

Complement clauses as (free) relatives, complementizers as *wh*-pronouns: refining the picture

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1. Manzini and Savoia (2003 ff.)

- 1.1 (1) a. Mi hanno detto che vieni domani *complementizer*
to.me they.have said that you.come tomorrow
¬they told me that you are coming tomorrowø
- b. Sono quelli che chiamo sempre *relative*
they.are those that I.call always
¬They are those that I always callø
- c. Che fai? *interrogative*
what you.do?
¬What are you doing?ø
- d. Fai che ti pare *free relative*
do what you likes
¬Do as you likeø

1.2 The expressions preceded by *che* in (1) ðhave a similar LF with *che* introducing a variable. The different interpretations stem from the fact that ... *che* binds the internal argument of a verbal predicateø as in (2a); or ð*che* binds a variable with sentential contentø, as in (2b) (M&S 2003: 95). Thus Italian *che*, both as a *wh*- and as a complementizer, is a lambda operator, cf. Arsenijevic (2009). The variable it abstracts over is a propositional variable (restricted by the embedded sentence). In other words complement sentences are free relatives, rather than relatives (cf. Arsenijevic 2009).

- (2) a. [che x [fai (x)]] *interrogative*
b. [che x [x: vieni domani]] *complementizer*

1.3 This proposal is compatible with a conventional syntax, as in (3a) vs. (3b). On the other hand, for M&S (2005, 2011) complementizer *che* heads a nominal projection, as in (4) (Donati 2006 on free relatives).

- (3) a. [_{CP} che [_{IP} vieni domani] *complementizer*
b. [_{QP}che [_{IP} fai] *interrogative*
- (4) [_{QP}che [_{IP} vieni domani]

1.4 ðIn the tradition of Lewis (1975) the sentence introduced by *se* [ʃifø] is interpreted as the restriction of a propositional variable, bound in particular by adverbs of quantification í. As such we expect its syntax to parallel that of the propositional *che* ... For embedded yes-no questions we can again assume that *se* introduces an indefinite propositional variable and this in fact establishes a *wh*-question ranging over the propositionø (M&S 2003:105-106). E.g.

- (5) a. Se piove, non esco
If it.rains, not I.go.out
¬If it rains, I will not go outø
- b. Non so se vado
not I.know if I.go
¬I am not sure whether I will goø

2. Our claim is about UG

Our claim is that a general mode of sentential embedding in natural languages is relative-like, *independently of the presence of absence of lexical identity*. Vice versa we are not implying that different modes of complementation are not possible. Embedding through verbs of saying (i.e. quotatives) is a well-known alternative. Cf. Bayer (1999, 2001) on the double complementation pattern of Bengali: by the *je* form that appears in relative clauses (the Indo-European pattern), or by a quotative element (the Dravidian pattern).

NB: we do not simply claim that the complementizer ðgrammaticalizesø a nominal determiner. Rather we are saying that only the category nominal determiner is real. Complementizer is only a descriptive label for a particular set of occurrences of the nominal determiner.

3. The interaction with (non-)finiteness

- 3.1 (6) Non so che fai/ fare *interrogative:*
not I.know what you.do/to.do *finite/ infinitive*
¬I am not sure what you do / to doø
- (7) a. Mi hanno detto di/*che essere venuti *complementizer*
to.me they.have said to/that be come *fin/ *infin*
¬They told me that they had comeø
- b. il libro da/*che leggere *relative*
the book by/ that to.read *fin/ *infin*
¬the book to read/ be readø

3.2 Finiteness has two components ó one relating to tense/ mood/ aspect, and another relating to agreement. Some Romance languages allow these two components to be distinguished, since they feature agreeing infinitives. The finite complementizer is sensitive not to the temporal/ modal/ aspectual properties of the verb, but to the presence of an agreement inflection (cf. Jones 1993).

- (8) *Paulilatino* (Sardinia)
- a. ... innantis de 'ennere-(ne) 'iccecece *P- (infl) infinitive*
... before to come- 3pl they
÷... before they cameø
- b. ... innantis ki 'ennere-ne 'iccecece *COMP ó infl infin*
... before that come-3pl they
÷... before they cameø

3.3 We assume that the so-called agreement inflection of the finite verb is a lexicalization of the EPP argument of the sentence (Manzini and Savoia 2005, 2007). If no lexicalization of the EPP argument is present, either by an inflection or by a lexical subject, as is the case for non-inflected infinitives, the EPP argument is introduced as a variable at the interpretive interface (Manzini 2009), given a bound reading (control/raising) or a generic reading (arbitrary control).

