

## Modeling the Semantic and Pragmatic Evolution of *ne ... pas* in French

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### 1 Introduction

The collection of varieties known as “standard French” have changed over the years from expressing negation primarily with preverbal *ne* alone, to the embracing construction *ne ... pas*, and then to postverbal *pas* alone. This is one of the best-known syntactic changes in French, and has been the subject of numerous studies, too many to list here. The most complete overview is given by Kawaguchi (2005). It has been investigated in small corpus studies in Old French (e.g. Yvon 1959) and early Modern French (Martineau and Mougeon 2003), and sociolinguistic studies have examined recent changes in the language (Ashby 1981, Ashby 2001). The following examples are taken from a corpus of French theatrical texts that I have compiled for this project, with the negative particles highlighted in bold:

- 1) Diabolus : *Tu as li bien, **n'en** sez joïr*  
Diabolus: ‘You have something good, but you don’t know how to enjoy it.’  
(Ordo Representacionis Ade, ca. 1160)
- 2) Cain : *J'ay trop peché villainement; je **ne** suis **pas** digne de vivre.*  
Cain: ‘Wickedly, I have sinned too much; I am not fit to live.’  
(Mystère du viel testament, ca. 1480)
- 3) White : *Il vous arrive fréquemment de faire vos propres tatouages ?*  
Marcos : *Trop dur. Et puis, je suis **pas** doué en dessin. Tant que ce n'est que des lettres.*  
White: ‘Is that something you do often, make your own tattoos?’  
Marcos: ‘That's too hard. And I'm not exactly gifted in design. But as long as it's only letters...’  
(Eric Hubert, Le parfumeur, 2003)

Similar changes have been observed in other languages : in English the preverbal particle *ne* was supplemented with *nought* ‘nothing’ (itself derived from *ne a wiht* ‘not a thing’), and *ne* was then dropped. Jespersen (1917) published a comparative study of the evolution of negation in English, French, German and Danish, noting that Classical Latin seems to have gone through the process once before it became French : the original negator *ne* was supplemented with *ænum* ‘one’, then *ne ænum* was reduced to *non* and then back to *ne*. Depending on the positions of the negative particles relative to the verb, either the two particles can coalesce into a single preverbal particle as in Latin, or the preverbal particle can be dropped leaving a single postverbal particle as in English and French. Because this can go on indefinitely, Dahl (1979) gave it the name of Jespersen's Cycle. Kiparsky and Condoravdi (2006 : 1) note that it has happened at least twice in Greek.

Old French had three main postverbal particles: *pas* (cognate with a noun meaning ‘step’), *point* (‘point, stitch’) and *mie* (‘crumb’). Some authors (e.g. Ewert 1943, Posner 1985, Gregory 1997) also include *nient* (‘nothing’), *giens* (‘person’) and *goutte* (‘drop’), especially since they are used in closely related Romance varieties, but many of them were more commonly used as negative pronominals. Price (1997) also found significant regional variation in the use of these negative constructions. While *ne ... pas* predominated in Paris, Normandy and England, *ne ... mie* was more common in Northern and Eastern France, particularly Lorraine and Picardy. In the northern parts of Burgundy that became Belgium, *ne ... nient* was popular. He confirmed this with data from the Atlas Linguistique de France collected between 1902 and 1920.

Schwenter (2006) describes the syntactic changes that occur in Jespersen's cycle in four stages, but adds a "Stage 3/4" where he places present-day colloquial French. I believe that this stage deserves its own number, and I have accordingly renumbered Schwenter's Stages 3/4 and 4, for a total of five stages:

Schwenter's number	Number used here	Syntactic characteristics
1	1	Primarily preverbal with some embracing constructions used for emphasis
2	2	Embracing constructions are regular and frequent, but preverbal constructions dominate
3	3	Embracing constructions dominate; preverbal constructions still occur in relic contexts
3/4	4	Embracing constructions dominate, but occasionally reduced to postverbal constructions
4	5	Postverbal constructions dominate; some relic embracing and preverbal constructions persist

Table 1: Stages of Jespersen's Cycle

I have been investigating the syntactic aspects of the change : when did people start using *ne ... pas*, and why ? Before we can address these questions, however, we need a firm understanding of the semantic and pragmatic issues. For the entire recorded history of French, the preverbal *ne* alone and embracing *ne ... pas* constructions have been used by the same speakers and writers with several distinct but related meanings, for several distinct but related pragmatic functions, sometimes in the same sentence. We cannot fully understand the syntactic changes until we know what semantic and pragmatic changes happened and when.

