Reinforcing negation: The case of Italian

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We study the formal and pragmatic properties of the 'reinforced negation construction' in Italian, which, unlike the regular negative sentence, contains both *non* and an n-word in preverbal position. On the one hand, this construction relies on a more general construction (positive or negative), which is pragmatically associated with reprise assertion, on the other hand, it uses *non* without the usual constraints attached to it. We propose that this unfaithful recycling is a pattern for creating a form dedicated to metalinguistic negation. Our analysis integrates both negative types of negative forms with their formal and pragmatic properties.

1 Introduction

Italian negation displays a well-known asymmetry concerning the co-occurrence of the adverb *non* and a n-word (*nessuno* 'nobody', 'no', *niente*, *nulla* 'nothing'): if the n-word is preverbal, *non* does not occur, if it is post-verbal, *non* must occur.

(1) a. *Paolo non viene*
Paolo NEG comes ('Paolo is not coming')
b. *Nessuno viene / *Nessuno non viene*
Nobody comes / Nobody NEG comes ('Nobody is coming')
c. *Paolo non vede nessuno* / **Paolo vede nessuno*
Paolo NEG sees nobody / Paolo sees nobody
('Paolo does not see anybody')

Nevertheless, there are different cases where *non* does co-occur with a preverbal n-word: (i) the sentence has a double negation reading, with stressed *non* (*Nessuno non viene* = 'Nobody is not coming'); (ii) the n-word is included in a complex NP (*%Nessuna delle piante non sembra malata / *Nessuna non sembra malata* 'None of the plants NEG looks sick'); (iii) the negation is 'reinforced'. Cases (ii) and (iii), which are noted in Benincà et al. 1988, Manzotti and Rigamonti 1988, are characterized by variable acceptability (noted %). Here we concentrate on case (iii) which belongs to an informal register. It is illustrated in (2) where small capitals stand for some recognizable prosodic marking. For this study, our informants are under 40 and from Northern Italy.

(2) *%NIENTE non ho fatto*
Nothing NEG I.have done ('I have not done anything')

In this paper, we show that the construction in (2) is used to express proposition denial, the core case of metalinguistic negation. Assuming with Kiparsky and Condoravdi 2006 that the existence of reinforced negation alongside the regular negation ('emphatic' vs 'simple' in their terms) stems from the need to formally express metalinguistic negation, we propose that

there exist two different ways to achieve this goal: in addition to including indefinites in the negative system, which has been the focus of much attention, there is the possibility of recycling negative material, under conditions which violate their properties in the descriptive use (for a more detailed presentation, see Godard and Marandin 2006). We analyze the construction in (2), integrating the syntax and the syntax-semantic interface of the reinforced negation with those of the regular negation in (1), and relating its formal properties to its pragmatics.

2 Properties of the Reinforced Negation Construction

2.1 Formal Properties

The 'reinforced negation' construction illustrated in (2) has the following properties:
– The sentence begins with a constituent containing an n-word, which can have different grammatical functions. It can be a subject (3a), a filler (2), (3b,c), or an adjunct (3d).

(3) a. *%NESSUNO non è venuto!* ('Nobody is here')
b. *%Con NESSUNO non ama parlare qui*
('With nobody does he like to talk here')
c. *%A nessuno degli STUDENTI non ha parlato*
('To none of the students has he talked')
d. *%Da nessuna PARTE, non ho visto Paolo*
('Nowhere have I seen Paolo')

– The initial constituent receives a special prosodic contour (noted by capital letters), anchored on the last word, which is not necessarily the n-word, as in (3c,d).

– The association between a specific contour and the initial constituent is not specific to the negative construction in (2); it is equally found in positive sentences (4).

(4) *A suo ex-RAGAZZO ha parlato* (Maria)
('she talked to her former boyfriend')

Finally, reinforced negation (5a,b) alternates with (3a,b), with the same pragmatic effect.

(5) a. *NESSUNO è venuto!*
b. *Con NESSUNO ama parlare qui.*

2.2 No common Information Structure behavior

It has been claimed that the initial constituent in (3)-(5) should be a Focus or a Contrastive Focus (e.g. Benincà et al. 1988). We show in this section that such a claim is wrong. We use question-answer pairs to define *Focus*, which is then the constituent that resolves the question, and we equate *Contrastive* with *Kontrastive*, viz. "it involves a set of alternatives" (Vallduví & Vilkuna 1998). Indeed, the initial constituent can be a Kontrastive Focus as in (6).

(6) A. *Suo fratello e suo cugino sono appena arrivati. Sai chi inviterà?*
('Her brother and her cousin have just arrived. Do you know who she will invite?')
B. i. *Suo* FRATELLO *non inviterà* ('She will not invite her brother')
ii. *Nessuno dei* DUE *(% non) inviterà*
('She will invite neither one nor the other')

It can be a non-Kontrastive focus as well, just as felicitously in utterances featuring a reinforced negation (7) as in positive utterances (8).

(7) A. *A chi non ha parlato Maria per tutta la serata?*
('To whom didn't Maria speak for the whole evening')
B. *%A nessuno degli* STUDENTI *non ha parlato*
('To none of the students did she speak')

(8) A. *A chi ha parlato Maria per tutta la serata?*
'To whom did Maria talk the whole evening?'
B. *A suo ex-*RAGAZZO *ha parlato* (Maria) (= (4))

Crucially, the initial constituent need not be a narrow focus. It also occurs in all focus utterances, although they are not felicitous in out-of-the-blue contexts, a restriction we take up in section 2.3 below. Again, the positive and the negative utterances behave alike as shown in (9).

(9) [A and B know each other. A tells B how the meeting went]
A. *Nanno Moretti ha fatto il suo intervento*
('Nanno Moretti gave his talk')
B. *E poi?* ('And then?')
A. i. GIOVANNI *ha applaudito fragorosamente.*
('Giovanni applauded frantically')
ii. *%*NESSUNO *non ha applaudito.* ('Nobody applauded')

And finally, the initial constituent can be a Kontrastive Topic, more precisely an S-Topic in Büring's 1997 sense, i. e. part of the Ground, as in (10).

