

Subjunctive Relative Clauses

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1. Introduction

In this paper, I intend to focus on the distribution and interpretation of subjunctive relative clauses. My aim is then twofold: (i) to explain what are the contexts that allow (and that ban) the occurrence of subjunctive mood, focusing here mainly in the domain of relative clauses (even if the definition I will propose is meant to cover also the other cases of subjunctive mood clauses); (ii) to derive the different interpretations that subjunctive mood relative clauses get with respect to their indicative mood counterparts.

2. The data

When we focus on relative clauses modifying indefinite expressions, in Italian, and in other Romance languages,¹ subjunctive mood relative clauses may legitimately occur in strong intensional environments, such as those created by the presence of verbs expressing desires or orders (cf. (1)), and they are licensed also in the scope of negation (cf. (2)), antecedents of conditionals (cf. (3)), interrogatives (cf. (4)); whereas they are (ordinarily) banned from episodic statements (cf. (5)).

- 1) Maria vuole che Anna sposi un uomo che sia ricco.
*Maria wants that Anna marries*_{SUBJ.PRES.3SG} *a man who is*_{SUBJ.PRES.3SG} *rich.*
Maria wants Anna to marry a man who is rich.
- 2) Non ho visto un uomo che fosse ricco.
*Not have*_{IND.PRES.1SG} *seen a man who was*_{SUBJ.PAST.3SG} *rich.*
I have not seen a (single) man who was rich.
- 3) Se incontrassi un uomo che sia ricco, lo sposerei.
*If met*_{SUBJ.PAST.1SG} *a man who is*_{SUBJ.PRES.3SG} *rich, him marry*_{COND.PRES.1SG}
If I met a man who is rich. I would marry him.
- 4) Conosci un uomo che sia ricco?
*Know*_{IND.PRES.2SG} *a man who is*_{SUBJ.PRES.3SG} *rich?*
Do you know any man who is rich?
- 5) * Maria ha sposato un uomo che sia / fosse ricco.
*Maria marries*_{IND.PRES.3SG} *a man who is*_{SUBJ.PRES.3SG} / *were*_{SUBJ.PAST.3SG} *rich.*

In all of these environments, the relative clause may be marked with the indicative as well, the choice of mood having an effect on interpretation. This has often been explained in terms of a specific (or referential) vs. non-specific (or attributive) interpretation that the indefinite expression receives in sentences like (1). In English, a sentence like *Maria wants Anna to marry a man who is rich* is ambiguous because it may be used to claim that there exists a certain man that Maria wants Anna to

¹ And in other Romance languages, cf. Quer (1998: 105) for Catalan; Farkas (1992) for Romanian, Kampers-Mahne (1991) for French.

marry (this being the *specific/referential* reading of the indefinite expression *a man who is rich*). Or it may be used to simply express Maria's wish about Anna becoming the wife of a rich man, anyone satisfying this property being a possible option (corresponding to the *non-specific/attributive* reading of the indefinite). In Italian, and in other Romance languages, when the relative clause displays subjunctive marking, as in (1), it forces the non-specific/attributive reading of the indefinite expression, that is, it is by no means possible to derive the existence of a specific man as a possible candidate for Anna's marriage.²

But when we take into consideration relative clauses that modify other kinds of quantified expression, the pattern of data is not that uniform anymore. A universally quantified expression cannot as easily be modified by a subjunctive relative in the environments listed in (2)-(4), whereas it can show up in episodic sentences:

- 6) Ho parlato con ogni uomo che fosse ricco.
*Have*_{IND.PRES.1SG} *talked with every man who were*_{SUBJ.PAST.3PL} *rich*.
 I talked to any man who was rich.

Also in this case, subjunctive may alternate with indicative, and the choice of mood results in a different interpretation. The indicative version of (6) may be used to state a fact – on a given occasion, it so happened that I talked with all the men who were rich; when subjunctive mood is used, the sentence assumes a free choice flavour: for every (possible) man, if that man was rich, then I talked to him.

