On Keenan and Comrie's Primary Relativization Constraint

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1. Two opposite views on the nature of syntactic rules which are often implicitly or explicitly assumed are: (a) the idea that syntactic rules are merely "structure dependent" (that is, sensitive just to syntactic categories and phrase structure information), and (b) the idea that they (or at least some of them) are "function dependent" (that is, they may (or must) be sensitive to grammatical functions such as subject of, object of, etc.).¹

The facts we will bring to bear on this issue, from relative clause phenomena in Italian, cannot provide conclusive evidence that all syntactic rules are in essence structure dependent, but they do seem to offer an interesting confirmation of the idea that the rules involved in the derivation of the (restrictive) relative clause in Italian are (in every relevant respect) structure dependent, in spite of a recent general claim to the

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¹ The "structure dependence" of syntactic rules is a traditional assumption of the transformational research program since its beginnings (see Chomsky (1955; 1965)). For more recent discussion, see Chomsky (1975). On the other hand, the "function dependence" of syntactic rules is implicit in many traditional grammar accounts and has in more recent times been explicitly maintained by works in so-called "Relational Grammar" and occasionally by some transformational linguists (cf. Bresnan (1978)). In the version of "Relational Grammar" advocated by Perlmutter, Postal, Johnson, and others, wh-movements are not considered function dependent. See, for example, Postal and Pullum (1978).
contrary (cf. Keenan and Comrie (1977); henceforth, K&C). What the latter claim amounts to is that (restrictive) relative clause formation in all languages is, in at least one respect, crucially dependent on a fixed hierarchy of grammatical functions such as subject (NP), object (NP), indirect object (NP), etc.

It is our intention here to show, in the first place, that a number of nontrivial properties of the (restrictive) relative construction in Italian follow from the general assumptions of the Extended Standard Theory (EST), as espoused most recently in Chomsky (1980), and, in particular, that such properties are explained by the strict structure dependent interpretation of syntactic rules.

We also intend to show that the universal conditions proposed by K&C and collectively known as the “Primary Relativization Constraint” are, for Italian (in the face of a relevant fragment of its grammar), at least partly incorrect, and that, where they are a correct “description” of the facts, they follow, for the relevant part, as special cases from the independently motivated principles of EST.²

2. Italian has essentially two forms of relative pronouns, cui (invariable) and (article +) qual- (where the article agrees in gender and number with the head and qual- just in number).³ We will assume here that the specific difference between the two forms is that the first is a realization of the feature wh attached directly under NP, whereas the second is a realization of the feature wh under a specifier node of $\bar{N}$.⁴ We will also assume, without much justification, that the feature wh is not base-generated in those positions but is placed there transformationally. In no way are these assumptions crucial to the points being made below. Both for expository convenience and because of K&C’s similar limitation, we will restrict ourselves, in the following discussion, to the restrictive relative construction. With certain qualifications which are not relevant here, the same point can be carried over to the appositive construction (cf. Cinque (1978)).

Consider first the following properties of the construction, under either choice of pronoun:

\[
(1) \text{a. La proposta } \left\{ \begin{array}{c}
\text{che} \\
\text{*cui} \\
\text{*la quale}
\end{array} \right. \text{ è stata fatta è assurda.}
\]

‘The proposal that has been made is absurd.’

² It may not be fair to assume that Keenan and Comrie’s proposal was meant to represent a true alternative to transformational analyses of relativization systems in individual languages. Their study might be regarded as offering an overall (and necessarily imprecise) descriptive survey of surface phenomena in the relativization systems of a sample of languages of the world. This article, then, would merely count against interpreting their proposal in the former way.

³ A third (invariable) form introducing relative clauses is che, which is homophonous with the complementizer che and which traditional grammars of Italian invariably classify as a relative pronoun. This form will be discussed below.

⁴ See Kayne (1976, fn. 7) for a similar suggestion.
b. La proposta \{\text{che} \quad *\text{cui} \quad *\text{la quale} \}\ avete fatto è assurda.
   ‘The proposal that you have made is absurd.’

c. La proposta \{\text{di cui} \quad \text{della quale} \quad \text{parlerò già nota.} \quad *\text{che} \}\n   ‘The proposal about (of) which I will talk is already known.’

d. La proposta \{\text{a cui} \quad \text{alla quale} \quad \text{aderiamo è ben nota.} \quad *\text{che} \}\n   ‘The proposal to which we adhere is well known.’

e. La proposta \{\text{da cui} \quad \text{dalla quale} \quad \text{sono partiti è questa.} \quad *\text{che} \}\n   ‘The proposal from which they have started is this one.’

When either a subject or an object is relativized, neither \text{cui} nor (art. +) \text{qual-} may appear. The only form allowed is \text{che} (see fn. 3 and below). When an NP position preceded by a preposition is relativized, \text{che} never appears.\(^5\) The relative clause is instead introduced by \text{cui} or (art. +) \text{qual-} preceded by that preposition. The traditional description of this state of affairs was to posit three relative pronouns in Italian: \text{che} for subject and object NPs and \text{cui} or (art. +) \text{qual-} preceded by the appropriate preposition for the “oblique” cases. However, this treatment fails to provide an explanation for two facts. First, the fact that the “relative pronoun” \text{che} is homophonous with, and occurs in the same (subordinate clause) initial position of, the “complementizer” \text{che}. Second, the fact that \text{che}, on the one hand, and \text{cui} and (art. +) \text{qual-}, on the other, are in strict complementary distribution, whereas \text{cui} and (art. +) \text{qual-} are not. Such a distribution remains unaccounted for under the assumption that \text{che}, \text{cui}, and (art. +) \text{qual-} are all relative pronouns.\(^6\) These two facts call for an explanation.