(10) [A and B are colleagues in linguistics; they know that the exam had a syntactic and a semantic part]
A. *I tuoi studenti hanno riuscito l'esame?*
('Did your students do well at their exam')
B. i. *La* SINTASSI *hanno capito, la semantica, invece, non c'è verso!*
('They understood the syntax, but the semantics is a disaster')
ii. *%Nessuna questione di* SINTASSI *(quei cretini) non sono riusciti a risolvere! Le due questioni di semantica, invece, tutti le hanno risolte.*
('None of the syntax question did they manage to answer, the idiots, but the two semantic questions, they all solved them')

To conclude, the initial constituent does not have a fixed role in the Focus-Ground partition. It seems warranted to say that it has some sort of saliency, associated with its prosodic marking, but such a saliency should not be identified within the Ground-Focus partition. We come back to this in the next section.

2.3 Reinforced negation is associated with proposition denials

Informants report that, in question-answer pairs (6)-(10), the answers are not straightforward answers, rather they express some attitude of the speaker towards some state of affairs. For instance, in (4), it was expected that Maria would not speak to her former boyfriend, in (10) that the students do not do well in syntax or not better than in semantics. Concentrating on negative utterances with the properties described in section 2.1, we observe that they regularly convey the denial of a proposition (Geurts 1998). The proposition targeted by the denial should be activated in the current dialogue space (Dryer 1996). The target proposition may be either explicitly expressed in the preceding turn (11), or inferred as in (12), where B's assertion goes against the proposition that justifies A asking the question.[1]

(11) A. *Pietro ha letto tutti gli scritti di Einstein*
'Pietro has read all texts by Einstein'
B. *%Scherzi,* NESSUNO *(non) ne ha letto*
'You are joking, he has read none of them'

(12) A. *Allora sono arrivati i pacchi?*
'So, the packets have arrived?'
B. *%No,* NESSUNO *non ne è ancora partito!*
'No, none of them has even gone'

[1] According to our informants, for the speakers who do have the reinforced negation system, its use is obligatory when the target proposition is inferred : see (11) *vs* (12).

It is thus expected that such constructions may not occur in out-of-the-blue contexts, as already mentioned. This is illustrated in (13) with a positive utterance: answer (Bi) is not felicitous, while answers (Bii) and (Biii) without the initial salient constituent are appropriate (with or without subject inversion).

(13) [A cannot attend a certain talk; he calls the secretary to know how things are going]
A. *Come sta andando?* (How are things going?)
B. i. *# Molti* STUDENTI *sono venuti* (Many students have come)
ii. *Sono venuti molti studenti*
iii. *Molti studenti sono venuti*

Remember that the reinforced negation is never compulsory to achieve the propositional denial effect; in (11) or (12), a simple negation would do with the same pragmatics. How do we account then for the use of the reinforced negation?

We follow here Kiparsky and Condoravdi's 2006 interpretation of the 'Jespersen cycle'. Jespersen 1917 observes a tendency for languages to drag indefinites into the negation system (for instance as minimizers); they eventually become themselves negative, and may replace the initial negative item. These authors propose the following explanation. The cycle results from the working of two driving forces: (a) the need to formally express metalinguistic negation differently from descriptive negation; (b) the recurrent weakening of the metalinguistic negation form, precisely because of its expressive use. Accordingly, new forms of reinforced negation are created again and again in order to express metalinguistic negation, whose core case is proposition denial. Given that this is a process of linguistic change, it is expected that there be speaker variation, under the well-accepted view that linguistic change operates via the competition of different forms, used in different socio-linguistic conditions.

Adopting this analysis, we propose that, besides the well-known way of reinforcing negation by including indefinites in the negative system, there exists another way, which consists in the recycling of the regular negative material, the recycled items being associated with constraints that are different from those of the descriptive negation. Italian uses both forms of reinforced negation. The former relies on an indefinite and yields the *non … mica* negation (Cinque 1976, Tovena 2000, Schwenter 2006). The latter corresponds to the construction illustrated in (2): it recycles *non*, but without the ban against the co-occurrence between preverbal n-words and *non* that characterizes descriptive negation (1). The same type of reinforcement is observed in Brazilian Portuguese: it involves two negative adverbs, the former being in an ordinary pre-verbal position, and the latter in an unusual

one since it is VP final (*não V ... não*, see Schwenter 2005, 2006).

To sum up, we analyze the cooccurrence of a preverbal n-word with *non* as a form of reinforced negation. It occurs in a construction that is not restricted to negative sentences. Formally, this construction is characterized by an initial constituent compatible with several grammatical functions and which is set apart by a specific contour. Pragmatically, it conveys a reprise move expressing the speaker's non-commitment to some propositional content. Although we cannot dwell on the topic here, the initial XP represents the specific part of the content that triggers the speaker's rejection. In case the initial constituent hosts an n-word, the construction is used to express proposition denial. Some speakers choose to formally express this metalinguistic negation by using the reinforced negation "preverbal n-word + non".

3 An HPSG Grammar of Italian Negation

In this section, we propose a grammar for Italian negation, which integrates both the regular and the reinforced forms. We do not aim at discussing the numerous proposals concerning the status of n-words, negative concord (a single negation reading obtained when there are several negative items in the same domain), or the analysis of the asymmetry in (1). Essentially, we adopt the approach proposed in de Swart and Sag 2002 for French; we depart from them in extending the analysis to cases where the negation is not in an argument position, and in proposing that negative quantifiers are retrieved at phrasal nodes rather than lexical nodes. For different approaches in HPSG, see e.g. Borsley 2006, Branco and Crysmann 2001, Richter and Sailer 2006.