Another interesting environment is constituted by generic sentences. In Italian, (7) is ambiguous, since it may report an episodic fact, or it may express a generic statement:

- 7) Un cane abbaia.
*A dog barks*_{IND.PRES.3SG}.
 A dog is barking / A dog barks.

If the indefinite *a dog* gets modified by a subjunctive relative clause, then the only available reading is the generic one, whereas if the indicative is chosen, the ambiguity remains.

- 8) Un cane che abbia fame abbaia.
*A dog who has*_{SUBJ.PRES.3SG} *hunger barks*_{IND.PRES.3SG}.
 Any hungry dog barks.

A last puzzling phenomenon is represented by *subtriggering*, that is, the occurrence of relative clauses that save otherwise ungrammatical free choice items in episodic environments. It is well known that free choice *any* is restricted to somehow modalized contexts, and banned from purely extensional ones. Nevertheless, if some material – for instance a relative clause – is added to the *any*-phrase, the sentence is fine. The remarkable fact is that in Italian the relative clause is preferably marked with the subjunctive mood, as in (9):

- 9) Maria ha parlato con qualsiasi uomo le si avvicinasse.
*Maria has*_{IND.PRES.3SG} *talked with any*_{FC} *man to-her cl. come*_{SUBJ.PRES.3SG} *close*.
 Maria talked with any man who came up to her.

² It is quite controversial whether the indicative mood version of the relative clause would still be ambiguous, as the majority of speakers of Italian admit, and as Farkas (1982:93 – but see Quer (1998: footnote 105 on page 121)) claims for Romanian, or whether it would force the specific/referential interpretation of the indefinite, as Quer (1998) maintains for Catalan. What matters here is that the specific interpretation of the indefinite is banned when the common noun is modified by a subjunctive mood relative clause.

3. Previous accounts

Already Quine (1956: 177) noticed that mood marking was able to disambiguate the two readings associated to the English translation of (1). He accounted for the two interpretations (that he labeled the *relational* and *notional* sense – corresponding, respectively, to the specific and non-specific interpretation) by postulating a difference in the *scope* of the existential quantifier: when the relative clause is marked with the subjunctive mood, the existential quantifier is somehow forced to be interpreted within the intensional environment; when it displays indicative mood, the existential quantifier would on the other hand scope out, being thus read referentially.³

As for the readings associated with the relative clauses in the environments listed in (2)-(4), also in these cases subjunctive relative clauses appear to be forced to be below the negation, conditional and interrogative operator, whereas their indicative mood counterparts are at least compatible with a wide scope reading. Thus, in (2) when the verb is in the subjunctive mood, the sentence denies the existence of any rich man I have seen; when *is rich* is in the indicative, it may be taken to mean that there was a specific rich man that I have not seen. Thus, Quine’s explanation may describe the facts, but what is missing is the nature of the link between morphological mood marking and quantifier scope.

Other semantical approaches aimed at answering this question. Roughly, the idea is to posit some requirements on the licensing of subjunctive mood marking, such that these conditions can be met only by the contexts created by strong intensional predicates. Thus, subjunctive relative clauses are forced to be interpreted in the scope of these intensional operators, and they cannot scope out receiving the referential interpretation.

I will here take into consideration only the proposal put forth by Quer in his doctoral thesis, because it represents the most systematic semantical approach on the question I know of. Quer adopts the framework sketched by Giannakidou, based on Farkas’ ideas. In this perspective, subjunctive mood constitutes a polarity phenomenon, since it is licensed only in non-veridical environments. Giannakidou’s definition of the notion of (non)veridicality is the following one: A propositional operator *Op* is veridical if and only if the truth of *Op p* in a context **k** entails (not the truth of the proposition *p tout court*, but) the truth of the proposition *p* in some individual’s epistemic model $M(x)$ belonging to **k**; epistemic models are, *by definition*, BELIEF models $M_B(x)$, DREAM models $M_D(x)$, REPORTED CONVERSATION models $M_{RC}(x)$, and nothing else.⁴