3.4 We assume that the presence of an EPP variable within the sentence defines an open predicate, rather than a proposition. If the finite complementizer of Romance, (English etc.) takes a proposition as its complement, it will be incompatible with the open expression resulting from the presence of the EPP variable.

4. A prediction: *that-t*

Our analysis predicts that the complementizer will not be able to embed even a finite sentence whose EPP requirement is satisfied by a variable. This essentially is the *that-t* filter (Roussou 2010).

in null subject languages the morphological-level argument (the inflection) suffices to satisfy the EPP (Taraldsen 1978); the latter therefore closes off the proposition even in instances of *wh*-extraction from the EPP position.

In English the solution is dispensing with the complementizer; the French solution may be the same (Sportiche 2011).

5. Resolution of the finiteness problem

- 5.1** (9) a. *Se piove/ piovere, ... *hypothetical:*
if it.rains/ to.rain *fin/ *infin*
-If it rains/ to rain
- b. Non so se esco/ uscire *interrogative:*
not I.know if I.go.out/to.go.out *fin/ infin*
-I don't know whether to go out \emptyset

5.2 We interpreted the interrogative complementizer as a *wh*-element ranging over propositions in the scope of a question operator. We must conclude that this interpretation makes Italian *se* compatible with embedded EPP variables. By contrast, hypothetical *se* in the scope of a generic/ universal closure observes exactly the same restrictions as *che* introducing complement sentences. In other words what removes the finiteness restriction is the question operator.

5.3 If so, we can equally say that the question operator removes the finiteness requirement on individual variable *che*, which can then introduce infinitival questions, though not relatives. This means that the contrast between interrogative and relative *che* does not depend on *che* being a *wh*- phrase in the interrogative sentence and a \neg complementizer \emptyset in the relative clause (*contra* Kayne (1976)); rather,

che in (28b) is the \neg relative pronoun \emptyset (i.e. individual variable) of traditional descriptions.

5.4 While Italian *se* can introduce infinitival questions, neither English *if* nor French *si* can do so (Kayne 1991). In present terms, this means that French *si* and English *if* must embed complete propositions, even if they are construed in the scope of an interrogative operator etc.

6. Other evidence

The non-veridical negation operator, like the non-veridical question operator, removes the finiteness (EPP-completeness) requirement on *che* complements in the free relatives of Italian and on the headed relatives of early Italian (data from Brambilla Ageno 1964).

- (11) a. Non ho carlino che in borsa portare *neg-relative-infin*
not I.have penny that in my.purse carry
-I don \emptyset have a penny to carry in my purse \emptyset
(*Cronica aquilana rimata di Buccio di Ranallo* 136, 6)
- b. Non avevano quasi pane che mangiare *neg-relative-infin*
not they.had almost bread that to.eat
-They hardly had bread to eat \emptyset
(*Le novelle di Gentile Sermini da Siena* 32, 364)
- (12) Non hanno che/da mangiare *neg-free rel-infin*
not they.have what/by to.eat
-They don \emptyset have anything to eat \emptyset

7. A single *che, chi* etc: other problems.

- 7.1** (13) *Fontanigorda* (Liguria)
- a. m aŋ ittu ke te vie dɔpu *comp*
to.me they.have said that you come afterwards
-They told me that you are coming afterwards \emptyset
- b. ke te tʃammi = \neg who \emptyset
who you call
-Who do you call? \emptyset
- c. kuɔse te fɛ
what you do
-What are you doing? \emptyset

7.2 We suggest that it is a lexical property of *ke* that it requires a restriction. In complementizer contexts the latter is provided by the proposition that *ke* introduces. In *wh*-contexts, the restriction to humans may represent an interpretive closure in the absence of lexical restrictions (unlike for Italian *che*).

8. Sportiche (2011)

8.1	(14)	Nom	Acc	Strong relative/ interrogative
		+human	<i>qui</i>	
		-human	<i>quoi</i> [*]	
	(15)	Nom	Acc	Weak interrogative
		+human	<i>qui</i>	
		-human	<i>que</i> ^Ä	
	(16)	Nom	Acc	Weak relative
		±human	<i>qui</i>	<i>que</i>

8.2 (14)-(16) adopt the weak-strong-clitic division in the presence of at best a double series of elements (*que-quoi*) ó yielding an almost entirely syncretism paradigm. For all of this abstractness, there are a number of irreducible asymmetries (e.g. the interrogative and relative paradigm cannot be unified).

