

Minimizers and quantifiers: a window on the development of negative markers

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Abstract: In this work we examine the diachronic development of two types of negative markers showing that their semantic evolution is similar, as they have both undergone a stage when they become monotone decreasing quantifiers. However, their position is different: the first type, called minimizers, are part of a complex DP, while the second is a bare quantifier. Their original syntactic position determines the final position where they are merged when they are reanalyzed as standard negative markers: the bare quantifier is located in a position dedicated to bare QPs, while minimizers move to a higher position in the low IP area.

1. Introduction

In her seminal work on negation in Italo-Romance, Zanuttini (1997) has shown that negative morphemes in Italo-Romance varieties can be subdivided into four main classes according to the position they occupy in the clause structure. These positions, labelled as Neg1, Neg2, etc. are represented in (1)

(1) [NegP 1 [TP 1 [NegP 2 [TP 2 [NegP 3 [Asp Perfective [NegP 4]...]

Neg1 is the position of preverbal negations like standard Italian *non*; Neg2 and Neg3 are postverbal negations which are differentiated by the fact that the former (for instance Piedmontese *pa*) generally precedes Tense Anterior adverbs like ‘already’, while the latter (for instance Piedmontese *nen*) appears inside the field of aspectual adverbs (Cinque 1999).

- (2) a. A l'è pa gia andait a ca'. (Piedmontese, Zanuttini 1997, 70)
SCL SCL is NEG already gone to home
'He has not already gone home.'
- b. *?A l'è nen gia andait a ca'.
SCL SCL is NEG already gone to home
'He has not already gone home.'

Neg4 are sentence-final negations like Milanese *no*. Neg2 and Neg3 elements share an interesting property: both classes are made of elements derived from quantifiers originally merged in object position. These elements have been grammaticalized and in many cases are not identical to the corresponding quantifier in synchrony. In other cases the quantifier has totally disappeared in the modern variety (it is the case of standard Italian *mica*).

In this paper we observe that, even if both Neg2 and Neg3 items were in origin object quantifiers, the two classes derive from two distinct types of quantifiers. In fact, Neg2 negations derive from grammaticalized minimizers, which in origin appeared in complex DP structures, followed by an obligatory PP complement, while Neg3 negations derive from the bare negative inanimate quantifier corresponding to English ‘nothing’. Thus, the different etymological and syntactic origin of the two quantifiers is somehow related to a different syntactic position in synchrony when they are reanalyzed as negative markers.

As we will show further more in detail, a relevant factor for the syntactic properties of postverbal negations is whether they are the standard negative morpheme or have a more complex interpretation generally referred to as “emphatic negation” (here, we refer to it as non standard negation because we do not think that emphasis play any role in the distribution of these elements). The status of standard negation can be considered the final stage of the grammaticalization process. Analogue elements have reached different stages of grammaticalization in different varieties. Thus, a comparative analysis of the same etymological type of negative marker in different dialects and of different types in the same variety can shed light on the diachronic development of these elements. In this work we exploit exactly the parallel between geographic and diachronic variation to investigate the development of the various negative markers by means of living dialects.

Standard negations are compatible with any type of sentence or predicate¹, while non-standard negations need specific contexts. These appropriate contexts vary for different negations, but we provide evidence for the fact that they all undergo a stage in which they require a scale. We will argue that scalarity is the property that triggers the grammaticalization of quantifiers into negative markers. In other words, both types of elements we discuss here become scalar negative markers before becoming polar negation.

The paper has the following structure: in section 2 we examine the distribution of minimizer negation tracing its diachronic path from Old Italian to Modern Italian; we will show that, before becoming a non standard negative marker, this element was a quantifier requiring a scale. The same is true of the second type of negative marker, *gnente*, which is so to speak “caught in the act” of evolving into a negative marker from a scalar quantifier. The analysis of elements like *gnente* ‘nothing’ in a living dialect will provide empirical evidence in favour of our main claim, namely that scalarity is relevant in the grammaticalization process. This is what we discuss in section 4.

2. Minimizer negation

Many Italo-romance varieties display negative markers which derive from nouns expressing a small quantity, which were originally lexically related to their

¹ We will not deal with constituent negations in this paper.

complement PP. We adopt here the term “Minimizer Negation” to indicate these elements (from now on simply m-negation). A partial list of m-negations, with their original referential meaning, is given in (3):

- (3) ‘step’: Piedmontese/Valdotain *pa*;
‘crumble’: Emilian *brisa*; Milanese *miga/minga*; Veneto *mina/mia*; Italian *mica*;
‘bite’: Romansh *bucca*;
‘point’: Florentine *punto*;
‘thread’: Salentino *filu*;
‘flower’: Old Florentine *fiore*;
‘drop’: Old Venetian *gozo*.

Some of these elements have become the marker of standard negation (like *pa* in Piedmontese, or *bucca* in Romansh), while others have specialized as non-standard negative markers.² There are two main groups of non-standard negations: on the one hand, adverbs which reinforce preverbal negation and can be considered as equivalent to ‘at all’ in English - on the other hand, negative morphemes that are used to express the fact that an explicit or implicit assumption made by the interlocutor is wrong³. The difference between these two types is shown in (4).

- (4) a. Mario un ha punto mangiato. (Florentine)
M. NEG has NEG eaten
‘M. has not eaten at all.’
b. Mario un ha mica mangiato. (Florentine)
M. NEG has NEG eaten
‘M. has not eaten (as you have said/think).’

M-negations behave like a natural class of elements, since they display common syntactic properties. Usually they appear higher than adverbs encoding Aspect and Tense Anterior. This position is occupied by both standard and non standard negative markers. Zanuttini (1997) proposes that this position is the specifier of a functional projection which she labels Neg2. Some examples which show that m-negations precede adverbs corresponding to ‘already’ are given in (5), while the relevant part of the clause structure of Zanuttini’s analysis (based on Cinque’s (1999) hierarchy of adverbials) is provided in (6):

- (5) a. A l’ha pa gia ciamà. (Piedmontese, from Zanuttini 1997)
SCL SCL has NEG already called
‘He has not already called.’
b. I n’an briza beli ciamà. (Emilian, from Colombini 2007, § 5.6.1)
SCL NEG have NEG already called
‘They have not already called.’

