26) in (Perkins 1982: 284) similar sentences are apparently possible in Navajo (also see the discussion in Andrews 1975: 116ff):

(6) Łééchąą mósi yinoołchééł ahigánę́ę́ʼ. (Navajo;
dog$_i$ cat$_j$ it-is-chasing-it-along they$_{i,j}$-are-fighting-REL
Perkins 1982: 284)

'*The dog$_i$ is chasing the cat$_j$, which$_{i,j}$ were fighting'.

In fact, they appear possible even in English, provided that the two antecedents are related by a symmetric predicate. See Poschmann et al. (2016), citing an example, (7), from Hoeksema (1986: 69):

(7) We always let those boys$_i$ play with those girls$_j$ [who$_{i,j}$ know one another from elementary school].

Once again, such cases of split antecedents are impossible in languages with pre-nominal relative clauses. See Del Gobbo (2010), Del Gobbo (2015) on Chinese.

A raising analysis for this second type of split antecedent relatives would again seem to require special assumptions, while the same discourse grammar analysis of nonrestrictives mentioned above appears to be able to provide an analysis for this second type of split antecedent relatives.

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