9. The relation between lexicon and grammar

Given a morphology M specialized for distribution D, one traditionally says that D + M individuate category C. For instance if there is a specialized nominal ending M for the context 2nd object of ditransitives D, one says that a language has the category -dativeø D+M. When this is tabulated, something like textbook paradigms are obtained ó including lots of -syncretismsø (i.e. the same form Mø for different slots D and Dø etc.). Face to this problem Distributed Morphology embraces Late Insertion, i.e. an anti-minimalist (anti-Inclusiveness) assumption. Exactly as in Optimality Theory, the reality of grammar is a network of distributional constraints D₁, í , D_n, the lexicon is mere flatus vocis (-exponentsø).

The correct relation between the lexicon and the grammar in minimalism (Chomsky 1995) is taken to be projection of structure from lexical properties. The query we have consistently asked (including Manzini and Savoia 2003 etc.) is: what happens if we abandon the traditional view and we take the constraints to be but an emergent property of lexical properties when combined with the principles of UG 8i.e. projected to syntactic structures)?

10. Cardinaletti and Starke (1994), Cardinaletti (1998)

10.1	(17)	Ho parlato a/ di lui/ lei/ loro	strong loro
		I.have spoken to/of him/her/them	
		-I spoke of/ with him/ her/ themø	

* *quoi* never surfaces in the left periphery of finite clauses (as a free relative or interrogative)

^Ä *que* never surfaces in the absence of verb inversion in clauses hence not in matrix short subject extractions (where no T-to-C is available) nor in embedded (finite) questions. All embedded subject extractions are filtered out by *that-t*.

(18)	a.	Ho dato loro/*lui/*lei un libro	weak loro dative
		I.have given them/him/her a book	
		-I gave him/her/them a bookø	
	b.	Il loro/*lui/*lei libro	weak loro genitive
		The their/his/her book	
		-Their/his/her bookø	
(19)		L'uomo a/ di cui ho parlato	strong cui
		The man to/ of whom I.have spoken	
		-The man of/ with whom I spokeø	
(20)	a.	L'uomo cui diedi il libro	weak cui dative
		The man whom I.gave the book	
		-The man to whom I gave the bookø	
	b.	L'uomo il cui libro ho recensito	weak cui genitive
		The man the whose book I.have reviewed	
		-The man whose book I reviewedø	

10.2 Strong *cui* is not human

(21)	La cosa a cui mi sono dedicato
	The thing to which myself I.am devoted
	-The thing which I devoted myself toø

Weak (genitive) *loro* can be coordinated

(22)	Per loro e nostra fortuna
	for their and our luck
	-For their and our luckø

Weak (genitive) *loro* can be modified by *too*.

(23)	Per fortuna anche loro (non solo nostra)
	for luck also theirs (not only ours)
	-For their luck as well (not only ours)ø

10.3 The really robust properties are distributional, here (17)-(20). What Cardinaletti and Starke say is that the CP-like layer of strong pronouns is associated with case ó and Romance *a* is characterized in the literature as a pure case marker. The weak pronouns, that lack these layer, have to sit in a position where they get case via agreement, namely a [Spec, Agr] position.

11. *loro* and *cui* without the strong ó weak divide

11.1 Morphological analysis of *cui* supports the conclusion that it is overtly case-marked for oblique (cf. Romanian *b iat-ul-u-i* -boy-def-m-oblø). Its distribution is explained if we assume it to be oblique: i.e. it supports genitive/ dative readings without need for prepositions (exactly like Romanian *b iatului*) as well as other prepositional embeddings.

11.2 Personal pronouns including *lui*, *lei* (despite the obvious etymological

connection to obliques) are not intrinsically case marked, excluding the distribution of oblique *cui*.

11.3 Morphological analysis in turn reveals that *loro* is formed from the definiteness base *l* followed by an oblique inflection *óoro* (cf. Romanian *b ie -i-l-or* 'boy-mpl-def-obl'). Its distribution follows if *loro* can be construed as oblique appearing in Object Shift and genitive position *ó* or can be construed as non case marked, in which case it has the distribution of *lui/ lei*.

In terms of the \neg weak \emptyset vs. \neg strong \emptyset pronoun distinction of Cardinaletti and Roberts the \neg syncretism of the two *loro* is accidental. In present terms *loro* is \neg syncretism \emptyset between oblique and plural. Manzini and Savoia (2011 ff.) explain it through a $Q(\supseteq)$ operator (roughly \neg inclusion \emptyset) which yields the \neg possessor \emptyset reading when it has the Appl head scope *ó* or a plural (roughly an existential closure over a subset of the lattice of which predicate denotation consists).