It is interesting to observe that under the assumptions currently held within EST, such facts receive a principled account, with the intervention of no ad hoc hypotheses.

2.1. We will briefly recall the general principles and conventions of EST which seem crucially involved in the derivation of restrictive relative structures of Italian.

We assume a very general (cyclic) rule (schema): \text{Move \alpha} (where “\alpha” is a category).

\(^5\) See, for example, Fornaciari (1881, 115–120). Note that no (simplex) preposition stranding is allowed in Italian. The preposition is always carried along with its object NP. Here I will simply assume that some relevant principle is available which ensures just this effect. Cf. Van Riemsdijk (1978), Hornstein and Weinberg (to appear) for relevant discussion. In colloquial inaccurate Italian, a partially different system is used in which the starred alternatives of (1c–e) are used instead of the nonstarred ones. Here we will not be concerned with such a system.

\(^6\) These (and other) facts closely resemble the situation studied in detail for French in Kayne (1976).
This rule (schema) collapses the NP and Wh Movements of previous analyses (see Chomsky (1980)). We also assume that the relativization structure in which Move $\alpha$ applies, in the restrictive construction, is $[_{NP \, NP} \, \hat{S}]$.

We further assume a rule of free deletion in COMP which Chomsky (1980) interprets, elaborating on an idea of Kayne (1976), as: “Delete (obligatorily) whenever possible” (that is, except where the deletion leads to a violation of the general principle of recoverability).\footnote{Chomsky (1980) relativizes the obligatoriness of the deletion to the context “... infinitive complement”. For Italian (and French), we assume this interpretation to extend to finite complements. This has a number of different consequences for the two languages (cf., for example, the contrast between The boy who that is speaking and Il ragazzo *il quale/che parla; for further discussion, see Cinque (1978)). Kayne’s (1976) interpretation of the obligatoriness of the relative NP deletion in COMP is rather different from Chomsky’s. In essence, the difference lies in the fact that for Kayne deletion is obligatory even when it leads to a violation of recoverability. This interpretation was essentially motivated by the following French facts:

(i) *L’homme lequel est sorti...  
 ‘The man who went out...
(ii) L’homme auquel Marie pense ...  
 ‘The man Marie is thinking of...
(iii) *L’homme la femme duquel tu as insulté ...  
 ‘The man whose wife you insulted...
(iv) L’homme à la femme duquel je pensais ...  
 ‘The man whose wife I was thinking of...

(i) and (iii) are considered to be unacceptable for the same reason: namely, nonapplication of obligatory deletion of the relative NP in COMP. Under the extension of Chomsky’s interpretation to finite complements as well, the ungrammaticality of (iii) is left unexplained. No deletion would be possible there since it would lead to a violation of recoverability (or of the principle that excludes stranded prepositions in French). So the sentence should be grammatical. For an argument that the ungrammaticality of (iii) may indeed be due to an external factor, and for a full generalization of Chomsky’s interpretation (of deletion in COMP) to finite complements, even to English, see Cinque (forthcoming).

8 See section 2.2 below for a concrete proposal which will be seen to have the interesting consequence of constraining the (syntactically) unconstrained rule Move $\alpha$.}

We further assume a rule of free deletion in COMP which Chomsky (1980) interprets, elaborating on an idea of Kayne (1976), as: “Delete (obligatorily) whenever possible” (that is, except where the deletion leads to a violation of the general principle of recoverability).\footnote{For convenience, we repeat here their filter (178):

(i) "[$_{NP \, NP} \, \hat{S}]$ unless $\alpha \neq NP$ and is adjacent to and in the domain of [+F], that, or NP

(*+F*—a subfeature of [+V]—represents the class of “verbs and adjectives that permit the structure resulting from the deletion of that”.) Cf. fn. 12 below for a first approximation to the form the related filter of Italian should take. Filter (53) is repeated below as (10).}

Relating to the logical form (LF) component, we assume a procedure ensuring that the head NP and the relativized NP in COMP be coindexed, to allow for the correct interpretation of the structure. Cf. Chomsky (1973), Vergnaud (1974).\footnote{For convenience, we repeat here their filter (178):

(i) "[$_{NP \, NP} \, \hat{S}]$ unless $\alpha \neq NP$ and is adjacent to and in the domain of [+F], that, or NP

(*+F*—a subfeature of [+V]—represents the class of “verbs and adjectives that permit the structure resulting from the deletion of that”.) Cf. fn. 12 below for a first approximation to the form the related filter of Italian should take. Filter (53) is repeated below as (10).}

Finally, we assume two filters (one related to Chomsky and Lasnik’s (1977) filter (178), and the other identical to their filter (53)),\footnote{For convenience, we repeat here their filter (178):

(i) "[$_{NP \, NP} \, \hat{S}]$ unless $\alpha \neq NP$ and is adjacent to and in the domain of [+F], that, or NP

(*+F*—a subfeature of [+V]—represents the class of “verbs and adjectives that permit the structure resulting from the deletion of that”.) Cf. fn. 12 below for a first approximation to the form the related filter of Italian should take. Filter (53) is repeated below as (10).} which will be seen to play a more extensive role in the syntax of the complementizer system of modern standard Italian. For our purposes, this seems to exhaust the theoretical and language-specific apparatus needed.