3.1 The analysis of *non*

We analyze *non* as an adverb adjoined to a light V, where 'light' means either a lexical V or a coordination of lexical Vs (see Abeillé and Godard 2000, 2003). The argument is as follows: while *non* may have scope over a coordination of lexical Vs, and license an n-word in a complement shared by two Vs (14), it does not have scope over a coordination of Vs with their complements, whether the V is finite, infinitive or gerund, as shown by the inacceptability of an n-word in the second conjunct in (15): [2]

(14) a. *Paolo non compra o legge nessun giornale*

[2] Note that *non* can be separated from the V by the adverb *sempre* (Kim 2000):

(i) *%Non sempre la facciamo, ma vale la pena di continuare a richierdercela.*
'We don't always do it, but it is worth continuing asking for it'

This is consistent with the present analysis if *sempre* is a light adverb adjoined to the lexical V (hence, forming a light phrase with the V head).

'Paolo does not buy or read any newspaper'

b. *Paolo non sembra comprare o leggere nessun giornale*
'Paolo does not seem to buy or read any newspaper'

(15) a. **Paolo non legge giornali e / o guarda nessuna notizia in televisione*
Put. Paolo does not reads newspapers and / or watches any news program on TV

b. **Paolo sembra non leggere giornali o guardare nessuna notizia in televisione*
Put. Paolo seems not to read newspapers or watch any news program on TV

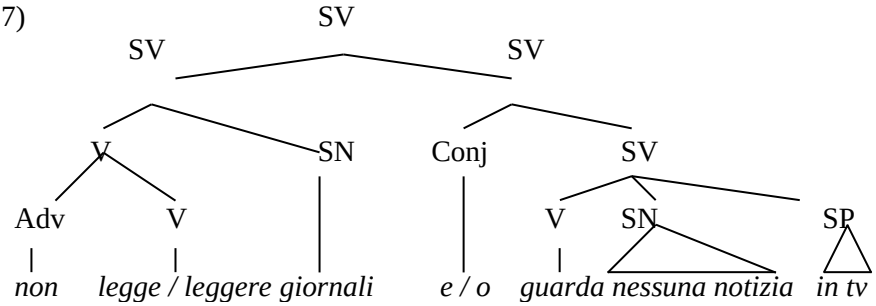
c. **Non comprando giornali e / o guardando nessun programma in televisione, Paolo vive fuori dal mondo*
Put. Not buying newspapers and / or watching any news program on TV, Paolo lives away from the world

Accordingly, we analyze unstressed *non* as in (16) (we leave aside stressed *non*), and the structure of (15a-b) as in (17). We explain below why *non* cannot have scope over the second conjunct. We assume that the negative adverb is an operator (a scopal element which does not have the semantic structure of a quantifier, but whose content is put in STORE).

(16) unstressed *non*

$$\begin{bmatrix} \text{PHON} & \textit{leaner} \\ \text{CAT}\,|\,\text{HEAD}\,|\,\textit{adverb} & \begin{bmatrix} \text{MOD} & \textit{verb} \begin{bmatrix} \text{WEIGHT} & \textit{light} \\ \text{CONT} & [2] \\ \text{STORE} & [3] \end{bmatrix} \end{bmatrix} \\ \text{CONT} & [1] \begin{bmatrix} \textit{neg-op-rel} \\ \text{SCOPE} & [2] \end{bmatrix} \\ \text{STORE} & \{[1]\} \cup [3] \end{bmatrix}$$

(17)

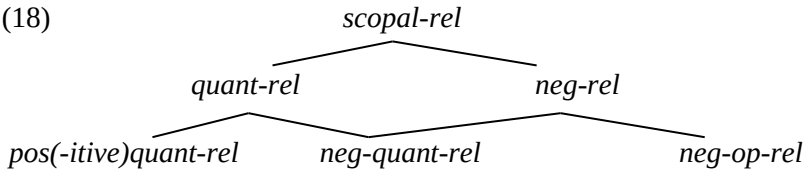


3.2 The analysis of n-words

A full discussion and justification of our analysis is outside the scope of the paper. We make the following choices:
(i) n-words are negative quantifiers in Italian (rather than indefinites or ambiguous between the two).
(ii) negative concord is obtained by the construction of a polyadic quantifier (de Swart and Sag 2002).
(iii) constraints on the retrieval of negative quantifiers account for the asymmetry in the system for descriptive negation (1).

Let us briefly justify point (i). Italian n-words have a very limited use nowadays as negative polarity items rather than negations (Przziepiórkowski 1999, Corblin and Tovena 2003). There is a consensus that they behave as NPIs when they are post-verbal in root interrogative sentences (i). There are also two other contexts where they do, but with variable acceptability: (ii) when they are post-verbal within the complement S of a negated V or an adversative predicate; and (iii) when they are preverbal in an embedded interrogative sentence. In particular, they cannot be NPIs in non negative contexts where n-words may be found in other Romance languages (such as expletive negation contexts, conditionals, comparatives). We assume that uses (i)-(iii) are the rest of an older use as polarity item, and do not belong to contemporary Italian syntax. In other words, we accept that there is a small amount of ambiguity for n-words, but unlike what is generally assumed in the ambiguity approaches to n-words, it does not take place within a homogeneous system. It comes from the co-existence of different subsystems, inherited diachronically (see Corblin 1994, Godard 2004 for French). We do not consider non negative n-words in this paper.
Accordingly, we have the partial hierarchy of scopal elements in (18):

(18)



3.3 Constructions and negation retrieval

Let us turn to the syntax-semantics interface. First, negations can occur as a non-head daughter in the following headed constructions: head-subject-cx, head-comps-cx, head-adjunct-cx, head-filler-cx.