Appealing to this notion of (non)veridicality, Giannakidou aims at explaining the different selectional properties of embedding verbs. Thus, for instance, a *belief*-sentence of the form “ α believes *p*” requires the evaluation of its complement *p* with respect to the epistemic model of the subject α – and it asserts that *p* is one of α ’s beliefs. On the other hand, a *want*-sentence of the form “ α wants *p*” introduces a different model, $M_{Bfut}(\alpha)$, “the set of worlds that the subject α takes to be the future alternatives to her version of the real world”; and such a sentence is true if the worlds (within that epistemic model) that verify *p* are considered to be more desirable than the worlds (within that model) that falsify *p*. In other words, *believe* and *want* differ with respect to their veridical properties: in the former case, one is allowed to draw the inference that *p* is in fact true in the belief model anchored to the subject; in the latter case, this inference is not warranted anymore, since *p* will be true in a subset of $M_{Bfut}(\alpha)$, but false in another subset.

³ Quine’s example is the following one. The English sentence *I’m looking for a dog that talks*, which is ambiguous between the specific/relational and non-specific/notional reading (depending on whether there is a specific, “really existing” talking dog that I am seeking or whether I would be satisfied with any dog as long as he talks), gets disambiguated in Spanish by the choice of mood of the relative clause. The Spanish sentences and the formal translations, which differ in the scope of the existential quantifier, are:

- (i) Procuero un perro que habla_{IND}.
 $\exists x$ (x is a dog & x talks & I seek x)
- (ii) Procuero un perro que hable_{SUBJ}.
 I strive that $\exists x$ (x is a dog & x talks & I find x)

⁴ See Giannakidou (1999: 388).

Quer extends this line of reasoning to the issue of mood alternation in relative clauses. He claims that the role of subjunctive mood marking on a relative clause is to indicate the kind of model that clause needs to be evaluated in: it must be a non-veridical model. Coming back to the examples we started with, in (1), the subjunctive mood of *che sia ricco* (*who is rich*) can only be licensed by a non-veridical environment; that environment can only be the one introduced by *want*, and therefore we obtain the non-specific reading. In other words, the quantified expression cannot scope over the matrix predicate (thus receiving a wide-scope, specific reading), but is forced within the model that is non-veridical.

Adopting this line of reasoning, Quer can account both for the distribution and the interpretation of most instances of subjunctive relatives. Nevertheless, there are some objections. First of all, there are problems connected with the notion of (non)veridicality. Recall that an operator *Op* is veridical if and only if the truth of *Op p* entails the truth of the proposition *p* in some individual's epistemic model *M(x)*; epistemic models are belief, dream, and reported conversation models. The last clause of the definition explicitly lists what are the epistemic models. But this condition does not have any independent motivation, and it therefore appears to be *ad hoc*. For instance, there does not appear to be any principled reason to exclude from this list other kinds of models, for instance a bouletic model.⁵

Moreover, this perspective cannot account for the licensing of subjunctive relative clauses modifying universal quantifiers – since it would probably predict them to be all licensed in the environments listed in (2)-(4), and not licensed in the grammatical (6).

Finally, as for the case of subtrigging, Quer devotes an article (Quer (2000)) to the issue. He claims that the sentences that were viewed as a violation of the licensing condition for free choice items do not constitute real counterexamples to the generalization that free choice items are restricted to modalized or generic environments. That is, a sentence like (9) is not episodic, but it constitutes a modal context, because it involves a habitual or generic operator quantifying over worlds. The only real case of subtrigging (that is, of rescuing an otherwise ungrammatical sentence by adding some modification to the free choice expression) is represented by sentences like:

10) Alla fine del discorso, il presidente ringraziò qualsiasi soldato avesse combattuto nella guerra.