² As mentioned in the introduction, with the term non-standard negative markers we indicate negative elements which have a more complex interpretation with respect to the unmarked sentential negation.

³ Italian *mica* is one of these elements, and it has been called “presuppositional negation” by Cinque (1976). In more recent work Penello-Pescarini (2008) use an updated terminology and analyze the distribution of *mica* in terms of implicatures.

- c. Non hanno mica già chiamato. (Italian, from Cinque 1999)
 NEG have NEG already called
 ‘They have not already called.’
- d. Elts an buca magliau trasora. (Romansh, from Manzini-Savoia 2005)
 SCL have NEG eaten already
 ‘They have not already eaten.’
- (6) [...[FP *neg* [T Anterior *already* [Asp Terminative *anymore* [Asp Perfective *always* [Asp Completive *tutto*]]]]]]]

Contrary to q-negations that we will analyze in the following section, m-negations can cooccur with negative quantifiers, even if adjacent:

- (7) a. A'm dis pa gnente. (Piedmontese, from Zanuttini 1997)
 SCL me tells NEG nothing
 ‘She does not tell me anything.’
- b. A veddu pa gnun. (Piedmontese, from Zanuttini 1997)
 SCL see neg nobody
 ‘I do not see anyone.’
- c. Al n'i briza arivà endsun. (Emilian, from Colombini 2007, § 2.3)
 SCL NEG is NEG come nobody
 ‘Nobody has come.’
- d. A n vegn mia ninsün. (Mantuan, from Manzini-Savoia 2005)
 SCL NEG comes NEG nobody
 ‘Nobody comes.’

Usually m-negations appear in postverbal position, both in varieties which have (8a-b) and varieties which lack (8c-d) a preverbal negative marker:

- (8) a. Non sente mica. (Italian)
 NEG hears NEG
 ‘He cannot hear.’
- b. No ssienti filu? (Salentino, from Rohlfs 1969)
 NEG hear NEG
 ‘Don't you hear?’
- c. Lo film l'ëra pa dzen. (Valdotain, from Zanuttini 1997)
 the movie SCL was NEG beautiful
 ‘The movie wasn't good.’
- d. El l'ha minga scrivuu. (Milanese, from Zanuttini 1997)
 He SCL has NEG written
 ‘He has not written.’

However, in some varieties where the marker of standard negation is preverbal, m-negations can optionally appear in preverbal position. In this case, m-negation is the only negative element in the sentence (leaving aside additional n-words, as in (9c)), although it most probably does not occupy the same position of the preverbal negative marker, which is a head:

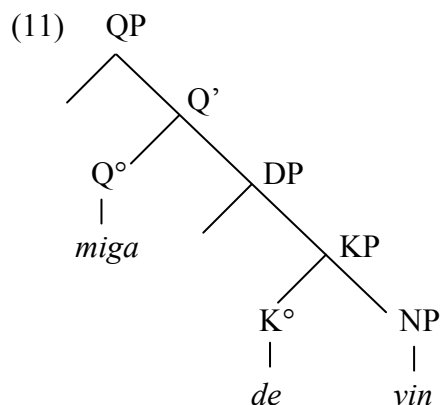
- (9) a. Mica sente quello che dici. (Italian)
 NEG hears that that say
 ‘He does not hear what you are saying.’
 b. Filu sapimu la libbirtà. (Salentino, from Rohlf’s 1969)
 NEG know the freedom
 ‘We don’t know what freedom is.’
 c. Mica abbiamo visto nessuno. (Italian)
 NEG have seen nobody
 ‘We have not seen anybody.’

2.1 Development of M-Negations

All m-negations we deal with in this paper derive from nominal minimizers, that is nouns denoting “a negligible number, amount, or part of something” (Kiparsky-Condoravdi 2006, 2). In origin they appeared in semantically restricted predicates (as, for example, ‘not eat a crumble of bread’, ‘not drink a drop of water’, not move an inch (a step), etc.). In these contexts they were indefinite DPs with a prepositional complement containing another DP (the noun referring to the minimally quantified thing). These expressions can be described as emphatic negations, where emphasis is obtained negating the smallest grade of a scale. However, the minimizer retained its referential value, as shown by the lexical restriction imposed on it by the verb. In the following step of the grammaticalization, these elements have become quantifiers. Adopting Roberts-Roussou’s (2003) proposal that grammaticalization is leftward movement in the syntactic structure, we assume that in a first stage of the process, the minimizer N moves to a higher position in the DP structure, which is NumP (in a way parallel to DPs that have become n-words in French):

- (10) miga de vin ‘a little bit of wine’ (Old Milanese)
 [DP [D Ø] [NumP [Num *miga*] [NP *miga* [PP *de vin*]]]]
 (see Roberts-Roussou 2003, 153)

Then the whole structure is reinterpreted as a unique DP, with the noun inside the PP as the head of the NP, the preposition as a partitive case marker (that is a K°) and the minimizer as a classifier-like quantifier governing the DP which provides its restriction. Structural changes where XPs are reinterpreted as heads are common in diachrony (Van Gelderen 2004). The second stage of the development is represented in (11):



At this point the minimizer has become a functional element and loses the typical properties of lexical nouns: its phi-features, the possibility of being modified, the possibility of taking PP complements and, more in general, any referential content. Italian *mica*, which is a non-standard m-negation and derives from the Latin word for ‘crumble’ (*micam*) has lost all these properties. It cannot be modified (12a), cannot have a PP complement (12b) and cannot be used to express its original referential meaning (12c):

- (12) a. Non leggono (*la minima) mica i libri gialli.
NEG read the minimal NEG the books yellow
‘They do not read police novels.’
b. Non vedo mica (*di) Mario questa sera.
NEG see NEG of Mario this evening
‘I will not meet Mario this evening.’
c. *...una mica di pane.
a MICA of bread

In some dialects traces of the original structure can still be found. For instance, in the Piedmontese variety of Quarna Sotto, when non-standard m-negation *mia* is used, the object can appear in the partitive case, even if it expresses a singular non-quantifiable entity:

- (13) Nə caman mia d əu te frial. (Quarna Sotto, from Manzini-Savoia 2005)
NEG-SCL call NEG of the your brother
‘They do not call your brother.’

