Mark de Vries. <u>Review of</u> Valentina Bianchi, *Consequences of Antisymmetry: Headed Relative Clauses*. Berlin: Mouton de Gruyter, 1999.

## Introduction

Kayne's (1994) theory on the antisymmetry of syntax restricts the class of possible X-bar structures. In a few words: only [specifier [head complement]] is allowed. If true, it falsifies many existing syntactic analyses. Therefore this line of research has to provide alternative theories.

In the domain of relativization, the 'standard analysis' assumes adjunction of the relative clause to the right of a projection of the antecedent. This is impossible in an antisymmetric framework. Thus Kayne has revived and modernized Vergnaud's (1974) alternative 'raising analysis'. Valentina Bianchi has picked up and developed these ideas in her doctorate research and beyond, which has resulted in the book under consideration. Bianchi claims that the raising analysis is superior to the standard theory on empirical gounds. Therefore she concludes that the Antisymmetry hypothesis, which she has accepted for independent reasons (both conceptual and empirical), not only passes the test of the empirical domain of relatives, but in fact is supported by it indirectly.

Bianchi's work is an interesting contribution to the antisymmetric literature, but first and foremost it is a valuable discussion on the syntax of relatives – to be precise: the syntax of postnominal headed relatives of the Romance/Germanic type, with some emphasis on the COMP domain.

# Overview

The book consists of eight full chapters, apart from the preface and the conclusion. The first discusses the Antisymmetry framework, which doesn't need to be repeated here. The second chapter presents the basics of the raising analysis (to be explained below), including the main indications in favour of it. It is in fact an extensive summary of Kayne's work on this subject, with several additions. Chapter three discusses in some detail the idea that relative pronouns are a kind of determiners. On the basis of Italian data, chapter four shows that the empirical evidence from reconstruction in favour of the raising analysis proper doesn't work for appositive relatives, in fact points to the opposite. Hence some extensions and alternatives concerning the syntax of appositives are explored in chapter five. The sixth and seventh chapter concern the COMP domain, that is, doubly filled COMP effects and the split CP system. Finally, chapter eight discusses some residual issues: stacking, coordination and extraposition.

Since there are many different types of relatives, and the syntax of relative clauses is influenced by a great deal of other topics, we cannot expect the discussion to be exhaustive. Bianchi focuses on relative determiners and the complementizer domain (chapters 3, 6 and 7). In my view, this is the most interesting and original part of the discussion. The chapters on appositives and residual issues (5 and 8) are less satisfactory. As the critique on the raising analysis (e.g. Borsley 1997) has emphasized some of these subjects, this may be considered unfortunate. See also De Vries (2002) for more discussion.

As for the physical appearance of the book: it is a good-looking volume of about 350 pages. There are many relevant <u>end</u>notes, which is somewhat inconvenient for the reader. Given the great expense of the book, the editor might have saved us a lot of false abbreviations at the end of the line.

## **Theoretical background**

Apart from Kayne's Antisymmetry, Bianchi is somewhat eclectic in her theoretical assumptions. She accepts Rizzi's Relativized Minimality, static (nonchecking) spec/head agreement criteria, the split CP system, and head government; next to this she uses Manzini's locality conditions, and many concepts from Chomsky's Minimalist Program, such as feature-triggered movement, parameters in terms of features, economy of representation, and the copy theory of traces.

# The raising analysis of relative clauses

The present raising analysis comprises two essential components: i) raising of the head and ii) the hypothesis of the external determiner. These are illustrated in (1) [p.41,(23)]:

(1)  $[_{DP}$  the  $[_{CP}$  book<sub>i</sub>  $[_{CP}$  that I read  $t_i ]]]$ 

The relative clause is the complement of the external determiner. This is always the case, whether D is overt or not. Furthermore, the head noun *book* (the antecedent) originates at the position of the relative gap and is raised to the left-periphery of the subordinate clause. Note that the second CP corresponds to C' in the traditional notational system; hence *book* is in SpecCP. The fact that "the nominal category modified by the restrictive relative does not form a constituent with the determiner that precedes it" [p.70] is irrelevant in the sense that this is no different in the standard right adjunction theory,<sup>1</sup> but it is very relevant in the sense that a formal link must be established between the head and D, given that they agree in  $\varphi$ -features and Case; see further below.

At this point it may be noted that the raising analysis is not the only one compatible with Antisymmetry, since the relative clause (instead of being an adjunct) could be the complement of the head N, or it could be the complement of some potential functional head below D that takes NP as its (base-generated) specifier; see e.g. Fabb (1990), Platzack (1997), Murasugi (2000), Schmitt (2000) and Koster (2000) for various different ideas. Despite the title of the book, Bianchi does not discuss or anticipate these possibilities, except for the following remark [p.35]: "since relative clauses are not theta-marked, they cannot be complements to a lexical head". Nevertheless, the raising analysis is firmly supported by cross-linguistic evidence and by several reconstruction effects,<sup>2</sup> and I agree that it is the most feasible analysis.