A few examples will illustrate the interaction of the above-mentioned principles and rules in the derivation of Italian (restrictive) relative clauses.

Consider the derivation of (1a). Applying Move $\alpha$ to an initial structure essentially of the form (2),
(2) \[s\{NP [la proposta] [s\{COMP - WH \[s\{NP wh\} è stata fatta]] è assurda]\] we arrive (simplifying somewhat) at (3),

(3) \[s\{NP [la proposta] [s\{COMP\{NP wh\}_37 - WH \[s\{NP e\}_37 \} è stata fatta]] è assurda]\]

where \[NP e\_37\] is the trace of \[NP wh\_37\] with an arbitrary index assigned as a consequence of the movement.

We will not consider at this point the coindexing procedure of LF mentioned above. See section 2.2 below.

Consider, instead, the rule of free deletion in COMP under the interpretation illustrated above. Its application gives rise to no violation of the principle of recoverability since the relativized NP is nondistinct from the head NP. Thus, it may apply, and, in fact, it must apply if the structure is not to be discarded.

The result of the deletion will be as follows:

(4) \[s\{NP [la proposta] [s\{COMP \[\phi - WH \[s\{NP e\} è stata fatta]] è assurda]\] In accord with EST conventions, we assume here that the subordinate sentence introducer (complementizer) \textit{che} is the expansion of \(- WH\), which in turn is expanded from the node COMP. Recall that base and transformational rules (of the core grammar) are taken to be optional, in the framework adopted here. If \(- WH\) is expanded to \textit{che}, we derive (1a,b), as desired, under either choice of pronoun. On the other hand, consider the case where \(- WH\) is not expanded (or, for that matter, the analogous case where COMP is not expanded). In modern Italian, structures corresponding to (1a,b) in which \textit{che} is omitted are ill-formed. For example:

(5) a. \*\[NP La proposta è stata fatta] è assurda.  
b. \*\[NP La proposta avete fatto] è assurda.

Thus, some (principled) account must be found which will account for their "unexpected" status.\footnote{Recall that the feature \textit{wh}, being transformationally inserted, is "noninherent" and, thus, does not count in the evaluation of (nondistinctness. See Chomsky (1965, 177–182) and Kayne (1976, 272). For cases where the general rule Move $\alpha$ moves a constituent to COMP which is distinct from the head NP, see below.}

In the spirit of Chomsky and Lasnik’s (1977) discussion of partly similar facts in English, we take it that the ungrammaticality of (5) is not unrelated to that of ordinary cases of complementation like (6a–d),

(6) a. \*Sapevo [\(s\) era stanco],  
'I knew he was tired.'

b. \*Mi dicono [\(s\) i ragazzi sono appena arrivati].

'I am told the boys have just arrived.'

\footnote{In this connection, it should be observed that in older stages of Italian such forms as (5a,b) were grammatical. Cf., among others, Noordhoff (1937, 12).}
c. *E’ triste [s lei sia ubriaca].
   ‘It is sad she is drunk.’

d. *[Giorgio beva] lo sanno tutti.
   ‘(That) Giorgio drinks, everybody knows it.’

where the complementizer is equally absent from the subordinate clause, with similar
consequences for grammaticality.

The ill-formedness of (5a,b) may thus be a particular instance of a more general
property of Italian whereby the COMP position of a tensed subordinate clause cannot
be null, except apparently in a very restricted (and stylistically marked) class of cases.\(^\text{12}\)
These cases are in general very poorly understood. Even a brief discussion of them
would take us too far away from our present goals. Tentatively, we assume that some
filter related to Chomsky and Lasnik’s filter (178) will account in a sufficiently general
fashion for (5a,b) and (6) above (cf. fn. 12).

\(^{12}\)The very few exceptions seem to have roughly the following properties: (a) the subordinate clause is
a complement to a V or Adj; (b) the tense of the clause is subjunctive. Compare (6a-d) with (ia–c):

(i) a. Non sapevo fosse malato.
   ‘I did not know he was (subjunctive) ill.’

b. Credo sia arrivato Piero.
   ‘I think Piero has (subjunctive) arrived.’

c. *E’ una disgrazia sia cost basso.
   ‘It is a pity he is (subjunctive) so short.’

A first statement of these restrictions might take the form of the following filter (cf. Chomsky and Lasnik
(1977, 486)):

(ii) *[a NP tense VP] unless \(\alpha \neq \) NP and is adjacent to and in the domain of \([+F]\) or \([COMP X]\) (where
X represents phonological material: either che or a wh-phrase)

The feature ‘\(+F\)’ may be seen as a convenient way to represent the class of verbs and adjectives that govern
subjunctive in their complements, the only class of predicates that permit deletion of che. Strictly speaking,
it may be incorrect to posit a feature ‘\(+F\)’, shared only by those predicates that select a subjunctive, since
selection of a subjunctive is not always a lexical property (contrast (iii) with (iv), where it is the presence of
non ‘not’ that makes the difference):

(iii) *Sapevo che tu fossi malato.
   ‘I knew you were (subjunctive) ill.’