After having become a functional element, the minimizer can undergo a further change: it is moved outside the object position where it was merged in origin. As we have seen, m-negations occupy a precise position in the adverbial hierarchy, which is higher than Tense Anterior. At this point, the element originally quantifying over a DP has become a sentential element. Both standard and non-standard m-negations appear in this position, which, therefore, seems to be irrelevant in order to distinguish between different semantic types of negation. It is worth pointing out that - some m-negations, which, for independent reasons, have not completed the process outlined in this section, still seem to occupy a different position. For instance, the negative adverb *punto* in Florentine, which is a m-negation, follows the adverb corresponding to ‘never’:

- (14) a. *Un m’è punto mai piaciuto. (Florentine)
NEG to-me is PUNTO never liked
b. Un m’è mai punto piaciuto.
‘I never liked it at all.’

On the other hand, however, *punto* has developed a special agreeing morphology and is still used to express a minimal quantity (it can be used as a polarity quantifier, also in positive contexts, where it corresponds to ‘any’):

- (15) a. Un ho punte sorelle.
NEG have PUNTO.F.PL sisters
‘I have no sisters.’

- b. Hai punte sorelle?
have PUNTO.F.PL sisters
'Do you have any sister?'

Thus, it comes as no surprise that m-negations can reach diachronically Neg2 only if they lose all their original lexical properties. We have seen that they do so in two steps: they first become functional elements quantifying over a DP and later they are reanalyzed as sentential elements.

2.2 Vulgar Minimizers as M-Negations

In this section we present some data regarding a peculiar class of elements, which share many properties with m-negations, the so-called vulgar minimizers (Postal 2003). The analysis of these special minimizers in Italo-Romance can shed light on the development of m-negations.

Vulgar minimizers differ from standard minimizers in the fact that the latter "denote minimal elements on some scale", while the former "are not narrowly restricted to particular dimensions, but can express minimality along many dimensions" (Postal 2003). Usually vulgar minimizers derive from tabooed nouns, all denoting inanimates. The more common vulgar minimizers in standard Italian are *tubo* 'pipe', *cavolo* 'cabbage', *cazzo* 'dick', etc., with many regional or dialectal variants. They are similar to nouns that have become m-negations because they are scalar: they express that the action or the property denoted by the predicate does not reach a minimal degree of acceptability:

- (16) a. Non ho capito un tubo.
NEG have understood a pipe
'I have understood nothing.'
b. Sono andati via senza aver fatto un cavolo.
are gone away without have done a cabbage
'They left having done nothing.'
c. *Non abbiamo incontrato un tubo.
NEG have met a pipe
'We met nobody.'

(16c) shows that these elements can be used appropriately only in the object position of predicates not selecting animate objects. If an animate is required, it is possible to use some nouns (with strict semantic restrictions), but animate nouns lack many of the properties of vulgar minimizers. Some of such properties which are relevant for our analysis are: vulgar minimizers can be modified, for example by adjectives, and can have PP complements (in this case, they have quantificational function over the noun inside the PP):

- (17) a. Non ho capito un emerito tubo.
NEG have understood a emeritous pipe
'I have understood nothing.'
b. Non capiscono un tubo di economia.
NEG understand a pipe of economics
'They understand nothing of economics.'

Furthermore, in varieties of Central Italy, it is possible to use vulgar minimizers as the unique negative element of a clause:

- (18) a. So un cavolo chi viene stasera.
 know a cabbage who comes this evening
 ‘I do not know who will come this evening.’
 b. Sono indipendenti un cavolo.
 are independent a cabbage
 ‘They are not independent.’

Thus, vulgar minimizers in Italo-Romance are a very peculiar class of elements: on the one hand, they are in some sense more similar to nouns, since they can be modified and can take PP complements, what is not possible anymore for m-negations; on the other hand, they can be the unique negative element in a sentence, that is a purely functional item. As we have seen in the previous paragraph, m-negations can be the unique negation only in some varieties and only when they appear in preverbal position. Vulgar minimizers, on the contrary, as the examples in (16) show, remain in postverbal position. We leave a deeper analysis of these elements to future research, but it is clear that they must be considered together with m-negations and in some sense they appear to be in one of the precedent stages of the historical development of minimizers into m-negations⁴.

2.3 On the scalar property of M-Negations

As we have seen m-negations derive from nouns merged in object position. At first these objects had the function of scalar elements. To say that someone has not eaten even a crumble of bread or a bight of food means that the act of eating has not reached the minimal degree to be considered as fulfilled. In some sense the following DP provides a scale and the minimizer object expresses the minimal degree of this scale. This fact explains why in old varieties these elements were possible also in positive contexts:

- (19) On sté de scisceri e miga de vin d'intrà. (Old Milanese, from Vai 1996)
 a *staiò* (20l) of chickpeas and MICA of wine of income

As we have seen, during the development of m-negations, the minimizers are not inserted as object nouns anymore. At the end of the diachronic process, that is when m-negations become the morpheme of standard negation in a given variety, these elements lose the property of expressing a minimal degree. In other words, standard m-negations are not themselves scalar. However, in the case of non-standard m-negations, scalarity seems still to be a relevant factor. M-negations used to reinforce standard negation have a function similar to adverbs like ‘at all’. In this case, even if m-negation does not occupy the object position, the predicate is denoted as not fulfilled since a minimal “amount” of the act or the property expressed by it has not been reached. Vulgar minimizers have a similar semantics, with the difference that they express the fact that a minimal degree of acceptability or convenience has not been reached. “Presuppositional” m-negations are different, but we argue that scalarity

⁴ Notice that Postal (2003) argues that vulgar minimizers (at least in American English) are not negations. Furthermore, they never become the standard negation, while many varieties in Northern Italy have a standard m-negation. This fact could be related to their connotative meaning, which seems to be incompatible with pure functional items.

is relevant also for this type of negation. As we have seen, these negations are used to deny some assumption considered to be wrong by the speaker. If we postulate that the propositional content of a sentence can be measured according to a scale of plausibility (or acceptability), m-negations of this type express the fact that the minimal degree of this scale has been overstepped. Thus, it appears that scalarity is a property that m-negations keep till they become standard negation morphemes.