# **Relative determiners**

Bianchi argues that a relative pronoun is in fact the "relative determiner" of the internal nominal head. Thus the underlying structure of *the boy who I met* is (2) [p.75,(9a)]:

(2)  $[_{DP}$  the  $[_{CP} C I met [_{DP} who [_{NP} boy]]]]$ 

The derivation involves at least two steps, then: i) movement of the lower DP to the left-periphery of the subordinate CP, and ii) movement of NP to a position above *who*; see further below.

Cross-linguistically, many (attributive) demonstrative pronouns, interrogative pronouns and articles can be used as relative pronouns, e.g. German *der* 'the', Dutch *die* 'that<sub>dem</sub>' and Latin *qui* 'who'. Hence it is conceivable that relative pronouns are analysed as determiners. A potential problem pointed out by Bianchi is the apparent definiteness of several relative determiners. If they were, either the external determiner or the relative determiner would be a vacuous quantifier. However, Bianchi convincingly shows that the relative D is non-definite. An example from Albanian is (3) [p.84,(25)]:

(3) Qyteti në të cilin banonte tër jetën city-the in ADJ.ART which she.lived all life-the 'the city where she lived all her life'

Here the relative pronoun *cil*- contains a definite article, but the 'adjectival article'  $t\ddot{e}$  belongs to the indefinite series. The conclusion must be that the presence of a definite morpheme in a relative pronoun does not imply that it is semantically definite. This is corroborated by the diachronic development of relative pronouns. I quote [p.104]:

"The morphology of the Indo-European relative determiners can be conceived as the result of three distinct developments. The indefinite/interrogative determiners probably originated in a correlative structure that evolved into an embedded clause. The demonstrative determiners may have developed a relative function by a gradual weakening of their referential strength and syntactic independence along Greenberg's cycle of the definite article. The mixed type il quale seems to have developed from an original indefinite form by the insertion of a definite article with the function of an agreement marker. Therefore the definite morphology of the second and third type may be regarded as semantically inert."

## Wh-relatives

The normal *wh*-relative is derived as follows [p.76ff/188ff]:

(4)  $\begin{bmatrix} DP & C_1 + D & [CP1 & NP & [CP1 & t_{C1} & [CP2 & [DP & D & t_{np}]_i & [CP2 & C_2 & [IP... & t_i & ... ]] \end{bmatrix} \end{bmatrix}$ the boy who

The relative DP is raised to the lower specifier of the split CP (concerning the nature and movement of  $C_{1/2}$  see below); then the head NP moves on to the highest specifier. In this configuration the external D governs NP, which results in Case agreement. The relative pronoun (the lower D) is not locally governed by  $D_{ext}$  and it has checked Case in the subordinate clause, as required. The second step of the NP out of DP<sub>rel</sub> gets some independent support by the attested intervening constituents in Bulgarian and Hungarian [p.192/193]. However, one might object that this is strictly forbidden in other languages.

What triggers these movements? Bianchi formulates several alternative possibilities without really opting for one. The first step may be the consequence of a 'Relative Criterion', which is satisfied if the lower DP and C<sub>2</sub> are in spec/head configuration, since both are supposed to have a feature [+rel]. This, I suppose, is equivalent to the explanation for *wh*-movement, independently of the exact theoretical perspective. Alternatively, the first step may be 'feduced to the second step, which only involves the NP category'' [p.77] as 'an instance of pied

piping" [p.76]. I don't consider this a plausible alternative, at least not from the perspective of a derivational grammar; moreover, why would pied piping be obligatory in the first step and impossible in the second? As for the second step: the external D supposedly has a strong [+N] feature which attracts the NP to its governing domain. Since this is problematic from a Minimalist perspective (e.g. it leads to countercyclic movement), Bianchi suggests an alternative [p.78/79] –  $[_{DP} Agr_D+the [_{AgrP} boy [ t_{agr} [_{CP} [_{DP} who t_{NP}]_i [_{IP} ... t_i ...]]]]] – in which the agreement between D and N is mediated by an intermediate Agr projection: first NP moves to SpecAgr, then Agr incorporates into D. However, it seems to me that a similar AgrP must be present in the lower DP. We know that NP<sub>boy</sub> and D<sub>who</sub> agree in phi-features but not in Case (unless coincidentally). How this is established is not clear to me; nor is it clear if NP is free to be moved out of this complex DP.$ 

In short, the mechanisms that have to explain the movements involved are not fully uncovered as yet.