At the end of the speech, the president thanked_{IND.PAST.3SG} any soldier had_{SUBJ.PAST.3SG} fought in the war

At the end of the speech, the president thanked any soldier who had fought in the war.

In Quer's perspective, then, since a sentence like (9) would involve a habitual or generic operator introducing a non-veridical modal base (an assumption I will not discuss here), there would not be problems in explaining the licensing of the subjunctive relative clause. On the other hand, the purely episodic context in (10) calls for a different explanation. Quer's solution is to claim that "the combination of a free choice item and a subjunctive relative clause signals the introduction of a different model of evaluation with quantification over possible worlds that are epistemically accessible to an individual anchor, in this case the subject of the matrix predicate". In other words, *who had fought in the war* should be evaluated with respect to the president's (the subject of the matrix predicate) epistemic model. According to Quer, the necessity of changing the model of evaluation is demonstrated

⁵ See also the criticisms that Mandy Simons moves (in a book review to Giannakidou's published doctoral dissertation which was posted in the Linguist List on the 31st of July 1999) to this clause: «The final clause of the definition [...] stipulates that only three types of model are relevant to determining veridicality: belief models, dream models, and models of reported conversation. This ensures that if there were an additional operator which satisfied clause (i) by virtue of some other epistemic model (for instance a desire model), that operator would not count as veridical. No justification is given, though, why these three form a natural class. The motivation for selecting these models seems to be the observation that APIs [Affective Polarity Items] are [not] licensed in the scope of *believe*, *dream* and *say*. But then we cannot use this definition of [non]veridicality to account for the licensing of APIs in these environments without incurring a circularity». Notice that in her reply to this review (posted on the Linguist List on the 11th of August 1999), Giannakidou admits that she does not provide an adequate answer to the question "why is it that epistemic models are the only relevant models for (non)veridicality".

by the impossibility of adding a parenthetical like “I think”, because this would force the evaluation of the clause in the speaker’s epistemic model.

But now consider (11). In Italian, this sentence is perfectly fine. Nevertheless, the epistemic model of the speaker simply coincides with that one of the subject of the matrix. So, it seems that for these sentences the solution proposed by Quer does not work.

11) Io ho ringraziato chiunque avesse rifiutato la guerra.

I have thanked anyone who had_{SUBJ.PAST.3SG} refused the war.

Summing up, there are some phenomena (namely, the licensing of universally quantified phrases modified by a subjunctive relative clause, and the phenomenon of subtrigging)⁶ that the framework put forth by Quer-Giannakidou cannot account for. This is why I propose to follow another route.

4. The contribution of mood

I propose to associate to the occurrence of subjunctive mood marking a *presupposition*, that is, a licensing condition that states what are the requirements that need to be met for a subjunctive mood clause to be felicitously uttered. In a nutshell, the idea is that, while indicative mood clauses p_{IND} correspond, as is standardly assumed, to the worlds w in which the clause p is true,

$$[[p_{\text{IND}}]] = \lambda w. p \text{ is true in } w$$

subjunctive mood clauses p_{SUBJ} , on the other hand, call for another level of semantic computation: they must be evaluated (that is, judged as true or false) with respect to *sets of worlds*, that I will label $f(w)$, where f is a function that applies to an evaluation world w to give as output a set of worlds. Intuitively, these sets of worlds correspond to modal bases. The presupposition associated to the occurrence of the subjunctive mood only requires the existence of these modal bases – but it has nothing to say about the way these modal bases are construed, and about what they are meant to encode. The presupposition is formulated as follows: a clause that exhibit subjunctive mood marking, p_{SUBJ} , is defined only if, during the computation of the complex sentence that contains p_{SUBJ} as one of its components, p_{SUBJ} is evaluated with respect to modal bases $f(w)$.

$$[[p_{\text{SUBJ}}]] = \begin{cases} [[p]] & \text{if } f(w) \subseteq [[p]] \\ \perp & \text{otherwise} \end{cases}$$

I claim that there are mainly two distinct ways in which the presupposition associated to subjunctive marking may be met – and therefore that there are two types of contexts that license the occurrence of subjunctive mood. The first case is exemplified by matrix predicates that, as part of their meaning, introduce modal bases, against which the subjunctive clause is interpreted. The second possibility is exemplified by the presence of functions f that have as main function the widening of the domain of quantification of the predicate. Let us go through these options.