3. Q-negation

The other type of negative marker which can be either a non standard negative marker or a standard one, and which has received little attention in the literature, (apart from Zanuttini's work), is q-negation (from now on q-negation).

Q-negation has developed into the standard negative marker in dialects like Piedmontese and some Badia Rhaetoromance dialects:

- (20) a. A parla nen. (Turin)
SCL speaks NEG
'He/she does not speak.'
- b. Al ven nia. (Corvara⁵)
he comes NEG
'He does not come.'

In some other Rhaetoromance dialects, the negative quantifier is combined with a preverbal negative marker *n*, which alone cannot express negation:

- (21) Dytaurela n el *(nia) gny. (S. Leonardo di Badia)
yet NEG is- SCL NEG come
'He has not come yet.'

Notice that the element in some dialects is still homophonous with the negative quantifier meaning 'nothing', as in Rhaetoromance, while in Piedmontese, though etymologically related, the two words for the negative marker and the negative quantifier are nowadays different: *nen* is the negative marker, while *gnente* is the word for 'nothing'.

Generally, this type of negative marker is either not compatible with negative quantifiers, as in Rhaetoromance:

- (22) a. *I n a nia ody degugn.
I NEG have not seen no one
'I have not seen anybody.'
- b. I n a ody degugn.
I NEG have seen no one
'I have not seen anybody.'

Otherwise, there are strong restriction on the co-occurrence between the two, which cannot be adjacent:

⁵ Notice that this structure is only found for younger speakers, older speakers still use the same type of discontinuous negative marker exemplified by the example of S. Leonardo.

- (23) a. *A ’m dis nen gnente. (Piedmontese, from Zanuttini 1997)
 SCL me tells NEG nothing
 ‘He does not tell me anything.’
- b. *A veddu nen gnun.
 I see NEG nobody
 ‘I do not see anybody.’

Zanuttini (1997) already notes that this type of negative marker occupies a very low position in the clause, as shown by the following examples which exploit the position of low adverbs to show the point:

- (24) a. A l’avia già nen volu ’ntlura. (Piedmontese, Zanuttini 1997)
 SCL it had already NEG wanted then
 ‘He hadn’t already wanted at that time.’
- b. A l’ha nen dine sempre tut.
 SCL it has NEG said always everything
 ‘He has not always said everything.’

The following structure is the one proposed by Zanuttini on the basis of Cinque’s hierarchy of low adverbs.

- (25) [...[T Anterior *already* [Asp Terminative *anymore* [FP *neg* [Asp Perfective *always* [Asp Completive *tutto*]]]]]]]

An additional argument in favour of her hypothesis is the fact that in V2 Rhaetoromance dialects, the negative marker is topicalized to (some) SpecCP with the verb:

- (26) Nia desmentié ne podun-se dōta chē jënt che...
 NEG forget NEG can-we all those people who...
 ‘We cannot forget those people who...’

In these dialects, q-negation is treated as the negative morpheme which does not trigger any special pragmatics, and is compatible with any verb type or structure and possible with any sentence type in main as well as in embedded domains⁶.

Notice that an example like (26) shows that the presence (or its absence see (24)) of the preverbal negative marker is not due to the fact that ‘nothing’ is a polarity item. If it were, it could not be placed in a position higher than the negative marker. We believe that doubling phenomena between negative markers are different from negative concord between what looks like a negative quantifier (we will refer to this class with the theory-neutral term “n-words”) and negation. One strong argument in favour of this split is that there is dissociation between the two properties: not all dialects where negative doubling is possible tolerate negative concord with n-words. Therefore, the occurrence or absence of a negative marker with the q-negation is not

⁶ One exception is the imperative form in S. Leonardo Rhaetoromance, which is not compatible with *n...* *nia*, but requires a different negative markers. Those speakers who only use *nia* for sentential negation and not the discontinuous form, can have *nia* in imperative contexts. See Poletto and Zanuttini (2003) for a detailed description of this phenomenon.

to be assimilated to the standard negative concord phenomenon, and q-negation will be not analyzed as a polarity item as often n-words are.

An observation which shows that *niente* is “special” within the domain of n-words also in standard Italian are cases of constituent negation of elliptical constructions of the following type:

- (27) a. niente storie, eh?
no stories PRT
‘Don’t make a fuss.’
b. niente patate, per piacere sono a dieta
no potatoes please am at diet
‘No potatoes please, I am on a diet.’

In these examples *niente* behaves in a parallel way to the English negative article *no*. (see Moscati (2006) on this). However, notice that the Italian construction is much more restricted, as it can only occur in the elliptical construction above, which has the flavour of a negative imperative where the verbal complex has been deleted. In any other context, the usage of *niente* as a negative article, or as constituent negation, is banned:

- (28) a. *Ha niente vino.
has no wine
‘He has no wine.’
b. *Ho visto niente gatti, ma cani.
Have seen no cats, but dogs
‘I have not seen any cats, but dogs.’

One further interesting property about Italian *niente* is that it has non-negative usages in contexts like the following:

- (29) Waiter: Cercava qualcosa?
‘Where you looking for something?’
Customer: niente, cercavo il grana.
‘Nothing, I was looking for parmesan cheese.’

Here the customer is not saying he was not looking for anything, he is “minimizing his action”, expressing the fact that he does not need any help, although he was indeed looking for something. This type of usage is probably scalar, which is, as we will see, a core property of those elements that can be reanalyzed as standard negative markers. In view of the diachronic path we are trying to establish, it is more interesting to examine the negative marker originating from a quantifier in those dialects where it is not (yet) the standard negative marker, but is a negative ‘reinforcer’ roughly meaning ‘at all’. The standard Italian expression translating ‘at all’ is *per niente*. However, the distribution of bare ‘nothing’ in Veneto dialects is more restricted, and we think revealing, with respect to the corresponding complex AdvP *per gnente*, which also means ‘at all’. Apparently standard Italian has not yet begun the process which might take ‘per niente’ to become a negative marker, while Veneto has started, but not completed the process. This is the reason why this can be more telling in view of the diachronic process examined in section 2.