(19) a. *head- subject -construction*
=>

$$\begin{bmatrix} head-subject-construction & \\ MOTHER & [SUBJ\ \langle\rangle] \\ HEAD\text{-}DTR & [SUBJ\ \langle [1] \rangle] \\ NON\text{-}HEAD\text{-}DTR & [SS\ [1]] \end{bmatrix}$$

b. *head- comps-construction*
=>

$$\begin{bmatrix} head-comps-construction & \\ MOTHER & [CONT\ [1]] \\ HD\text{-}DTR & \begin{bmatrix} CAT & \begin{bmatrix} WEIGHT\ light \\ COMPS\ nelist([A] \oplus list) \end{bmatrix} \\ CONT & [1] \end{bmatrix} \\ NON\text{-}HD\text{-}DTRS & [A] \end{bmatrix}$$

c. *head- filler-construction*
=>

$$\begin{bmatrix} head-filler-construction & \\ MOTHER & [SLASH\ [A]] \\ HEAD\text{-}DTR & \begin{bmatrix} HEAD & verb \\ SLASH & \{[1]\} \cup [A] \end{bmatrix} \\ NON\text{-}HD\text{-}DTR & [LOC\ [1]] \end{bmatrix}$$

d. *head-adjunct-construction*
=>

$$\begin{bmatrix} head-adjunct-construction & \\ HEAD\text{-}DTR & [SS\ [1]] \\ NON\text{-}HD\text{-}DTR & [MOD\ [1]] \end{bmatrix}$$

Second, our grammar includes a Cooper storage mechanism of the type proposed in Pollard and Sag 1994. We assume that scopal elements in a general way are retrieved either lexically (Ginzburg and Sag 2000) or constructionally (Pollard and Yoo 1998). Scopal elements are put in STORE, and inherited by the predicate when they originate in arguments (21). The phrasal construction shares the STORE according to the GHFP (20). Scopal adjuncts inherit the STORE of the head (22), although we assume here that scoping is done on the mother, the head-adjunct-cx.[3]

(20) Generalized Head Feature Principle (Ginzburg and Sag 2000)

$$\begin{bmatrix} headed-cx & \\ SYNSEM & /[1] \end{bmatrix} \Rightarrow \left[HD\text{–}DTR\ [SYNSEM\ /[1]]\right]$$

[3] Scopal adjuncts cover more cases than is sometimes assumed: are scopal all adjuncts that have scope over the head (or take as their argument the content of the head), independently of the resulting interpretation (thus a manner adverb is scopal as well as a frequency adverb). Are non scopal those that have been called 'free adjuncts', whose interpretation relies on an external relation, such as 'cause' (cf. *Having missed his train, Paul was sure to be late*). Free adjuncts do not have scope over the head, both the adjunct and the head being the argument of an external (and unexpressed) relation.

(21) Lexical STORE Amalgamation Constraint (Ginzburg and Sag 2000)

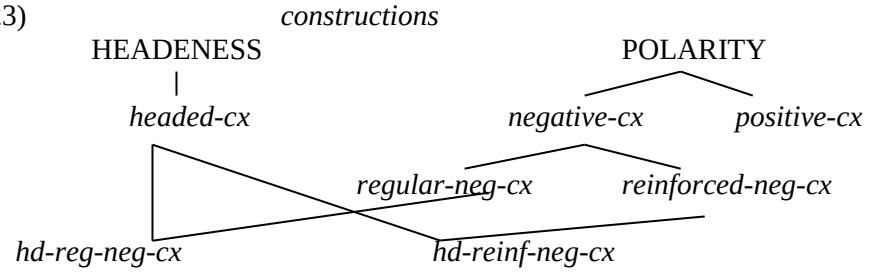
$$\textit{word} \Rightarrow / \begin{bmatrix} \text{SS|LOC} \begin{bmatrix} \text{CONT}\,[\text{QUANTS}\ \textbf{retrieve}\,([\text{A}0])] \\ \text{STORE}\,([\text{A}1] \cup \ldots \cup [\text{A}n]) - [\text{A}0] \end{bmatrix} \\ \text{ARG-ST} \langle [\text{STORE}\,[\text{A}1]], \ldots, \text{STORE}\,[\text{A}n] \rangle \end{bmatrix}$$

(22) *head-scopal-adjunct-construction* =>

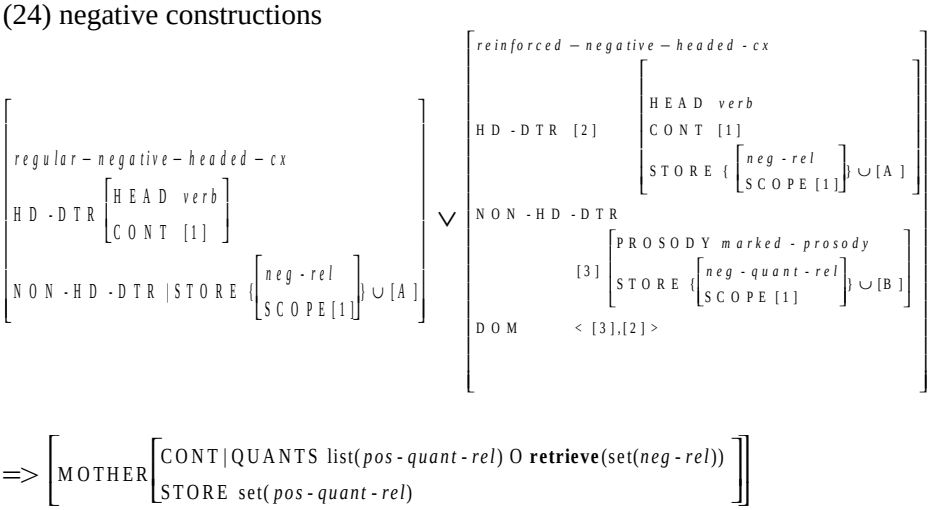
$$\begin{bmatrix} \text{MOTHER} & \begin{bmatrix} \text{CONT|QUANTS}\ \textbf{retrieve}\,([\text{D}]) \\ \text{STORE}\,[\text{C}] - [\text{D}] \end{bmatrix} \\ \text{HEAD-DTR} & \begin{bmatrix} \text{CONT}\ [1] \\ \text{STORE}\,[\text{A}] \end{bmatrix} \\ \text{NON-HEAD-DTR} & \begin{bmatrix} \text{CONT|SCOPE}\ [1] \\ \text{STORE}\,[\text{C}]\{[\text{A}] \cup [\text{B}]\} \end{bmatrix} \end{bmatrix}$$