⁶ There is another objection, that I will here only hint at. Adopting Giannakidou’s hypothesis on the licensing of subjunctive mood, it becomes very hard to explain (2) and (4): if they constitute a non-veridical environment (as the presence of subjunctive mood in the relative clause requires) then also the matrix verb itself should be marked with the subjunctive mood – but this option is not available. This objection does not carry over Quer’s account because he recognizes the existence of two different types of subjunctive, one that is lexically selected by suitable operator, the other that constitutes a polar phenomenon, and that is licensed only in non-veridical environments.

5. Subjunctive mood as a dependent mood

(12) is a matrix indicative mood sentence, and it corresponds to the set of worlds w such that Maria loves Gianni in w . On the other hand, in (13), the subjunctive mood marking on the verb requires that the proposition corresponding to “Maria loves Gianni” be evaluated not directly with respect to worlds of evaluations w , but with respect to modal bases $f(w)$ that are construed from w .

12) Maria ama Gianni.

*Maria loves*_{IND.PRES.3SG} *Gianni*.

Maria loves Gianni.

$[[\text{Maria loves}_{\text{IND}} \text{Gianni}]] = \lambda w. \text{Maria loves Gianni in } w$

13) Che Maria ami Gianni!

*Lit. That Maria loves*_{SUBJ.PRES.3SG} *Gianni!*

May Maria love Gianni!

$[[\text{Maria loves}_{\text{SUBJ}} \text{Gianni}]]$ is defined only if $f(w) \subseteq [[\text{Maria loves Gianni}]]$

Going on with the computation of the meaning of (13), we encounter the sentence-initial *che*, which takes as input a proposition p and asserts that p is true in an “optative” context of evaluation, that I label BOUL_c , that contains those worlds w' that are compatible with what is hoped for in a world w (with respect to a given context of conversation).

$\text{BOUL}_c(w) = \lambda w'. \text{what is hoped for in } w \text{ is realized in } w'$

$[[\text{che!}]] = \lambda p_{\text{st.}} \lambda w. \text{BOUL}_c(w) \subseteq p$

It is now straightforward to see that the function f required by subjunctive mood marking on *ami* (loves) is directly provided by the lexical entry associated to the optative *che*, that is, the clause *Maria loves Gianni* ends up being evaluated with respect to the bouletic modal bases BOUL_c .

$[[\text{Che Maria ami Gianni!}]] = \lambda w. \text{BOUL}_c(w) \subseteq [[\text{Maria loves Gianni}]]$

$= \lambda w. \text{Maria loves Gianni in all the worlds } w' \text{ belonging to the bouletic set construed from } w$

Something analogous happens with subjunctive conditionals. (14) expresses a counterfactual conditional, whose antecedent is marked with subjunctive mood.

14) Se Gianni fosse ricco, Maria lo sposerebbe.

*If Gianni were*_{SUBJ.PAST.3SG} *rich, Maria him marry*_{COND.PRES.3SG}.

If Gianni were rich, Maria would marry him.