3.1. The Distribution of q-neg non standard negation

In what follows we describe the distribution of q-negation in Venetian, a dialect where bare ‘nothing’ is so to speak caught in the act of becoming a negative marker.⁷ The element *gnente* ‘nothing’ seems *prima facie* incompatible with a direct object of transitive verbs, with unaccusative and passive subjects:

- (30) a. Nol lavora gnente.
NEG-SCL works nothing
b. Nol dorme gnente.
NEG-SCL sleeps nothing
c. *Nol leze gnente i libri.
NEG-SCL reads nothing the books
d. *Nol magna gnente la me torta.
NEG-SCL eats nothing my cake
e. *Nol riva gnente.
NEG-SCL arrives nothing
f. *Nol ze sta arestà gnente.
NEG-SCL is been arrested nothing

Q-negation would thus be possible only with real intransitive verbs, which have no object as shown in (30). This set of data might at first sight lead the observer to the conclusion that, though q-negation is not an object but an adverbial element, it is still merged in object position (and then moved). This would be the reason why it is incompatible with anything else occupying the object position (either object of transitive verb, unaccusative subjects or passives). This is actually the hypothesis formulated by Bayer (2008) for *nichts* in German varieties or *nothing* in some colloquial varieties of English.

However, a closer look at the phenomenon reveals a more complex picture in the NIDs.

Other unaccusative verbs are indeed compatible with q-negation, and the same is true of subjects of psych-verbs which, according to Belletti-Rizzi (1988), should be parallel to unaccusative in having a subject generated in the object position:

- (31) a. No la crese gnente.
NEG SCL grows nothing
b. Nol me piaze gnente.
NEG-SCL me likes nothing

The distinction internal to the class of unaccusative verbs is the one proposed by Tortora (1997): inherently directed motion verbs are incompatible with q-negation, while non inherently directed motion verbs are indeed compatible with it.

Moreover, q-negation is not per se incompatible with an element in object position, if the object is a bare plural, (defining some sort of activity, like ‘read books’) the combination is indeed possible. Consider the following contrast:

- (32) a. *Nol leze gnente i libri, sto fio.
NEG-SCL reads nothing the books this boy

⁷ The phenomenon is rather widespread in the Veneto area, in some dialects the item can also occur without the preverbal negative marker, showing that *gnente* cannot be treated as a negative polarity item occurring in a negative concord structure.

- b. Nol leze gnente libri, sto fio.
NEG-SCL reads nothing books this boy

One again might be lead to think that there is a distinction between definite and indefinite objects, but consider the following example:

- (33) a. %Nol salta gnente.
NEG-SCL jumps nothing
* 'It does not jump'.
OK (said of a long jump athlete) 'He does not jump much.'

A verb like *saltar* 'jump' is intransitive, hence it should be compatible with q-negation. However, it is not unless the interpretation is one of activity (for instance in the context of a professional long-jump athlete, whose job is to jump).

The following contrast is even more illuminating:

- (34) a. No-l zola gnente, sto aereo di carta.
NEG-SCL flies nothing this plane of paper
'This paper plane cannot fly at all.'
b. *Nol zola via gnente, sto aereo de carta.
NEG-SCL flies away nothing this plane of paper
'This paper plane cannot fly away at all.'

While *zolar* 'fly' is an activity, *zolar via* 'fly away' is telic, and q-negation is only compatible with the first verb, though in neither of the two cases is there an object.

Hence, we cannot conclude that the relevant property in banning q-negation is the presence of an object. Rather, it must be related to type of aspectual distinction (or better Aktionsart), which can be activated by the presence of a definite object, or be intrinsic to the type of verb or required by the presence of some verb modifiers.

That Aktionsart is involved is also shown by cases of activity verbs which can be turned into accomplishment simply by adding a preposition and forming a phrasal verb. Venetian, just like English has a couple of verbs like 'eat' and 'eat up' *magnar* and *magnar fora* (literally 'eat out'):

- (35) a. Nol magna gnente⁸.
NEG-SCL eats nothing
'He does not eat at all.'
b. %Nol magna fora gnente.
NEG-SCL eats out nothing
'He does not eat up at all.'

The second sentence is impossible in the relevant reading, unless the sentence is interpreted as considering 'eat up' a habit, hence turning again the verb into an activity one.

Notice however that the distinction cannot simply be one of telicity, as q-negation is not automatically compatible with any atelic verb: *sercar* 'to look for' is for instance atelic, but it is still incompatible with the negative quantifier.

⁸ This sentence is ambiguous between a reading in which *gnente* is the object of the verb *magnar* and a reading in which *gnente* means 'at all'. Obviously, we will consider only the second reading.

- (36) *Nol serca gnente libri.
 NEG-SCL looks-for nothing books
 ‘He does not look for books at all.’

Hence, the fact that *gnente* is incompatible with telic verbs seems to be only a byproduct of a deeper property of the negative marker.

Moreover, although all cases of telic verbs, accomplishment and achievement verbs are not compatible with q-negation, notice that also stative verbs, like ‘live’, ‘be’, ‘stay’ are banned with *gnente*:

- (37) *Nol vive gnente a Venessia.
 NEG-SCL lives nothing in Venice
 ‘He does not live in Venice at all.’

Therefore, telicity cannot be the core property here, although the property must have some connection to Aktionsart. For the moment, we propose the following empirical generalization:

- (38) q-negation is only compatible with activities.

In what follows we try to disentangle the problem.

3.2. *Q-negation as a monotone decreasing quantifier*

We would like to propose that the reason why q-negation is compatible only with activity verbs is that it is a scalar operator, which requires that each step of the scale be homogeneous.