With this in mind, we can analyze Italian negations. We propose that Italian negations are always retrieved at the phrasal construction level (unlike what de Swart and Sag 2002 propose for French). If the verb could retrieve negations, we would not be able to understand the contrast between (1b) and (1c). If *non* and the V formed a word, we could say that *non*-verbs retrieve negations from complements while non *non*-verbs retrieve negations from subjects. But they do not form a word since *non* may have scope over a coordination of Vs (14a). If *non* adjoins to a verb which retrieves a negation only if it originates in the complement, how is its adjunction made obligatory ? It would also be necessary to make a distinction depending on whether the complement is a gap or canonical, since a negative filler does not co-occur with *non* (in the regular negative system).
Instead, we propose that Italian negations are retrieved by the head-subject-cx, the head-adjunct-cx, the head-filler-cx, but not the head-comps-cx. This follows if the content of the head-complements-cx is identified with that of the head daughter (19). Moreover, we distinguish constructions depending on their polarity, and have two different constructions, the former for the regular negative system, the latter for the reinforced negative system. The relevant hierarchy is in (23), and the polarity constructions are described in (24)-(25):

(23)



(24) negative constructions



(25) *positive-construction* => [MOTHER | CONT | QUANTS list (*pos-quant-rel*)]

In both negative constructions, the head daughter is the VP or S, and the constraint on the mother is the same: no negation is left in STORE. As in de Swart and Sag 2002, the operator **retrieve** applies to a set, creating either a list of quantifiers or a polyadic quantifier (responsible for negative concord) when there are several negations. We leave aside here the difference between the two interpretations (however a double negation reading is difficult in Italian, see Corblin and Tovena 2003). In the regular construction, the negation comes from the non-head-daughter (the adjunct, the subject or the filler), may be either the negative adverb *non* or an n-word, and is constrained to have scope over the content of the head. In the reinforced construction, both daughters have a negation in their STORE, which, for the non head, is constrained to be an n-word. In the first construction, a negation in a non-head daughter must be retrieved at the level of the mother, as soon as it has scope over the head daughter; hence, the adjunct *non* must be retrieved as soon as it adjoins to the verb. This explains why *non* may not license an n-word in the second conjunct in (15): the negation is retrieved at the head-adjunct-cx node, and is part of the content of the first conjunct only. On the contrary, such retrieval is postponed in the second case until the non head daughter also has a negation in its store. Some speakers only have the regular negative headed construction, while others have both, and can choose to apply either one.

Finally, we assume that there are unary rules that turn the soa content into the message content of a clause (Ginzburg and Sag 2000). Regarding negation, we constrain the clause as in (26). Nothing, as yet, forces *non* to adjoin to the verb if there is a complement containing an n-word. In fact, as in French, in

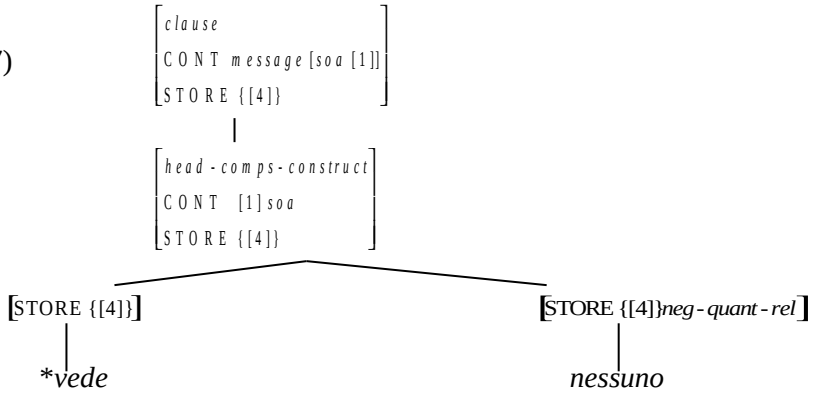
some cases the complement n-word may be retrieved by a higher verb (*Paolo non vuole vedere nessuno*, 'Paolo does not want to see anybody'). Leaving such cases aside (which require a more sophisticated constraint, see Godard 2004 for French), we adopt a simplified constraint. Following (26), a sentence with a complement n-word is unacceptable if *non* does not adjoin to the verb, since it cannot be retrieved by a phrasal construction, violating the constraint on clauses.

(26) Clause and negation retrieval (simplified)

$$\begin{bmatrix} clause \\ CONT\ message \end{bmatrix} \Rightarrow [\text{STORE set } (pos\text{-}quant\text{-}rel)]$$

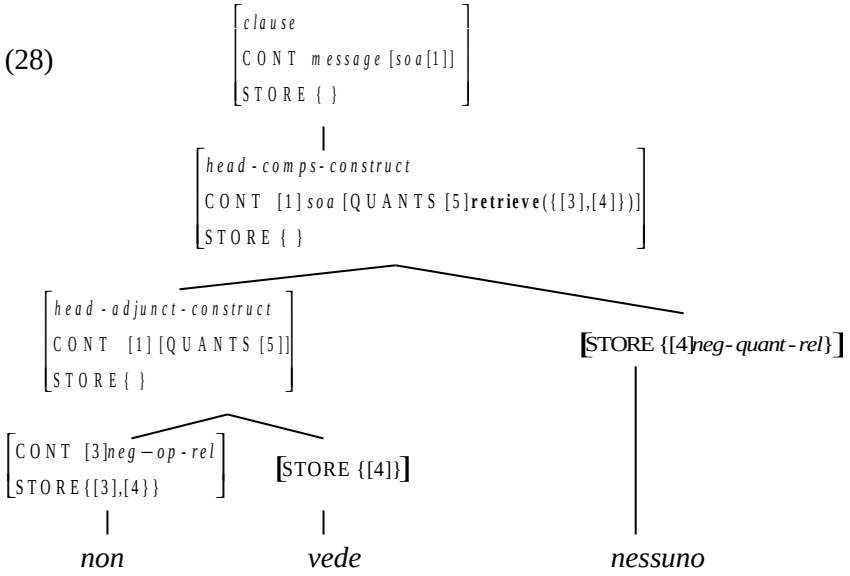
We now illustrate the proposal with a few examples. Starting with an object n-word in the regular negation system, we contrast *non vede nessuno* with **vede nessuno*. The phrasal construct in (27) cannot retrieve the negation, since it does not conform to the constraints for the negative constructions (24). Hence, the clause violates constraint (26).