12. Poletto and Pollock (2009)

12.1 The Mendrisio (Ticino) variety displays a \neg tripartite distinction among wh-items: not only does it have clitic and strong (\neg tonic \emptyset) wh-items *í* but also weak wh-words \emptyset

12.2 (24) *Olgiate Molgora* (Lombardy)

a. se/ kuza fa la ku'zε clitic= weak distribution
 what does she what
 \neg What do she do? \emptyset^*

b. ku'zε fa la =strong distribution
 what does she
 \neg What does she do? \emptyset

(25) *La Strozza* (Lombardy)

ki tʃamet ki clitic/weak = strong form
 who you.call who
 \neg Who are you calling? \emptyset

12.3 The supposedly weak form *koha* is \emptyset sentence internal \emptyset , given that it is embedded under a preposition; though linearly adjacent to the verb, it is not \emptyset adjacent \emptyset to it structurally. The supposedly strong and weak forms *indo'e* and *in'doe* alternate in sentence final position, linearly non- \emptyset adjacent \emptyset to the verb (i.e. not left adjacent) and \emptyset focal \emptyset (all in violation of P&P \emptyset s criteria).

(26) a. *Grumello* (Lombardy)

koŋ koha al fe:t
 with what it you.do
 \neg What do you do it with? \emptyset

b. alla port el in'doe/ indo'e
 he.it bringshe where

\neg Where does he bring it? \emptyset

13. Manzini and Savoia (2011a): NIDs without the strong-weak divide

13.1 \emptyset There is a clear distributional constraint on wh- clitics, which only appear in the left periphery of the sentence, either alone or doubling wh- phrases in situ. On the other hand non-clitic wh- phrases, including those that Poletto and Pollock (2009) would classify as \neg weak \emptyset and those that they would classify as \neg strong \emptyset equally distribute at the left periphery and in situ \emptyset .

13.1 \emptyset wh- doubling is restricted to couples of bare wh- elements, of which the lower bears Focus properties, while the higher is a (focus-less) scope marker (i.e. not \neg ' ϵ). No role is played by the category of \neg weak \emptyset pronouns \emptyset .

14. French *qui, que, quoi* without the strong \emptyset weak divide?

14.1 The lexicon:

/k/ : wh
 /ə/ . nominal class
 /wa/ : nominal class, lexicalizes inanimate restrictor
 /i/ : nominal class \emptyset lexicalizes either animate restrictor or else pure satisfaction of the D/EPP context

14.2 *Quoi*: wh-, inanimate restrictor (operator-restrictor= \neg phrase \emptyset)
 \Rightarrow * complementizer
 \Rightarrow OK complement of P
 \Rightarrow OK in situ
 \Rightarrow * relative pronoun (by Minimal lexicalization = Sportiche 2011?)
 \Rightarrow * free relative head (by anti-tenseness restriction = Sportiche 2011?)
 \Rightarrow OK interrogative pronoun, only in infinitivals (cf. free relative) & where *que* not available (cf. relative pronoun)

Que : wh-, no restrictor (head on the inflectional spine = \neg clitic \emptyset)
 \Rightarrow OK complementizer
 \Rightarrow OK relative pronoun, non-nominative by Elsewhere (*qui* is nominative)
 \Rightarrow OK interrogative pronoun, non-animate by Elsewhere (*qui* is animate) & only matrix object (by need for V-to-I support = Sportiche \emptyset s 2011?)
 \Rightarrow * complement of P
 \Rightarrow * in situ
 \Rightarrow * free relative head

- Qui*: → *wh*-, animate restrictor (≠phrase)
 ⇒ * complementizer
 ⇒ OK complement of P
 ⇒ OK in situ
 ⇒ OK interrogative pronoun
 ⇒ OK free relative pronoun
 ⇒ * relative pronoun (by Minimal lexicalization = Sportiche 2011?)
- *wh*-, no restrictor (≠clitic), nominative
 ⇒ * complementizer
 ⇒ * complement of P
 ⇒ * in situ
 ⇒ * interrogative pronoun (by need for V-to-I support = Sportiche 2011?)
 ⇒ * free relative pronoun
 ⇒ relative pronoun

14.3 NB. definiteness and animacy form a natural class elsewhere in grammar (e.g. the *a* ≠accusative in Spanish, Southern Italian, etc.).

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