The argument in favour of this is that other scalar elements like ‘poco’ little’ have the same distribution:

- (39) a. Nol ze gnente simpatico.
 Not-he is nothing nice
 b. *Nol ze gnente malà.
 Not-he is nothing sick
 c. El ze poco simpatico.
 He is little nice
 d. *El ze poco malà.
 He is little sick

Therefore, *gnente* is a scalar element quantifying over the scale being provided by the predicate itself. If *gnente* is parasitic on the predicate for a scale to quantify over, only predicates which can be in any way interpreted as scalar are compatible with *gnente*. In informal terms we state that in order to be compatible with the type of scale required by *gnente*, the predicate must first be apt to be split into a set of discrete smaller events, which can then be placed onto the scale. Activity verbs can be interpreted as a set of similar events occurring at different points in time and thus are indeed compatible with a scalar interpretation⁹:

⁹ Notice furthermore that there is a distinction between *gnente* ‘nothing’ and *per gnente* ‘at all’, though they seem at first sight to be very similar, as *per gnente* is compatible also with non scalar predicates.

- (40) Nol lavora gnente.
NEG-SCL works nothing
'He does not work at all.'

The example above means that he does not work at moment A, B, C etc. Hence, the scale seems to be uniform in term of the type of event and can only be a temporal one. Punctual verbs or verbs indicating a single process which cannot be split into smaller events are not compatible with *gnente* because the quantifier has no scale to apply over.

Therefore, the link between q-negation and the direct object needs not be a direct link in the sense that q-negation and the object compete for the same position, but an indirect one, due to the fact that the presence of a referential object prevents the predicate from being interpreted as a scale of similar events: if the predicate is 'eat the apple' there cannot be many instances of eating the same apple. Therefore, the interpretation of the predicate as a uniform activity necessary to construe a scale on which the quantifier can apply.

Notice however, that if a temporal scale of the type seen above were the only possible one, cases like the following should be ungrammatical:

- (41) Nol ga dormio gnente.
NEG-SCL has slept nothing
'He did not sleep at all.'

Given that this is a past form,¹⁰ it cannot be read as a sequence of different events of sleeping which are negated. In this case the scale is provided by the type of predicate itself, which can be put onto a scale, so that each event that is negated corresponds to a scale like the following: he did not sleep for eight hours, he did not sleep for seven hours,... he did not sleep for a single minute. Notice that this is a temporal scale too, as the one seen above, but a temporal scale which is established on a single instance of the event, because of the type of event, which is intrinsically prolonged.

We can conclude that *gnente* is sensitive to the type of scale used, and that not any scale is possible, but only a temporal one, which either quantifies over several instances of similar occurrences across time or on a single instance which can be split in time intervals.

Therefore, saying that *gnente* is scalar is not enough, the scale must uniform in terms of type of event it quantifies on.

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- (i) Non è malato per gnente. (standard Italian)
Not is sick at all
'He is not sick at all.'

The distinction between dialects where q-negation is the standard marker for negation and those where it is a special marker has to do exactly with the fact that in those dialects (and languages) where q-negation has a non standard value, it is still a quantifier, whose properties require a scalar reading. The scalar reading is probably the connection between the next step in the grammaticalization process which reanalyzes the quantifier as a negative marker. For a recent overview of Negative quantifiers and negative concord see Moscati (2006) chapter 5.

¹⁰ in the Northern Italian dialects there is no difference between present perfect and simple past, the only form is the one above)

The hypothesis we would like to put forth here is that *gnente* is a monotone decreasing quantifier¹¹ similar to, *no*, *few* and *only*, and that its apparently bizarre properties are derived from the fact that it belongs to this class of quantifiers.

Monotone decreasing quantifiers (also called downward entailing) have the following property: if the first sentence is true, the second also is:

- (42) a. No boy runs.
b. No boy runs fast.

The same property can be shown to be valid for *gnente*:

- (43) a. Nol core gnente.
not runs nothing
'He does not run at all.'
b. Nol core gnente forte.
Not runs nothing fast
'He does not run fast at all.'

The basic mathematical property of a monotonic function, is that it has to go always in the same direction. Being *gnente* an adverb, its monotonicity has to apply to the predicate. Given that in mathematics, the function expressed by the monotonic quantifier has to be defined on a subset of the real numbers with real values, this implies that it must be possible to create a subset of instances of the predicate which are discrete, in other words, it must be possible to create a subset of similar events, for each of which the function is applied, hence, each of which is then negated. The fact that the instances of the event negated are of the same type thus derives from the monotonicity of the quantifier. Suppose furthermore that *gnente* is a strictly decreasing monotonic quantifier, this means that the set of events on which the quantifier applies will have to order on a (decreasing) scale and each of them is associated with the function of the quantifier, hence negated. This property derives the fact that *gnente* needs a scale, as each instance of the event has to be put on a decreasing scale in order to be associated to the function of the quantifier (which is negation).

Hence, the property of requiring a set of discrete events comes from the monotonic property and the fact that they have to be ordered onto a strictly decreasing scale comes from it being a strictly decreasing quantifier. We can conclude that in the dialect examined the n-word¹² has become an adverbial element with the properties of a strict monotone decreasing quantifier.

3.3. Some diachronic observation

Once we have seen that the n-word corresponding to 'nothing' can be reanalyzed as an adverbial with the properties of a monotone decreasing quantifier scoping over the

¹¹ Monotone decreasing GQs are among the expressions that can license a negative polarity item, such as *any*.

1. Good: No boy has **any** money.
2. Bad: *Every boy has **any** money.

Probably *gnente* is itself formed by a quantifier similar to the determiner *no* and an NPI in its internal structure. We will not pursue this here any further.