Traditionally, a counterfactual of the form *if p, q* is seen as the claim that q is true in all the worlds that verify p , and which are the closest to the world of evaluation w . In order to define this latter set of worlds, Stalnaker-Lewis introduced a function, $\text{SIM}_p(w)$, which from an evaluation world w and an antecedent clause p gives as output the set of those p -worlds that are the most similar to w :⁷

$\text{SIM}_p(w) = \lambda w'. w' \in p \ \& \ w' \text{ is at least as similar to } w \text{ as any other world in } p$

⁷ Actually, Stalnaker-Lewis claim that the similarity function SIM is relativized to the evaluation world w , and takes as input the antecedent itself (i.e., $\text{SIM}_w(p)$).

It is easy to see that the semantical denotation we assign to (14) requires the evaluation of the antecedent (marked with the subjunctive mood) with respect to appropriate sets of worlds (the set of the most similar antecedent-worlds). That is, the function f introduced by subjunctive marking is also in this case interpreted as bound, by the similarity function $\text{SIM}_p(w)$.

$[[\text{Gianni is}_{\text{SUBJ}} \text{rich}]] = \text{is defined only if } f(w) \subseteq [[\text{Gianni is rich}]]$

$[[\text{Se Gianni fosse ricco, Maria lo sposerebbe}]] =$
 $\lambda w. (\text{SIM}_{\text{Gianni is rich}}(w) \subseteq [[\text{Gianni is rich}]] \subseteq [[\text{Mary marry Gianni}]]$

6. Subjunctive mood in relative clauses

As already hinted at, there is another reason that may justify the introduction of modal bases connected to subjunctive mood marking – a reason that has to do with the informational strength of the clause. As a first approximation, we may say that the introduction of modal bases with respect to which to evaluate the subjunctive marked clause is a possible way to *widen* the domain of individuals that fall under the extension of the noun that gets modified by the relative clause.

It is easy to recognize in the environments in (2)-(4) the contexts that also license polarity items (negative and free choice *any*). And an influential approach to this phenomenon linked the occurrence of the negative polarity items to these contexts because of informativeness reasons: roughly, an item like *any* is an existential quantifier that widens the domain of quantification from which it picks up its reference. In normal environments this widening would weaken the claim made (if it is true that “I ate a carrot”, it is also true that “I ate a vegetable” – the domain of vegetables being wider than – a superset of – the domain of carrots); but in downward monotone contexts, like negated sentences, the widening of the domain leads to a stronger claim (thus, if “I did not eat a vegetable”, then “I did not eat a carrot”).

In order to explain the grammaticality of subjunctive relative clauses in the environments like (2)-(4), my plan is the following: to show that the definition associated to subjunctive marking in these constructions may result in a widening of the domain of quantification; at this point, I simply buy the best explanation on the market for the interaction between informativeness, pragmatic constraints and grammatical considerations.⁸

Before analyzing the connection between mood and domain of quantification, I will first present the proposal made by Chierchia (2001/4) (and adopted in Kratzer and Shimoyama (2002)) for accounting for the domain widening triggered by negative polarity items like *any*. The idea is that the normal domain of quantification is usually contextually restricted to a proper subset. That is, an indefinite like *a/some* is indexed with a variable \mathbf{D} that signals the proper relevant subdomain referred to. Using *any*, a speaker signals that the domain of quantification is larger: thus *any* will be indexed with $g(\mathbf{D})$, where g is an increasing function from sets to sets such that $\mathbf{D} \subseteq g(\mathbf{D})$.

The idea that underlies these approaches is that the domain of individuals contains the set of all (real and possible) individuals; usually, in normal sentences, we make reference to a proper subset of individuals – say, the set of salient ones. When negative polarity items are at stake, this domain is enlarged, intuitively making reference to the initial, unrestricted, domain.

My idea is that subjunctive marking does something similar, even if the effect it achieves is obtained not by manipulating the domain of individuals directly, but by changing the extension of the predicates that are true of individuals, and thus ultimately extending the domain. Let us see how, going back to the sentences we started with, focusing here only on the result of modifying a noun by a relative clause in the indicative mood and in the subjunctive mood. In all the examples (1)-(4), the relative clause *who is rich* modifies the noun *man*; that clause, in Italian, may be marked either with the subjunctive mood – as in the examples – or with the indicative mood.