#### Pied piping and attractio relativi

If the relative DP is embedded in a prepositional phrase, the derivation is slightly different from (4) [cf. p.198]:

The PP containing the relative DP is pied piped to SpecCP (there is no need for a split CP here) and the head NP moves to SpecPP. The NP is governed by the external D, as required, but the lower DP is not, because of the intervening preposition; hence the potential Case difference.

Analogous to (5), a second possibility for the normal *wh*-relative emerges. Interestingly, this leads to a phenomenon known as *attractio relativi* (Case attraction); see (6) [p.95,(58)]:

(6)  $[_{DP} D [_{CP} [_{DP} NP [_{DP} D t_{np}]]_i [_{CP} C [_{IP} ... t_i ...]]]]$ 

Here the external D governs the whole relative DP, according to Bianchi. Hence all three elements,  $D_{ext}$ , NP and  $D_{rel}$ , must agree in Case, despite the fact that the Case requirement on  $D_{rel}$  at  $t_i$  may be different (and gets deleted or is overruled somehow). A Latin example is (7) [p.94,(54)]:

(7)	notante	iudice	quo	nosti
	judging <sup>+ABL</sup>	the.judge <sub>ABL</sub>	who <sub>ABL</sub>	you.know <sup>+ACC</sup>
	'judging the	e judge whom	you kno	w' ACC $\rightarrow$ ABL

As far as I can see, this construction is only found dead languages, as is the inverse phenomenon: *attractio inversa*. They may be (remnants of) a diachronically intermediate relative strategy. What is important, I think, whether or not we agree with the (details of the) analysis, is that these complex matters can be discussed in Bianchi's framework to begin with.

### That-relatives

The *that*-relative is derived differently from the *wh*-relative. Still, the head NP must be embedded in a DP shell (contra Kayne, 1994), simply because it is an argument; this is the Abney/Longobardi view [p.37]. By assumption, the empty  $D_{rel}$  is licensed by incorporation into  $D_{ext}$  [p.171,(32)]:

(8)  $[_{DP} D_{rel} + the [_{CP} [_{DP} t_D [_{NP} book]]_i [_{CP} that I read t_i ]]]$ 

The NP does not move independently of DP<sub>rel</sub> and no split CP is needed.

Bianchi states [p.172]: "deletion in PF is reduced to a general syntactic process – incorporation", which, obviously, is restrained by feature compatibility. (Notice that in this case  $D_{rel}$  is underspecified for definiteness (see above) and its – possibly non-agreeing – Case feature must have been checked and erased already.) Incorporation is triggered by the following principle [p.197,(95)]:

(9) Economy of representation Unify two terminal symbols into one whenever possible.

I must say that I am not convinced by this reasoning, since Bianchi's conception of economy deviates from the usual one, where economy conditions *choose* between a set of alternative derivations; they don't *create* new derivations.

## The split CP system: the doubly filled COMP effect and zero relatives

Apart from *wh*-relatives and *that*-relatives, there are 'zero relatives" in English, e.g. 'the book I read'. The fact that the first two types pattern alike, but unlike zero relatives with respect to subject relativization and embedded topicalization/negative preposing [p.175-178] is taken as evidence by Bianchi that the null C in *wh*-relatives corresponds to *that* in *that*-relatives, but not to the empty element in zero relatives. I fail to see this exactly, but anyway it is in accordance with the split CP system and the asymmetry between (4) and (8).

In full detail, the COMP domain consists of the projections Force – Topic – Focus/Wh – Topic – Finite [p.181,209ff]. Topic and Focus need not be present. In addition, Bianchi postulates the following parameter [p.186,(68)]:

(10) +/- [Topic optionally supports the features [+declarative] and [+relative] ]

In Italian, it is negative; in English positive. This could explain the absence of zero complementizers in Italian – embedded clauses must be ForcePs hence introduced by *che* 'that' –, whereas in English they can be [+declarative] TopPs: 'So hai \*(che) ragione'/'I know (that) you're right' [p.186/187]. The implicit assumption here is that Top is intrinsically empty but Force lexical.

In short, for relative clauses we get (11) [p.197,(97); 198,(99); 191,(86)+196,(94)]:

- (11) a.  $[_{DP} D_{rel}+the [_{ForceP} [_{DP} t_D [_{NP} book]]_i [_{ForceP} that [_{IP} I read t_i ]]]]$  (*that*-rel.) b.  $[_{DP} D_{rel}+the [_{TopP} [_{DP} t_D [_{NP} book]]_i [_{TopP} Top [_{IP} I read t_i ]]]]$  (zero rel.)
  - c.  $[_{DP} Force+D [_{ForceP} NP [ t_F [_{TopP} [_{DP} D_{rel} t_{np}]_i [ Top [_{IP}...t_i ]]]]] (wh-rel.)$ the boy who I met