¹² We use the term n-words here to refer to all those elements which in the Romance languages can either have the properties of negative quantifiers or of negative polarity items.

event in Venetian, we can go back to the original problem, namely the one of the diachronic evolution of different elements which already appear to have undergone Jespersen's cycle and have become standard negative markers. Veneto dialects seem to constitute the first step of the grammaticalization process of the n-word into a negative marker passing through a stage in which the element, originally used only in argumental position, can be reanalyzed as an adverb. The first question is then why among all n-words only the one corresponding to 'nothing' has undergone this process. In the Northern Italian dialects there is no other n-word which behaves so: we do not find cases of 'nobody' or other n-words which can be reanalyzed as the sentential negative marker¹³. On the one hand, the fact that 'nothing' is selected among the negative quantifiers to become the negative marker is part of a more general process which has to do with grammaticalization as loss of lexical features by the element becoming functional. On the other, this n-word must have some syntactic/semantic special property which singles it out in the domain of all n-words. Notice that the same type of process can be seen with wh-items, where the element becoming a wh-clitic (as the interrogative wh-item *que* in French, see Poletto and Pollock, 2004) or a complementizer is always the semantically (and syntactically) barest operator; in the sense that it has the smallest set of features because its lexical restrictor is virtually non-existent (see Obenauer, 1994)¹⁴. So, while a wh-item like 'who' or 'where' contain a lexical restrictor which is respectively [+human] and [+place] the element corresponding to 'what' has no lexical restrictor, and thus it is the barest and more functional element, in a sense the 'purest' operator and most functional one due to lack of semantic features and consequently to a different internal structure which lacks a lexical restrictor. Hence, while elements like 'noone' etc. have a Q projection inside, followed by an existential one and a restrictor, *gnente* also lacks the restrictor on a par with 'what'¹⁵.

But, if *gnente* has no lexical restrictor to quantify over in its internal structure, this means that it is the most prone element to become an adverbial form parasitic on the external structure (namely IP) to find a restrictor. We have seen that the first step of the grammaticalization is precisely the one which transforms the n-word in argumental position into an adverbial quantifier which takes the predicate in its scope. This is expected if, as already shown by Zanuttini (1997), the position of *gnente* is inside the aspectual field. Zanuttini uses Cinque's theory of lower adverbs to place q-negation in the IP domain and shows, as already mentioned, that it is located in the following position:

- (44) [...[T Anterior *already* [Asp Terminative *anymore* [FP *neg* [Asp Perfective *always* [Asp Completive *tutto*]]]]]]]

¹³ There seems to be cases of sentential negation formed with no+ever in the Germanic languages. It is however a fact that in Romance the corresponding element *mai* 'never' has not become a negative marker in any of the dialects present in the ASIS database. The difference between the Germanic and its Romance counterpart, if a true one, still remains obscure.

¹⁴ Notice that however, the element corresponding to the inanimate object is not the only one which can become a clitic, or a complementizer (see for instance cases of clitic whs corresponding to 'where' or complementizers like Bavarian *wo* 'where'), it is only the most frequent one.

¹⁵ A similar type of process is also reported for the formation of object clitics in Benincà and Poletto (2005): direct object clitics are always the most frequent clitics even in languages which do not have any other type of (dative, nominative, partitive or locative) clitic.

Can we determine what the position of q-negation is in Veneto, which represents the intermediate diachronic stage? The element is compatible with *più*, and it occurs to its right, as shown by the following example:

- (45) Nol ga più dormio gnente, da chela volta.
 NEG-SCL has anymore slept nothing since that time
 ‘Since then, he did not sleep at all anymore.’

However, q-negation is not compatible either with the adverb *sempre* ‘always’ or with the quantifier *tutto* ‘everything’, so the test is not complete and we cannot really determine what the exact position of q-negation is.

However, there are indirect clues of the position of q-negation: Old Italian also had cases of q-negation with properties that are strikingly similar to the one discussed here for Venetian. Differently from Venetian, Old Italian had overt quantifier raising across the past participle for both the quantifiers *tutto* and *niente* (see Poletto, 2008, for a detailed analysis of the position of *niente* and *tutto* in Old Italian) with *niente* occurring higher than *tutto*.

Similar clues come from an analysis of negative quantifiers put forth by Vecchiato (1999) which gives the following hierarchy in modern French:

- (46) guère > trop > rien > complètement > tout > beaucoup/peu > bien > ...

This shows that the standard negative marker derived from q-negation and the adverbial quantifier are in the same position, a position dedicated to (bare) quantifiers in the low IP area, which, as shown in Cinque (1999) is the same position occupied by French *rien* ‘nothing’ even when it is an argument:

- (47) a. Il a rien vu.
 he has nothing seen
 b. *Il a vu rien.
 he has seen nothing
 ‘He has seen nothing.’
 c. Il a vu personne.
 he has seen nobody
 d. *Il a personne vu.
 he has nobody seen

Does *gnente* in Venetian also occupy the quantifier position when it is an argument as it does in French? Unfortunately, the test of French is not available, as the Venetian past participle raises too high to give rise to the order *gnente*-past participle. If we apply Cinque’s tests on adverbials the results are ambiguous: if *gnente* were in the quantifier IP space, it should precede the lowest adverb, namely ‘well’, in Venetian *ben*:

- (48) a. Nol ga visto gnente ben.
 Not.he has seen nothing well
 b. Nol ga visto ben gnente.
 Not.he has seen well nothing

Both sentences are correct, with the difference that in the second one *gnente* seems to have focus. Focus is however a disturbing factor, as the focalized XP might have moved to a low left peripheral Focus position internal to the low vP phase (see Poletto, 2007, on this). If we contrast object *gnente* with other objects we see that *gnente* needs to precede other arguments, while this is not the case for DPs:

- (49) a. Nol ghe ga dito gnente a Nane.
NEG-SCL him has said nothing to N.
'He did not say anything to N.'
- b. *Nol ghe ga dito a Nane gnente.
NEG-SCL him has said to N nothing
'He did not say anything to N.'
- c. El ghe ga dito a Nane sta storia.
SCL him has said to N. this story
'He told this story to N.'
- d. El ghe ga dito sta storia a Nane.
SCL him has told this story to N.

This contrast can only be explained by assuming that *gnente* obligatorily moves to the quantifier position, as it does in French.

Hence, given that *gnente* also moves in Venetian as it does in French, we can conclude:

- a) that the argumental, the non standard and the standard q-negative marker all occupy the same position dedicated to bare quantifiers in the low IP area.
- b) that reanalysis of the bare quantifier 'nothing' into a monotone decreasing quantifier and then into the standard negative marker is not ensued by moving the reanalyzed element further up in the structure but simply by turning a movement process (the object quantifier raises to its dedicated position) into a merge one (the adverbial quantifier is directly merged in the position where it surfaces).