(iv) Non sapevo (che) tu fossi malato.
   ‘I didn’t know you were ill.’

\(\alpha\) must be distinct from NP, since structures such as (v) are ill-formed:

(v) *Volevo [s non una ragazza [s sapesse cucinare]].
   ‘I wanted a girl could (subj.) cook

Notice also that no reference to NP is made in the ‘unless’ condition of the filter for Italian (in contrast to
the related English filter, (i) of fn. 9). This is because no sentences such as La proposta [Gianni ha fatto] è
assurda are grammatical in Italian (in contrast with the English equivalent The proposal Gianni made is absurd,
which is grammatical). That is, the filter must be operative in Italian even if \([a\) NP tense VP] is adjacent to
and in the domain of NP. For the case of root sentences, see the discussion in Chomsky and Lasnik (1977,
486–487). Finally, for those who detect a clear contrast between (ia,b) and (vi),

(vi) a. *Non sapevo [s Giorgio fosse malato].
   ‘I didn’t know Giorgio was ill.’

b. *Credo [s Piero sia arrivato].
   ‘I think Piero has arrived.’

a further clause is needed in the ‘unless’ condition of (ii); perhaps to the effect that the NP should not be
lexical (but only trace or null). There is a certain amount of variation, and problems remain which deserve
much closer attention than we can devote to them here.
Notice that a direct consequence of the analysis so far sketched is that the *che introducing relative clauses in Italian is not a relative pronoun but rather the complementizer *che of ordinary subordinate clauses. This accounts for the first of the two facts observed above and left unexplained under the traditional account. Precisely the same considerations hold for (1b), in which an object is relativized rather than a subject.

Let us consider now the case where a PP (containing the relativized NP), rather than just an NP, is moved to COMP by Move α. By applying Move α to an initial structure like (7), underlying (1c), we get (8):

\[ (7) \ [s [np [np la proposta] [s [comp - wh] [s parlerò [pp di [np wh]]]]] \ldots ] \]

\[ (8) \ [s [np [np la proposta] [s [comp [pp di [np wh]]] - wh] [s parlerò [pp e]]]] \ldots ] \]

If the rule of deletion in COMP were to delete the entire PP, there would be a violation of recoverability. The PP is distinct from the head NP. On the other hand, the result of deleting just the *wh-NP, which is nondistinct from the head NP, is just as bad. It may be that whatever principle excludes preposition stranding in Italian (cf. fn. 5) will apply here (for somewhat different, or, maybe, additional, reasons why the latter case of deletion is illegitimate, see Chomsky and Lasnik (1977, 446 and fn. 43), Cinque (forthcoming)).

This accounts for the fact that a sentence like *La proposta che parlerò è già nota is ill-formed in the intended sense of (1c), as is *La proposta di parlerò è già nota.

Structures like (8) in which −WH does not expand to *che correspond to well-formed sentences. Depending on where the *wh feature has been attached within the NP, they will be realized as the structures represented by (9a,b):

\[ (9) \ a. \ La \ proposta \ di \ cui \ parlerò. \ldots \]

\[ b. \ La \ proposta \ della \ quale \ parlerò. \ldots \]

Notice, on the other hand, that if −WH expands to *che, the resulting structure (*la proposta di cui (della quale) che parlerò . . . ) will be ill-formed (in standard Italian). This is taken care of within this system by Chomsky and Lasnik’s filter (53) (= (10)),

\[ (10) \ *[comp wh-phrase ϕ] where “ϕ” is nonnull \]

which is again language-specific.\(^\text{13}\) Identical considerations hold for the remaining cases of (1).

It is therefore an automatic consequence of the general principles and conventions of EST (in particular those governing the syntax of the complementizer system) that *che and the relative pronouns are in strict complementary distribution. This accounts for the second fact left unexplained under the traditional account which considered *che a relative pronoun. Reduced to essentials, this property follows from the structure-dependent nature of the deletion rule in COMP. Subject and object NPs, when relativ-

\(^\text{13}\) Middle English did not possess it and the dialect spoken today in the Veneto district does not seem to possess it either (cf. el posto dove che semo ndai ĝeri ‘the place where that we went yesterday’).
ized, will give rise to a relative clause introduced by che simply because they are "bare" NPs, nondistinct from the head NP, and thus can—in fact, must—be deleted. Various types of complements which are realized by a $[_{PP\ P\ NP}]$ structure, in Italian, will not be deletable in COMP, since they would lead to a violation of recoverability.

2.2. We will consider now, in more detail, the nature of the above-mentioned general procedure to ensure the coindexing of the relativized NP with the head NP. We will also see that a certain formulation of that procedure can be made to interact in an interesting way with the general rule Move $\alpha$, with the effect of reducing the overgeneration that the rule intrinsically induces.