(27)



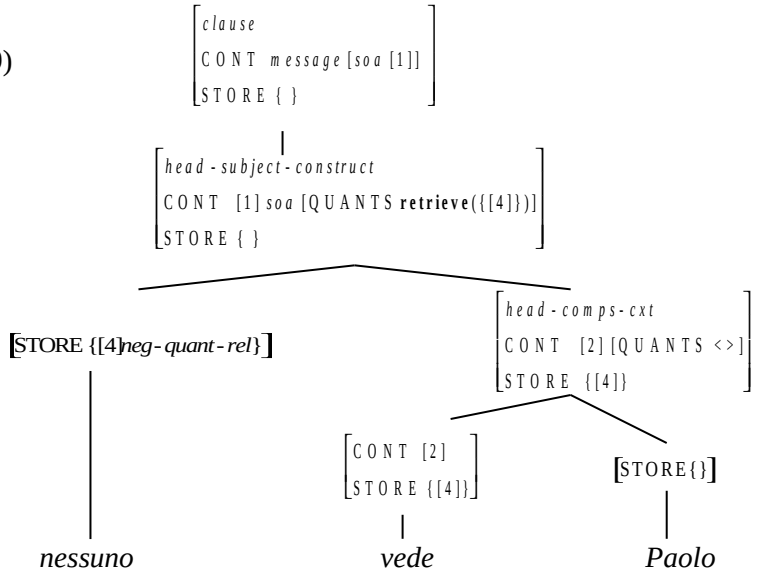
In (28) the head-adjunct-construct does retrieve the negations coming from the adjunct daughter, that is, both the neg-op-rel and the neg-quant-rel, which the head daughter (the verb) inherits from its complement. Hence, constraint (26) is observed, and the sentence is acceptable.

(28)



Remaining in the regular negation system, we turn to the constrast with a subject n-word, *nessuno vede Paolo* and **nessuno non vede Paolo*. The constraints account directly for the first sentence. In (29), the head-subject-cxt retrieves the negation, and the clause has no negation in its store.

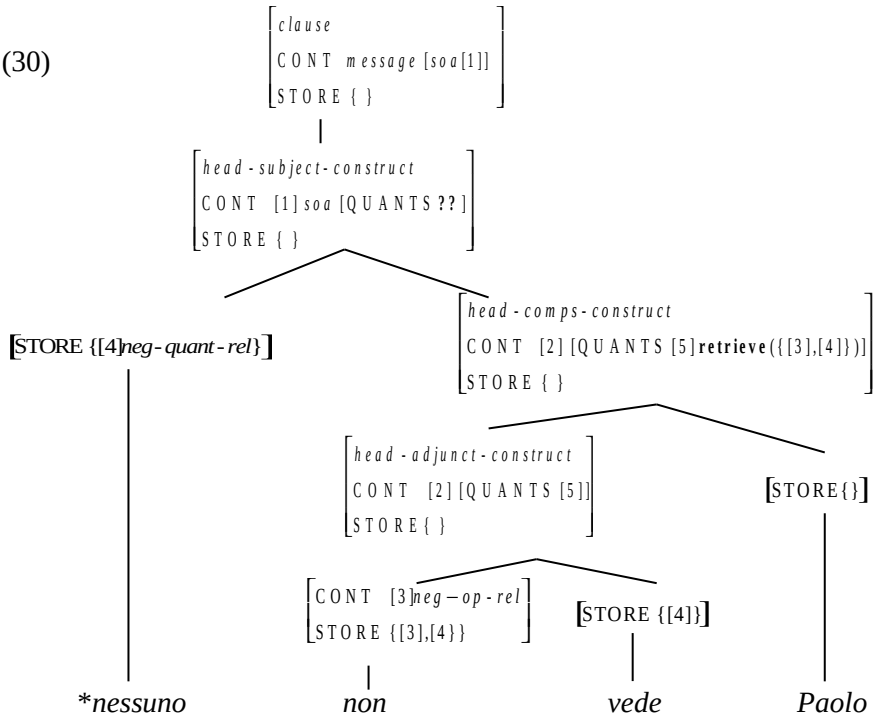
(29)



Something more has to be said for the second sentence: why is **nessuno non vede Paolo* not acceptable, with the negations retrieved by the head-adjunct-cxt? The problem is that applying (24) is mandatory. Thus, the negative

relation associated with *nessuno* has to be interpreted twice, once at the head-adjunct-cxt node, once at the head-subject-cxt node. This results in an uninterpretable structure (30).[4]