⁸ My proposal will be subject to some of the objections raised against these theories of negative polarity licensing, for instance the question whether all of the environments that license negative polarity items share the downward monotonicity property, and under which assumptions.

I have already alluded to the fact that in a sentence like (2), here repeated, both moods are grammatical; but the subjunctive version in (2a) makes a stronger claim than its indicative counterpart. (2b) may mean that there was a specific rich man I haven't seen – maybe I did see some rich men, but I haven't them recognized as such; (2a) on the other hand claims that of all the men I have seen, I can tell you that none of them was rich. That is, the existence of a rich-man-seeing event falsifies (2b), but not necessarily (2a).

- 2) a. Non ho visto un uomo che fosse ricco.
*Not have*_{IND.PRES.ISG} *seen a man who was*_{SUBL.PAST.3SG} *rich.*
 I have not seen a (single) man who was rich.
- b. Non ho visto un uomo che era ricco.
*Not have*_{IND.PRES.ISG} *seen a man who was*_{IND.PAST.3SG} *rich.*
 I have not seen a man who was rich.

I want to propose that, in order to account for the reading triggered by (2a), there is a function that “revises” the domain of individuals of a given world of evaluation to give them a chance to satisfy the description *be rich*. That is, a function $REV_{be\ rich}$ that applies to a world w , and give as output the set of worlds w' such that in w' a is rich, for any individual a belonging to the domain of individuals in w :⁹

$$REV_{be\ rich}(w) = \lambda w'. \text{ for any } a \in D_w: a \text{ is rich in } w'.$$

Assuming then that the relative clause in (2a) is evaluated with respect to this modal base $REV_{be\ rich}$, it is straightforward to see that this move accounts both for the reading associated to that sentence, and for the occurrence of subjunctive mood marking.

Assume for instance that in a world w the domain of individuals D consists of ten individuals, and that the denotation of the predicate *rich* includes three of them; then, the modal base $REV_{be\ rich}$ will consist of the set worlds in which *all* the individuals have a chance to be rich.

In such a scenario, when we arrive at the computation of *man who is rich*, the domain of individuals that satisfy the description – that is, who are both men and rich – drastically varies, since the subjunctive version of the relative clause leads to an extension of the domain of individuals who are rich.

In “normal” environments the move of domain widening would lead to a weakening of the claim made, but in downward monotone contexts, such as negated sentences, this expansion of the domain leads to a stronger claim. That is, within this perspective, (i) the function f required by Subjunctive marking is associated to $REV_{be\ rich}$, which leads to a widening of the extension denoted by the predicate; (ii) since the relative clause combines with a noun, this has the effect of widening the domain of quantification from which the quantified expression picks its reference; (iii) in downward entailing environments, if the quantified expression is an indefinite, this enlargement of the domain strengthens the claim made. And this should explain why subjunctive relative clauses that modify an indefinite phrase are licensed only in contexts such as those in (2)-(4), and they are banned in “normal”, upward monotone, environments such as (5).

In the explanation proposed above, the presence of the indeterminate pronoun is crucial: only if there is existential quantification over a larger domain it is the case that the claim made is weakened in normal contexts, and strengthened in downward monotone ones. But the prediction is that when a universal quantifier is used, the widening of the domain should lead to a more informative claim in upward monotone environments, and thus the subjunctive should be allowed. And this is precisely what happens. Let us go back to (6), here repeated, coupled with its indicative mood version:

⁹ Notice that the so-defined function is similar to the revision of a world to make it compatible with the antecedent of a counterfactual. In that case, in order to evaluate in a world w a counterfactual assumption (which was therefore false in w), we may define a *revision* of that world, which consists in those worlds w' that verify the maximal set of propositions that are true in w and that are consistent with the counterfactual hypothesis (i.e., with the antecedent).