Following Cinque (1978), we assume here that such a procedure is plainly the very general rule Coindex (an NP with a c-commanding NP) of Chomsky (1980), applying in the relativization structure (of obligatory control) (11):

$$ (11) \ [_{NP\ NP\ [_{SL\ COMP\ \ldots\ NP\ \ldots\ ]\ \ldots\ ]]\ldots] $$

Notice that no special stipulations may be required for this rule to apply in the desired way, if it is the case that the only NPs found in COMP are NPs containing the feature $wh$. In particular, there is no need to mention the feature $wh$ or, for that matter, the forms $cui$ or (art. $+$) $qual$- which we take to be "anaphors" in (11) (in the technical sense of Chomsky (1980)). Thus, we may retain Coindex, applying to (11) in its most general form, rather than having a separate construal rule apply to assign coreference to $cui$ (or (art. $+$) $qual$-) with an appropriate antecedent. This has interesting consequences.

We are assuming that some appropriate version of the A-over-A Principle constrains the application of construal rules (as well as other rules; see Chomsky (1973) for relevant discussion). Given the hypothesis that Coindex itself applies in (11), subject to the A-over-A Principle, with $cui$ and (art. $+$) $qual$- being anaphors, a first consequence is that, in all those cases where the general rule Move $\alpha$ fronts an NP larger than (and containing) the $wh$-NP, the structure will be blocked (by the A-over-A Principle). 14 This is in fact what we observe in the data:

14 We are assuming here a "nonabsolute" interpretation of the A-over-A Principle as discussed in Chomsky (1973) (for a different interpretation, see Van Riemsdijk (1974), Kayne (1975)). Notice that, given this interpretation, the grammaticality of such sentences as (ia,b) in English is not a difficulty for our analysis of (12)–(13).

(i) a. $[_{NP,\ they}]$ expected $[_{S\ that\ [_{NP,\ each\ other}]\ would\ be\ on\ sale}]$
   b. $[_{NP,\ they}]$ expected $[_{S\ [_{NP,\ pictures\ of\ [_{NP,\ each\ other}]\ to\ be\ on\ sale}]\ldots]$

The contrast in fact follows if we consider the crucial difference between (i) and (12)–(13) to reside in the different statement of the two construal rules involved: (1) "Coindex each other" (with a plural NP) and (2) "Coindex (NP)". In (i), the construal rule is not blocked by the A-over-A Principle since it specifically mentions the form of the "anaphor" each other. That is, it does not mention an NP in picking out NP$_2$, in (i). The rule involved in (12)–(13), on the other hand, makes specific reference to an NP; so, when applied, it will pick out the more comprehensive NP, NP$_2$, not NP$_1$, with the consequence of leaving the latter without an index—a status not admitted in LF. Notice also that the contrast between (i) and (ii),

(ii) *it is a nuisance (for us) $[_{S\ for\ [_{NP\ pictures\ of\ [_{NP\ e] burn]}\ to\ be\ on\ sale}]$ noted by Chomsky (1980) and left unexplained there, follows under this approach. The rule operative in (ii) is Coindex, just as in (12)–(13).
(12) a. *Questo è il ragazzo [S[NP2 la sorella di [NP3 cui]] è venuta ieri].
   b. *Questo è il ragazzo [S[NP2 la sorella del [NP3 quale]] è venuta ieri].

   ‘This is the boy the sister of whom came yesterday.’

   b. *Il libro [S dal [NP2 frontespizio del [NP3 quale]] ho ricavato questa idea] è questo.

   ‘The book from the front cover of which I got this idea is this.’

In both (a) and (b) of (12)–(13), the rule Coindex applies inappropriately and thus the structures are thrown out.\(^{15}\)

A further interesting consequence of interpreting *cui* and (art. +) *qual-* as ‘anaphors’ in the restrictive relative construction of Italian is the fact that structures derived with Move α applying to sentential phrases are also blocked:

(14) *Il ragazzo [S[S per telefonare a [NP cui]] era rimasta a casa] non c’era.
   ‘The boy to call up whom she had remained at home was not there.’

(15) *Quello è il monte [S[S trovandoti sopra [NP cui]] puoi vedere l’eclisse].
   ‘That is the mountain being on top of which you can see the eclipse.’

(16) *La barca [S[S montati su [NP cui]] sono andati a picco] era di Giorgio.
   ‘The boat embarked on which they sank belonged to Giorgio.’

Under this interpretation, their ungrammaticality is traced to a violation of Opacity (see Chomsky (1980)). In each of them, there is a free anaphor, *cui* (or (art. +) *qual-*) in S in the domain of the (PRO) subject of S.\(^{16}\)

We thus find that the desired reduction of a significant class of overgeneration induced by the very general rule Move α is provided by the simple hypothesis that *cui* and (art. +) *qual-* are ‘anaphors’, in (11). Cf. also Kayne (1978).

2.3. So far the properties of the restrictive relative clause system of Italian essentially mirror the situation of the French system described in detail by Kayne (1976). In fact,

\(^{15}\) In a more marked style of Italian, the (b) examples become marginally acceptable, in contrast to the (a) examples, and can in fact be improved by replacing the indicative form with a subjunctive or an infinitival form. In Cinque (1978), we argue that this has to do with the double status of (art. +) *qual-*, in the appositive construction, as either an ‘anaphoric’ or a ‘lexical’ element (whereas *cui* is always an ‘anaphor’). What is important here, in any event, is that the less deviant status of the (b) examples vs. the (a) examples, as *restrictives*, seems to be best analyzed as a derivative phenomenon (cf. Cinque (1978)), and thus needs not affect our analysis of (12)–(13) in terms of the A-over-A Principle. We would analyze such French cases as (iv) of fn. 7 in a similar way (see Cinque (forthcoming)).