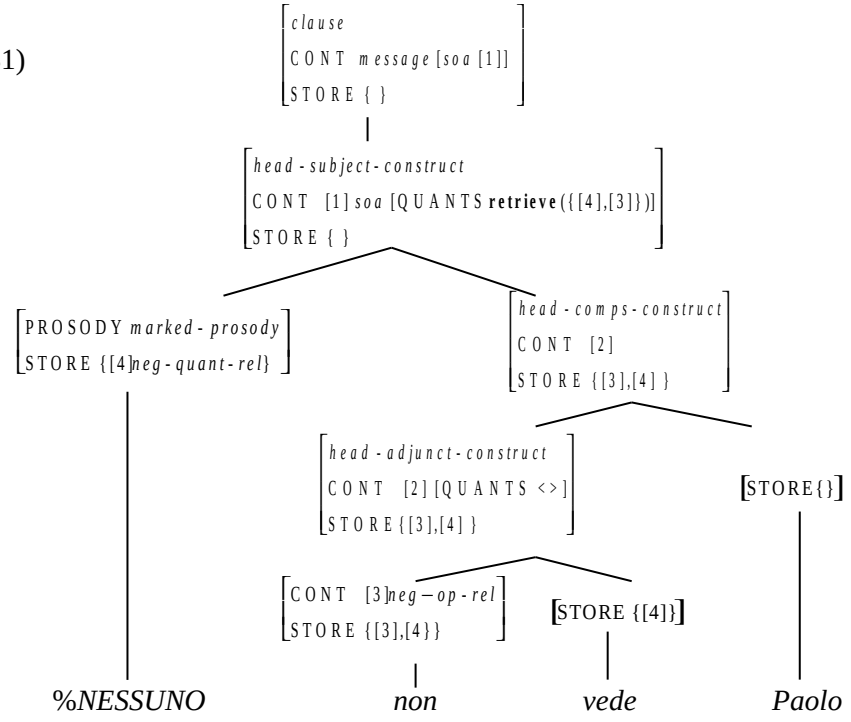
(30)



Finally, we illustrate the reinforced negation system with *%NESSUNO non vede Paolo* in (31). The subject is correctly analyzed as the non-head-daughter in that construction: it has the right prosody, and a negation in store. Accordingly, although the negations are in the STORE of the adjunct *non*, exactly as in (30), they are not retrieved at the head-adjunct-cxt node, because this adjunct does not qualify as the non-head daughter in the reinforced negation construction. Rather, the negations are passed up to the head-comps-cxt, and the head-subject-cxt. At that node, [4] is passed up from the subject daughter to the phrasal node, as in the previous example; however, this negative relation has not yet been interpreted, and the two instances of [4] are recognized as just one element of the set. Thus, at that node, the set which has to be interpreted is just : {[3],[4]}, and the structure is interpretable and licit.

[4] This account leaves open the question of why it is possible to interpret an indefinite lower than its dominating node, contrary to universals or negations (as in e.g. *A unicorn seemed to be wandering in the garden*).

(31)



4. A description of the reinforced negation construction

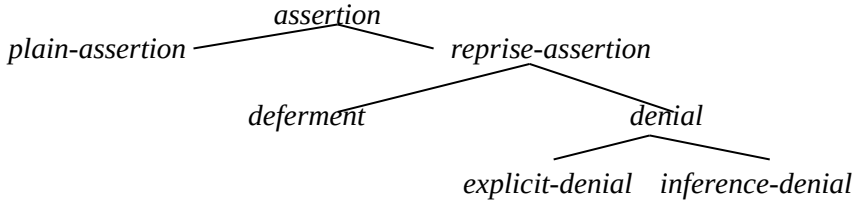
4.1. Types of dialogue moves

In order to describe the pragmatic import associated with the reinforced negation construction (2), we explain our general approach to speech acts, assertion in particular, of which proposition denial is a variety. We adopt the view that speech acts can be described as moves in dialogue, which effectuate a context change. To represent this analysis in an HPSG grammar, we use Ginzburg's framework based on the notion of dialogue gameboard, and include its representation as the context of a root clause (Bonami and Godard 2006).

We admit four basic illocutionary forces or dialogue moves: assertion, interrogation, directive, and exclamation. Each of them subsumes several subtypes that are identified by formal features and that give rise to a rich gamut of speech acts in context. Focussing on assertion, we propose the partial taxonomy of assertive moves in (32); it introduces a subtype that we call *reprise-assertion*. Following Ginzburg (to app.), we analyze plain assertions as committing the speaker to a propositional content and, simultaneously, calling on the addressee to acknowledge that content. By uttering a reprise assertion, the speaker makes a statement whose content is

reprised from the ongoing context and which conveys his / her distance from this content. This is the type of move associated with the sentences in (2)-(5), among which the negative ones express denials.

(32) Types of assertive moves



Deferments convey a move by which the speaker suspends his / her commitment toward the proposition (either out of surprise or anger, etc.). Deferments are illustrated in (8), (9Ai) (10Bi) above); B's utterances in (33) is another instance of deferment with a overtone of surprise ('I can't believe it') or outrage ('she's done that!') depending on the situation. Denials convey a move by which the speaker refuses the proposition (s)he takes up from the context.

(33) A. *Maria ha bevuto vodka* (Maria has drunk vodka)
B. *VODKA ha bevuto* (vodka she has drunk)

In Ginzburg's framework the key tool to analyze the contextual import of utterances is the Dialogue Participant's, or Speaker's, mental state which is conceived of as a board to record the moves in a game. It is partitioned into a public component (the PUB(LIC)), and a non-publicized one (the PRI(VATE)). The PUB records the commitments which the speaker endorses by uttering his / her utterance, while the private component stores his / her beliefs, desires and intentions. We adopt the architecture in (34) which is slightly different from Ginzburg's proposal (we follow Bonami and Godard 2006 for PUB and Marandin 2005 for PRI).

(34) The two components of a speaker's Dialogue Board

$$\begin{bmatrix} \text{PUB} \begin{bmatrix} \text{SP-CMT } set(p) \\ \text{AD-CMT } set(p) \\ \text{QUD } list(questions) \begin{bmatrix} \text{QUD-MAX} \\ \text{QUD-Non-MAX} \end{bmatrix} \\ \text{LATEST-MOVE} \end{bmatrix} \end{bmatrix} \quad \begin{bmatrix} \text{PRI} \begin{bmatrix} \text{GOAL } outcome \\ \text{GROUND} \begin{bmatrix} \text{TOPic } set(p) \\ \text{Non-TOPic } set(p) \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