- 6) a. Ho parlato con ogni uomo che era ricco.
*Have*_{IND.PRES.1SG} *talked with every man who was*_{IND.PAST.3PL} *rich*.
 I talked to every man who was rich.
- b. Ho parlato con ogni uomo che fosse ricco.
*Have*_{IND.PRES.1SG} *talked with every man who were*_{SUBL.PAST.3PL} *rich*.
 I talked to any man who was rich.

The two sentences differ only in the mood of the relative clause: (6b) displays indicative, (6a) subjunctive. And this has an effect also on interpretation: as the English translations indicate, (6b) may be used to claim that in a certain occasion I talked to every man who happened to be rich (in that occasion). But when subjunctive mood is used, the sentence indicates that I talked to *whoever* was rich: maybe I would not be able to identify them anymore, but I can tell you that, for every man, if he was rich, I talked to him.

If we associate the function $REV_{be\ rich}$ to the occurrence of subjunctive marking, an association that is constrained to informativeness requirements, then we predict that when a relative clause modifies a universal determiner like *ogni*,¹⁰ the subjunctive version should be more informative (and thus licensed) than its indicative mood counterpart in upward monotone contexts – as the one in (6). And this fact constituted a puzzle for Quer's account.

As for the other environments that licensed subjunctive relative clauses, that is, the case of subtriggering and generic statements, I will not here analyze them in detail, but the idea would be to link the interpretation of the function f associated to subjunctive marking to whatever gives rise to the generic and the free choice interpretation. As for this latter phenomenon, it would be obviously desirable to propose an unified account of the widening of the domain connected to *any* and to subjunctive marking, but I leave this to future research.

References

- Chierchia G. (2001) "Scalar implicatures, polarity phenomena and the syntax-pragmatics interface", ms. University of Milano-Bicocca, printed in Belletti A. (ed.) (2004) *Structures and beyond vol. 3*. New York: Oxford UP.
- Dayal V. (1998) "Any as inherently modal", in *Linguistics and Philosophy* **21**: 433-476.
- Farkas D.V. (1992) "On the semantics of subjunctive complements", in Hirschbueler P. & Koerner K. (eds.) *Romance Languages and Modern Linguistic Theory*, Amsterdam/Philadelphia: John Benjamins: 69-104.
- Giannakidou A. (1999) "Affective dependencies", in *Linguistics and Philosophy* **22**: 367-421.
- Giorgi A. & Pianesi F. (1997) *Tense and aspect. From semantics to morphosyntax*. New York/Oxford: Oxford UP.
- Kampers-Mahne B. (1991) *L'opposition subjunctif/indicatif dans les relatives*. PhD thesis, University of Groningen.
- Kratzer A. & Shimoyama J. (2002) "Indeterminate pronouns: the view from Japanese", paper presented at the 3rd Tokyo conference on Psycholinguistics.
- Palmer F.R. (1986) *Mood and modality*, Cambridge/Melbourne: Cambridge University Press.
- Portner P. (1999) "The semantics of mood", *Glott international* **4.1**: 3-9.
- Quer J. (1998) *Mood at the interface*, PhD thesis, University of Utrecht.
- Quer J. (2000) "Licensing free choice items in hostile environments: the role of aspect and mood", *SKY Journal of Linguistics* **13**: 251-268.
- Quine W.V. (1956) "Quantifiers and Propositional Attitudes", *The Journal of Philosophy* **53.5**: 177-187.

¹⁰ It is not as easy to find in these kinds of sentences the other Italian universal quantifier *tutti* ("all"), but this may be due to the fact that it necessarily combines with the (plural) definite descriptions *gli* ("the"), and this would create a conflict between the requirement connected with *the* to be able to identify the sets of individuals, and the free choice flavour associated to subjunctive marking. Similar remarks would apply to other determiners like *la maggior parte di* ("most", literally: "the great majority of").

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