\(^{16}\) In this connection, consider interesting minimal pairs such as (ia,b):

(i) a. Il fiume lungo cui spingeva la sua barca, . . .
   ‘The river along which he pushed his boat, . . .’

b. *Il fiume correndo lungo cui puoi ancora incontrare dei bei paesaggi, . . .
   ‘The river running along which you can still find nice landscapes, . . .’

Substituting *cui* with (art. +) *qual-* in (ib) (and (14)–(16)) will lead to an improvement in grammaticality (within the marked style alluded to above) for the reasons hinted at in fn. 15.
our analysis has followed, in the terms of Chomsky (1980), the basic idea of Kayne (1976) (cf. also Klima (1964); Chomsky (1973)). Italian, however, seems to offer a further interesting confirmation to this line of analysis, in that it displays a neat class of facts for which the above analysis can be extended to make nontrivial predictions.

The general prediction of the analysis just sketched is that, should there be other types of “nominal positions” that do not take a preceding preposition, the relative clause constructed relativizing on them would necessarily be introduced by che. This is, in fact, borne out in an interesting way.

Two more nominal positions exist in Italian that are not preceded by a preposition, namely predicative (postcopular) NPs and (some) temporal adverbials:\footnote{In this connection, a possible problem for the analysis proposed here (originally pointed out to me by R. Kayne) is the existence, in a more formal style of Italian, of relative clauses introduced by a prepositionless (dative) cui, as in (i):

(i) La legge cui ho fatto riferimento, . . .
   ‘The law which I have referred (to) . . .’

The analysis we have developed here appears to lead us to expect (incorrectly) that, in sentences like (i), cui, being prepositionless (and thus nondistinct from the head, under ordinary assumptions) should delete, giving such sentences as (ii), rather than (i):

(ii) *La legge che ho fatto riferimento . . .

We do not have space here to deal with this problem in any detail. For possible solutions, which remain yet rather speculative, we refer the reader to Kayne (1980) and Cinque (1978).}

(17) Era un gentiluomo.
   ‘He was a gentleman.’

(18) La proposta Banfi era stata bocciata il giorno prima.
   ‘The proposal made by Banfi had been rejected the day before.’

In both cases, the relative clause constructed relativizing on them is introduced by che:

(19) Il gentiluomo [s che era] gli impedì di reagire in malo modo.
   ‘The gentleman that he was prevented him from reacting nastily.’

(20) Il giorno [s che la proposta Banfi fu bocciata] non c’era nessuno.
   ‘The day that the proposal made by Banfi was rejected nobody was there.’

The case of temporal adverbials is even more interesting from this point of view. Notice that the following three possibilities exist with regard to the presence of a preposition in front of temporal adverbials in Italian:

(a) Certain temporal adverbials optionally take a preposition:

(21) La proposta Banfi è stata discussa \{in quel giorno\}.\{quel giorno\}
   ‘Banfi’s proposal was discussed (on) that day.’

\footnote{In this connection, a possible problem for the analysis proposed here (originally pointed out to me by R. Kayne) is the existence, in a more formal style of Italian, of relative clauses introduced by a prepositionless (dative) cui, as in (i):

(i) La legge cui ho fatto riferimento, . . .
   ‘The law which I have referred (to) . . .’

The analysis we have developed here appears to lead us to expect (incorrectly) that, in sentences like (i), cui, being prepositionless (and thus nondistinct from the head, under ordinary assumptions) should delete, giving such sentences as (ii), rather than (i):

(ii) *La legge che ho fatto riferimento . . .

We do not have space here to deal with this problem in any detail. For possible solutions, which remain yet rather speculative, we refer the reader to Kayne (1980) and Cinque (1978).}
(b) Certain temporal adverbials *obligatorily* take a preposition:

(22) La proposta Banfi sarà discussa \{ in quella occasione \}.  
     ‘Banfi’s proposal will be discussed on that occasion.’

(c) Certain temporal adverbials *never* take a preposition:

(23) Gianni sbaglia \{ ogni volta \}.  
     ‘Gianni makes a mistake every time.’

This is a situation that allows us to put to test the analysis so far assumed. If the analysis is correct, we should expect a tripartite situation when relativizing on temporal adverbials. We should expect that, relativizing on an adverbial of class (a), the relative clause will be introduced either by a P plus a relative pronoun or by *che*, depending on whether a preposition has been selected for the adverbial position in the relative clause, or not.

On the other hand, we should expect that, relativizing on an adverbial of class (b), the relative clause may never be introduced by *che* but will invariably be introduced by P plus a relative pronoun.

Finally, we should expect that, relativizing on an adverbial of class (c), the relative clause will only be introduced by *che*, never by P plus a relative pronoun.

This is in fact the complex situation we observe in the data:

(24) Il giorno \{ che in cui \} è stata discussa la proposta Banfi, . . .  
     ‘The day (on) which Banfi’s proposal was discussed, . . .’  
     (Compare with (21).)

(25) Per l’occasione \{ che in cui \} si discuterà la proposta Banfi, . . .  
     ‘For the occasion on which Banfi’s proposal will be discussed, . . .’  
     (Compare with (22).)