Again, the second option is not available in Italian.<sup>3</sup> In (11c) Force may be empty because it is licensed by incorporation into the external D. Force *can* be empty, hence, given economy principle (9), it *must* be empty. This, then, is Bianchi's explanation of the well-known doubly filled COMP effect.<sup>4</sup>

Several variants of the Germanic and Romance languages do not show the DFC effect. In the present system this must be explained as the lexicalization of a lower head in the COMP domain, next to the relative pronoun; these conclusions are in line with Zwart (2000), although many questions remain to be answered.<sup>5</sup>

# **Other types of relatives**

As mentioned before, Bianchi focuses on the postnominal relative construction. Concerning prenominal and circumnominal relatives, she takes over Kayne's suggestions – including the errors, unfortunately.<sup>6</sup> The correlative construction is discussed briefly from the perspective of the relative determiner system.

As for appositive relatives, Bianchi presents a nice set of data from Italian [Ch4] that shows the difference in reconstruction effects between appositives and restrictives; see e.g. (12) [p.121,(23b/c)]:

- (11) a. Il giudice<sub>j</sub> invalidò l'unica prova della propria<sub>i</sub> innocenza con cui l'imputato<sub>i</sub> sperava di scargionarsi *t*.
  'The judge invalidated the only proof of his innocence by which the defendant hoped that he could exculpate himself.'
  - b. \* Il giudice<sub>j</sub> invalidò un'unica prova della propria<sub>i</sub> innocenza, con la quale l'imputato<sub>i</sub> era certo di scargionarsi *t*.
    'The judge invalidated a single proof of his innocence, by which the defendant was able to exculpate himself.'

This difference is explained as follows [p.146ff]: at LF the IP of the appositive relative raises to the specifier of the outer determiner, as in Kayne (1994). This move takes it out of the scope of the determiner, and it prevents reconstruction of the head. Bianchi does neither illuminate the obvious problems associated with the supposed trigger for this movement: "a feature which is manifested in the phonetic form as the intonation break characterizing appositive relatives" [p.147], nor the potentially misguided correlation with prenominal relatives. Furthermore, the raising analysis as presented cannot be maintained for appositives with a non-nominal antecedent (cf. Borsley 1997), which is acknowledged by Bianchi. She assumes, however, that these are not true relatives but instances of the so-called *relative de liaison*.

#### Conclusion

In general I want to stress the merits of Bianchi's work. She has provided a detailed and unorthodox contribution to our knowledge of the syntax of relative clauses, especially concerning the complementizer domain in the Romance and Germanic languages. I am convinced that the raising analysis has paved the way for new insights, whether we follow the Antisymmetry hypothesis or not. The fact that many smaller and larger details, as well as the precise analysis of non-postnominal relatives and appositives have to be settled yet, does not alter this conclusion.

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## Notes

<sup>1</sup> Bianchi suggests at various points in the text [e.g. p.75] that the determiner and the head noun form a constituent in the standard analysis. This, however, is only the case in the oldest variant by Ross (1967): [NP [NP Det N'] RC]. At least from Jackendoff (1977) on it is recognized that in restrictive relatives the level of adjunction/attachment must be lower, in order to put it in the scope of the determiner, contrary to the situation in appositive relatives. Hence we have e.g. [NP Det [N' [N' N] RC]] or [DP D [NP [NP N] RC]]. See also Smits (1988) on this matter.

<sup>2</sup> Most of these are treated elsewhere in the literature as well, and I will not repeat them here.

<sup>3</sup> I wonder how Bianchi would approach languages such as Dutch, where only the *wh*-relative is possible, but embedded declarative sentences require an overt complementizer.

<sup>4</sup> If so, we may wonder why (11a) is possible at all: why wouldn't Force ('that') incorporate into D+the and become zero? Bianchi notes that double incorporation (Force+D<sub>rel</sub>+D) would be double adjunction to a head, hence it violates Antisymmetry. It seems to me that complex head movement, e.g. [<sub>D</sub> [<sub>F</sub> F+Dr]+D] – which *is* antisymmetric – is not an option either, because that would involve lowering, given that DP<sub>rel</sub> does not belong to the main projection line.

<sup>5</sup> For instance, Bianchi predicts that if a language has both *that*-relatives and zero relatives, it also has *wh*-relatives. I think this is incorrect for e.g. Malagasy or Nahuatl (cf. Lehmann, 1984) – languages outside the Germanic/Romance domain. Notice that the reverse is also not true; e.g. Dutch or Hindi have relative pronouns, but not relative complementizers.

<sup> $^{6}$ </sup> For instance, they assume circumnominal relatives to be a variant of the prenominal strategy. This is based on a supposed typological correlation by Cole (1987), among others, which has turned out to be wrong; see e.g. Culy (1990) – who, by the way, is in Bianchi's bibliography.