By uttering a plain assertion, the speaker updates his / her commitment (SP-CMT) by adding the proposition (s)he asserts ('p') to the set of propositions (s)he might have already endorsed; simultaneously, (s)he updates QUD with a

polar question ('p?') constructed from the proposition expressed in his / her utterance, which enables the addressee to acknowledge or not his / her statement (see (35a)). Unlike assertions, deferments are contextually restricted: their content is reprised from the latest move (L-MOVE). By uttering a deferment, the speaker does not update his / her commitment, rather (s)he updates his / her representation of the addressee's commitments (AD-CMT). What makes plain assertions and deferments alike is that, in both moves, the speaker updates QUD with a polar question, which amounts to calling on the addressee to take a stand on the content of his / her utterance (35b).
Explicit denials work like deferments except for the polarity of the propositional content and the polar question incrementing QUD (35c). Inference-denials works like explicit denials except that the contextual restriction is not located in L-MOVE, but rather in the private part of the dialogue board. At a given turn in a dialogue, not all of the speaker's knowledge or belief is activated, only the elements that are 'lit up' by the ongoing issues. We capture this by partitioning the speaker's knowledge / belief (GROUND) into two components: the topical part (TOP) and the rest. Each new question added to QUD selects a set of propositions that are about the issue (those that belong to TOP). The targets of inference denials belong to such a set. By uttering an inference denial, the speaker presents the content of his / her utterance as possibly relevant for the issue raised by the addressee's move (frequently, with the overtone that it is relevant for the addressee) and rejects both its content and its relevance (35d).

(35) Dialogue moves as changes in the dialogue board

a. ***plain-assertion*** =>

$$\left[\begin{array}{l} \mathrm{CNXT}\left[\begin{array}{l} \mathrm{SP\text{-}CMT}\ \{p\}\cup[S(i)] \\ \mathrm{AD\text{-}CMT}\ [S(j)] \\ \mathrm{QUD}\ \ \langle p?\rangle \oplus [Q] \\ \mathrm{L\text{-}MOVE}\left[\begin{array}{l} \mathrm{SP\text{-}CMT}\ [S(j)] \\ \mathrm{AD\text{-}CMT}\ [S(i)] \\ \mathrm{QUD}\ \ [Q] \end{array}\right] \end{array}\right] \\ \left[\begin{array}{l} participants \\ \mathrm{SP}\ \ i \\ \mathrm{AD}\ \ j \end{array}\right] \end{array}\right]$$

$$\Big|$$

$$[\mathrm{CONT}\ \ p]$$

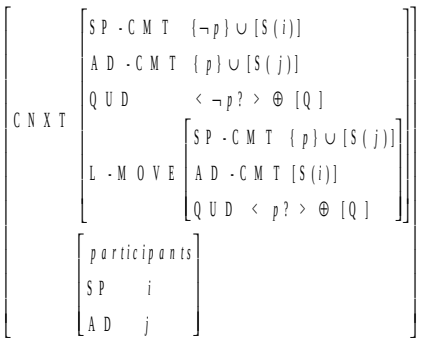
b. ***deferment*** =>

$$\left[\begin{array}{l} \mathrm{CNXT}\left[\begin{array}{l} \mathrm{SP\text{-}CMT}\ [S(i)] \\ \mathrm{AD\text{-}CMT}\ \{p\}\cup[S(j)] \\ \mathrm{QUD}\ \ \langle p?\rangle \oplus [Q] \\ \mathrm{L\text{-}MOVE}\left[\begin{array}{l} \mathrm{SP\text{-}CMT}\ \{p\}\cup[S(j)] \\ \mathrm{AD\text{-}CMT}\ [S(i)] \\ \mathrm{QUD}\ \langle p?\rangle \oplus [Q] \end{array}\right] \end{array}\right] \\ \left[\begin{array}{l} participants \\ \mathrm{SP}\ \ i \\ \mathrm{AD}\ \ j \end{array}\right] \end{array}\right]$$

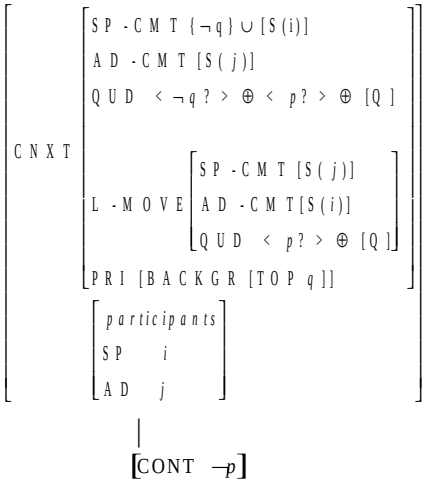
$$\Big|$$

$$[\mathrm{CONT}\ \ p]$$

c. ***explicit-denial*** =>



d. ***inference-denial***=>



4.2. Relating the formal and the pragmatic properties

The last step in the description of the reinforced negation construction in Italian consists in relating the formal (24) and the pragmatic properties (35c,d). This can be done using the implication in (36), which relies on the geometry of clauses used above in (27)-(31). The clause node dominates a construction whose content is of type soa, which it turns into a message. In our case, since the use associated with the construction is denial, the clause must be a root clause, assuming, as is generally accepted, that only root clauses can have a speech act import. As mentioned above, the pragmatics of the root clause is represented as its context.

(36) $\left[\text{HD-DTR } \textit{headed-reinforced-negation-cx}\right] \Rightarrow \begin{bmatrix} \textit{root-clause} \\ \text{CNXT } \textit{denial} \end{bmatrix}$

Such an analysis predicts that sentences (2)-(5) may only occur as root clauses. This is borne out as shown by the unacceptabilility of the construction in complement sentences (37).

(37) A. *Sai chi Maria inviterà per il suo compleanno?*
'Tu sais qui Maria va inviter pour son anniversaire ?'
B. **Dovresti sapere che* NESSUNO *(non) inviterà*
tu devrais savoir que personne NEG elle.invitera

To conclude, we claim that sentence (2) in Italian illustrates a pattern of reinforced negation which relies on the recycling of negative expressions as well as an independently existing construction with the required pragmatics.

Moreover, we show that an information structure approach to such a construction is empirically inappropriate, and substitute a speech act or illocutionary force approach, which we model as a dialogue move, and which captures the pragmatic properties of metalinguistic as opposed to descriptive negation.

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