(26) Dalla volta \{ che in cui \} \{ nella quale \} l’ho conosciuta, non l’ho più vista sorridente.  
     ‘Since the time I met her, I have never again seen her smile.’  
     (Compare with (23).)

2.4. The same line of reasoning that allows us to construct the above predictions and thus to explain facts like (24)–(26) can be extended to make a prediction about some closely related semantic facts.
A number of adverbials entering class (a) select (partially) different senses depending on whether they are preceded by a preposition or not. Take the following example:

(27) a. Mi prendo le ferie nella settimana di Pasqua.
    ‘I will go on holidays for Easter week.’

b. Mi prendo le ferie la settimana di Pasqua.
    ‘I will go on holidays Easter week.’

(27a) can only mean that I will be on holidays for a period which falls exhaustively within the limits of the week including Easter Day. (27b) may be interpreted this way, but also in a second way; namely, that the period of my holidays will begin in the week including Easter Day but need not end within that week.\(^{18}\) (27b) is thus vague between these two interpretations. What we may expect, now, given the analysis sketched above, is that this subtle, but, I think, real, semantic difference is carried over to the interpretation of the relativized adverbial in the corresponding relative clauses. The relative clause introduced by P plus a relative pronoun will have only the single interpretation of (27a), whereas the relative clause introduced by che will have the two interpretations of (27b), since its source can only be a “bare” NP such as the one in (27b). Compare:

(28) a. La settimana \{\text{nella quale} \text{in cui}\} mi prendo le ferie è la prossima.
    ‘The week in which I go on holidays is the next one.’

b. La settimana che mi prendo le ferie è la prossima.
    ‘The week that I go on holidays is the next one.’

The prediction seems to be borne out according to the judgments of native speakers about the interpretation of (28a,b). Again this is a direct consequence, in a partially different domain, of the analysis assumed above.

3. We will now compare this analysis of the (restrictive) relative clause system of Italian with the entirely different analysis forced by the general framework proposed in K&C to account for some universal aspects of (restrictive) relativization.

Essentially, they claim that natural languages may employ (among others) either of two general strategies of relative clause formation.\(^{19}\)

Depending on whether or not a nominal element is present in the restricting clause “that unequivocally expresses which NP position is being relativized”, they distinguish

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\(^{18}\) Some people find that even (27a) may have this latter interpretation, although the other is the preferred one for them too. This has no effect on the argument that follows. In this case, we should expect the same judgments to carry over to the corresponding relativization with P plus a relative pronoun.

\(^{19}\) We abstract here from a further (cross-classifying) criterion they propose to distinguish among relative clause formation strategies. This is based on the relative position of the head NP and the restricting clause—the respective strategies are called prenominal, postnominal, and internal strategies—and thus appears to be irrelevant to the point being made here.
a "case coding" strategy and a "non-case coding" strategy, respectively (henceforth, "+case RCS" and "−case RCS").

They observe that the number and type of NP positions that can be relativized may vary from language to language and are dependent on the strategy employed, in a way that does not seem to be entirely random.

In particular, they claim that the general accessibility of an NP position to relativization "is universally dependent on that of others" and that such relative accessibility to relativization of NP positions may be expressed essentially by the following (accessibility) hierarchy (AH) (p. 66):

Subject > Direct Object > Indirect Object > Oblique Object > Genitive > Object of Comparison
(where ">" means 'is more accessible than')

The core of their proposal consists in three putatively universal conditions on relativization based on such a hierarchy, which they refer to as the Primary Relativization Constraint:

(29) a. A language must have a primary RC-forming strategy. [where by primary RC-forming strategy K&C mean a strategy that "can be used to relativize subjects"/GC]

b. If a primary strategy in a given language can apply to a low position on the AH, then it can apply to all higher positions.

c. A primary strategy may cut off at any point on the AH.

Of these conditions, (b) and (c) seem to be directly relevant to our case. Their relevance resides in the fact that the Italian evidence we have discussed above appears to constitute a serious difficulty for them, given some reasonable assumptions within the spirit of Keenan and Comrie’s framework.

Notice that they are forced to analyze the (standard) Italian restrictive relative clause system as involving two different strategies: the first a -case one, in relation to subject, direct object, predicative, and (temporal) adverbial NP positions, since these are characterized by an invariable relative particle che (not preceded by a preposition) and a gap in the restricting clause corresponding to the relativized position; the second a + case one for all the other positions, since these explicitly express the function of the relativized nominal by means of a relative pronoun preceded by the appropriate preposition.