4. The negative field

Having analyzed two distinct types of elements which both end up as a standard negative marker, we now have to reconsider their differences and similarities in order to arrive at a conclusion concerning what the core property is which enables to reanalyze a given item as a negative marker.

Starting from the differences, we have observed that minimizers are real DPs which take a complement and can have adjectives and an article. The first step of the reanalysis is assumed to be an internal one, in which the minimizer is not the head noun anymore, but a classifier belonging to the functional domain of the DP whose lexical N is the original complement of the minimizer. Being minimizers reanalyzed as classifiers of measure, they imply the presence of a scale, which enables them to be once more reanalyzed as FPs which are part of the IP. Once they have been reanalyzed as classifiers, they are treated as measure classifiers because of their meaning, which implies the presence of a scale. This in turn enables them to be further reanalyzed as functional XPs located in the domain of IP, with the scale being provided by the predicate itself.

Q-negation is different, because it cannot be reinterpreted as a classifier of its original complement, being the whole complement itself. However, being a quantifier it raises to a dedicated position for quantifiers in the domain of lower adverbs (see Poletto, 2007, for an analysis of bare quantifiers in these terms). As *gnente* is the barest

quantifier in terms of lexical restriction, it can be reanalyzed as an adverbial quantifier whose scope does not simply range over the object, but over the entire event (which must then have the right properties in order to provide the uniform type of scale required by the quantifier, as seen above). Given that the object quantifier already moves to a position inside the Aspectual field, reanalysis simply cancels the trace in object position and q-negation is merged in the FP where QPs move.

Therefore, the diachronic path followed by the two elements seems to be rather different but then the original problem remains: is there any common property which enables those items to be reanalyzed as negative marker and if so, what is it?

We would like to propose that the common property the two types of items have in common is the one already discussed for both cases, namely scalarity.

Minimizers which become measure classifiers and the n-word becoming a uniform monotone decreasing quantifier both have scalar properties. The scale is at the beginning of the reanalysis process simply “accessory”, it is implied by the process: a noun becoming a classifier acquires scalar properties and the same does an n-word becoming a monotone decreasing quantifier scoping on the event. If this is the core property which turns the two elements into negative items, why is scalarity so important? At the moment we have no precise answer to this question, but we would like to point out that another type of sentential negation in Romance, namely the preverbal negative marker *ne* is analyzed as a scalar element by Roorick (2008). He clearly shows that *ne* is a minimizer and that it is not polarity negation, but scalar one, which takes the minimal amount of a scale. One could further speculate whether this is so in other Romance languages as well. Although Roorick explicitly denies that the corresponding negative marker in Catalan is scalar (although it has scalar uses, as he observes), he leaves the possibility open that in Romance languages having only a preverbal negative marker, there is a null element corresponding to *pas*, which is (according to Roorick) the real negation. Italian is also a candidate to this, as the scalar uses of French *ne* can be replicated for Italian *non*.

At this point we do not know whether Roorick is correct in assuming that the position where French *pas* occurs is the real negative one. Italian counterpart of *pas*, *mica*, is not a negative marker *per se*, but a minimizer as the ones discussed in this work.

If preverbal negation is a minimizer and it combines with a minimizer, then there is no polar negation around whatsoever, and this opens up the possibility that at least in some Romance language, negation is not the linguistic counterpart of logic negation, it is not an operator denying the truth value of the entire proposition, but it is a sort of inference produced by opening a scale and taking the minimal possible value. However, this topic would lead us too far from the scope of this article, which is to show what kind of property different types of items becoming negative markers have in common. Therefore, we conclude the work leaving this perspective for future research.

A further problem which opens us and which we leave to future research (see Poletto, 2008, on this) is due to the position of these negative markers: it seems to be a general fact that non-standard and standard negation occupy the same position, so the position is not determined by its status (standard/non-standard). If it were so, we would expect to find a change in the position of items which are realized as standard negative markers. On the contrary, the position of negative markers always coincides with their etymological type. This, as originally pointed out by Zanuttini (1997), shows that sentence negation is not related to a single position in the sentence. However, it forcedly leads us to the following question: how can elements located in different points of the structural tree still license the same reading? The answer we put forth

here is again the one mentioned before: negation is not a polarity operator which denies the truth value of the CP, negation is a complex phenomenon and involves the activation of several projections in the clause structure, none of which in the end can probably be labelled as NegP. Each of them is checked by a different type of element, a scalar, a minimizer, a quantifier (or even a focus one, see again Poletto, 2008). The presence of only one of these elements can “re-construe” all the others simply by signalling that they are present. In other words, what we call NegP is a complex set of projections, the lexicalization of just one element is enough to activate the whole NegP. This in turn implies that, although according to the analysis put forth here there are at least three projections in the clause (the preverbal negative marker, m-negation and q-negation) which have to be checked by elements located in the four corresponding projections. Only one of these projections needs to be lexicalized, the others can be phonologically silent, but still be there.

5. Conclusion

In this work we have taken into account minimizers which become (non standard) negative markers and have traced their diachronic path from a lexical noun, to a classifier internal to the DP, to a minimizer quantifying over the entire event. Although m-negation is not per se a scalar element anymore in modern Italian, its etymology and older stages of Italian clearly show that it must have been during the grammaticalization process. Therefore, we have taken into account a second type of element, q-negation, which is still within the process of grammaticalization in some Italian dialects and we have shown that it is indeed a scalar element. We can conclude that in order to become a negative marker, a lexical item has to undergo a process in which it becomes scalar (and therefore, only element which can be reinterpreted as scalar ones, can become negative markers). Another common property of the two types of elements is that they both start out as a negative object, whose scope is then extended to the entire predicate. In the case of m-negation, the element has moved from its original object position to a position internal to the functional space of the past participle. In the case of q-negation, the element, being a negative quantifier, is already located in the functional space of the past participle and remains where it is. We are aware of the fact that our line of research opens more problems than it solves, but we hope to have at least shown that scalarity is a crucial property in the process of development of negative markers.

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