The particular means by which a language explicitly expresses which NP position has been relativized may vary among languages (or within a single language), including resumptive pronouns in the restricting clause (as, partially, in Hebrew), or case inflected relative pronouns (as, for example, in Russian), or relative pronouns preceded by the appropriate preposition (as, partially, in standard Italian). Note, incidentally, that the distinction they propose for relative clause formation strategies cross-cuts the formal distinction assumed within EST (cf. Chomsky (1977)) between a "strategy" involving wh-movement and one involving a base-generated resumptive pronoun in the restricting clause. These two views do not seem to be compatible in principle. If correct, the main point of this article may, in fact, be taken as an indication that the latter view is empirically superior to the former.
This is, in fact, how they seem to analyze the case of Italian in their table 1 of p. 77. Notice, however, that they take the -case strategy to cover just the subject and direct object NP positions, since their hierarchy does not contemplate a position for either predicative NPs or adverbial (place and time) complements.²¹

If we extend their hierarchy, at least tentatively, on the basis of our evidence from Italian, to include the two missing positions, it seems that only two choices are available which preserve the empirical content of their condition (b) of (29) intact. Either one supposes that predicative and temporal adverbial NP positions are placed in the hierarchy between the direct object NP position and the indirect object NP position, so that they constitute a continuous segment with subjects and direct object NPs, or, assuming predicative and temporal adverbial NP positions not to be adjacent to the direct object NP position, one denies that the RC-forming strategy used for them is the same as that used to relativize subject and object NPs. For, assuming the RC-forming strategy to be the same for all four positions, and assuming predicative and temporal adverbial NP positions not to be adjacent to the direct object NP position, one would face a neat counterexample to their condition (b) (of (29)), since the same strategy could not be used to relativize the intervening indirect object position (and possibly others). As it is difficult to see, in the light of the available evidence, how one could seriously maintain, in K&C's system, that the RC-forming strategy used to relativize predicative and temporal adverbial NP positions in Italian is different from the one used to relativize subject and direct object NP positions, we will take only the former alternative, above, as worthy of consideration.

It is not clear whether a revision of K&C's AH along the lines required to save condition (b), namely something like (30),

(30) Subject > Direct Object > Predicative NP > Temporal Adverbial > Indirect Object > Oblique Object > Genitive > Object of Comparison²²

has any independent cross-linguistic basis. Even supposing it should turn out to be compatible with known facts, we see, in any event, at least two problems with it: first, such revision of K&C's AH drastically reduces the general applicability of the hierarchy, which is thought to be relevant in accounting for universal aspects of such other unrelated phenomena as causative constructions and advancement processes. These are phenomena which seem to require a hierarchy with subjects, direct objects, and indirect objects constituting a continuous segment (see K&C, pp. 95–96 and references cited there).²³

²¹ Their position OBL is meant to refer just to NPs "that express arguments of the main predicate, as the chest in John put the money in the chest rather than ones having a more adverbial function like Chicago in John lives in Chicago, or that day in John left on that day" (p. 66).

²² A separate question is what place place adverbials (benefactives of various sorts, etc.) occupy in the hierarchy. We will not say anything further here, partly because the question is largely irrelevant in this context. Notice, however, that in K&C's framework place adverbials have to be dissociated from the otherwise syntactically similar time adverbials since they employ different RC-forming strategies; and this for no principled reason in their framework.

²³ This seems especially true for the version of Relational Grammar advocated by Perlmutter, Postal, Johnson, and others.
The second problem is more minute but not trivial. Again, it is not clear how even such a revision of the AH can account for the behavior of Italian temporal adverbial complements, which show—as indicated above—a threefold possibility with regard to relativization.

In K&C's terms, some such temporal adverbials would appear to employ a -case RC-forming strategy; others would appear to use a + case RC-forming strategy; and still others would seem to partake in both strategies. Apparently, nowhere in their system, as it stands, can this choice of strategy be related to the prepositional or prepositionless nature of the relativized position (see, however, fn. 24).

At this point, it is interesting to note that whereas such a situation was seen simply to follow within EST from independent principles and rules, in K&C's system it would have to be stipulated somehow (perhaps by positing two (or three) distinct positions for the temporal adverbials in AH).

However, what is more important is that, even granting an acceptable solution to such problems and admitting the reduction in generality of the hierarchy, K&C's system appears to be inherently unable to "predict" that the facts (of Italian) should be the way they are. For their general system would be equally compatible with a different distribution of the relevant facts; for instance, with one in which the -case RC-forming strategy cut off at some other point in the hierarchy, say the indirect object position or the place adverbial position. More generally, within such a system, there is no principled way to predict at which point a given strategy will cut off (in a given language). On the other hand, the EST analysis we have sketched above, insofar as it exposes what subjects, direct objects, predicative NPs, and temporal adverbials have in common (in Italian)—their structural property of being the only prepositionless positions—and insofar as it excludes, on a principled basis, distributions of the facts different from that actually found, may be considered a genuine explanation of the phenomenon.

Looked at from a different angle, this case can be seen as an interesting confirmation of the general explanatory import of the "structure dependence" hypothesis of syntactic rules held within EST.

References

24 An anonymous referee has pointed out the following possibility for trying to save K&C's AH in the face of the uncooperative facts discussed above. This requires that we regard the AH more abstractly and that we complement it with an "orthogonal" property of each language: namely, the possibility or impossibility for that language of stranding prepositions. The case of Italian, then, might be described in the following way. The language allows a -case RCS all the way down the hierarchy but prohibits the stranding of prepositions. Incidentally, this hypothesis would have to be supplemented with some independent principle to exclude (12)-(16). One might even try to see whether many, or all, of the "dividing lines" that K&C postulate for -case RCS in individual languages are determined by the points in those languages at which preposition stranding ceases to be grammatical. As the referee in fact notes, however, the AH so modified would lose much of its intrinsic interest. In fact, it seems to us that it would essentially become a notational variant of the analysis discussed above in terms of EST.


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