I will begin with a discussion of several studies that focus on one or a few steps in the semantic and pragmatic evolution of these forms, fitting each of them into Traugott's (1989) framework for semantic change, and Geurts' (1998) semantic classification of negation constructions to form a complete cline. I will then discuss the corpus that I compiled for this study, and how I used it to test this issue. I will conclude by showing how the corpus results confirm the picture that I assembled from these other works.

## 2 Latin antecedents

The usual story of French negation, as found in any number of discussions of the issue (e.g. Detges and Waltereit 2002, Hopper and Traugott 2003, Rostila 2006), goes something like this : In Latin, the negator of choice was *non* alone, but people said *non vado passum* as a figure of speech to mean "I'm not going one step." They said it often enough that the word *passum* became polysemous, with a noun retaining the original meaning of "step and an adverb that, bleached of the restriction to motion, served to intensify negations. There were other phrases, such as *non vedo punctum* and *non comedo micam*, meaning "I don't see one point" and "I'm not eating one crumb." In the meantime, *non* was reduced to *ne*. The phrase *ne ... pas* gradually increased in frequency until it replaced *ne* alone and eventually all the other negators, and then people began to stop saying the *ne* in the vernacular, so now the main negator is postverbal *pas* alone.

The essentials of this story are correct, but as with most stories that are widely told, it is a simplification, and the expanded version contains several important details. There is in fact no evidence that anyone has ever said or written *non vado passum*, except as an example sentence. Schweighäuser wrote (1852 : 224), "Let us note in any case that this change in the meaning of the word *pas* predates the most ancient relics of the language." I have been unable to find any instances of *passum* or its Vulgar Latin variant *passu* used with the verb *vadere* or any other verbs of motion.

Although he has no simple examples of *passum* used in negation, Schweighäuser indicates (1852 : 224), two examples where Plautus uses the related noun *pes*, “foot” as an item of minimal value, but they use the verb *discedere*, ‘to move away from’, not *vadere*, ‘to go’. More importantly, Schweighäuser also brings up the following example, from a document relating to the Albigensian crusade, discussing God’s gift (or lack thereof) of land to Abraham :

- 4) Quod autem dedit **nec passum pedis**, dicit Stephanus.  
'Because he did not give him a single pace, says Stephen'  
*Collection Doat., vol. XXXVI, folio 120*

Schweighäuser does not seem to be aware that the phrase *nec passum pedis* is directly quoted from Stephen’s speech as related in the Latin Vulgate (Acts 7:5), where the Douay-Rheims translation is “not the pace of a foot.” This is the only Latin example where *passum* is used in an item of minimal value, so it merits some close attention. The Latin phrase is in fact a direct translation of a Greek phrase in the original New Testament, οὐδε βημα ποδος. This phrase, in turn, seems to have been used by Stephen to allude to a passage in Deuteronomy 2:5, which was identical in the Septuagint. In the original Hebrew it was לֹא כַפְיִתָּהּ כִּי מִדְּבַר רַגְלֵךָ. This is translated in the King James version as “not so much as a foot breadth”, and in most translations convey the sense of a space that is just big enough to set foot on. In fact, the Vulgate translation of this passage is a very explicit one :

- 5) **neque enim dabo vobis de terra eorum quantum potest unius pedis calcare vestigium quia**  
'For I will not give you of their land so much as the step of one foot can tread upon'  
Deut. 2:5, Vulgate and Douay-Rheims translations

In Latin, *passum* was a Roman unit of distance equivalent to the length of two footsteps (left and right), about five feet. One *passum* was borrowed into English as *pace*, and a thousand paces, *mille passibus*, became our *mile* (Zupko 1985). *Pes* itself was a Roman unit of distance, which fits with Plautus’ use of it in the previous example. The phrase in Acts 7:5 of the Vulgate could have referred to a pace or a foot-breadth.

It is not at all clear that the French phrase *ne ... pas* evolved out of this phrase in the Vulgate Bible. It could have arisen independently, and just coincidentally resembled the form in *Acts of the Apostles*. However, medieval France was a very religious society, and there is also a possibility that the phrase could have been borrowed through allusions to that section of Acts. What is clear is that *pas* did not evolve “from step to negation”, as claimed by Eckardt (2007), but “from pace (or foot) to negation” ; it was already being used as a measurement of area before it became part of a negative construction. A measurement, especially a small one relative to territory, makes more sense as an item of minimal value, and as a minimal unit of both distance and territory *passu* could be expected to occur in a much wider range of contexts than just verbs of motion.

Diez (1882 : 1079), Vaananen (1967 : 240), Stein (2002) and Eckardt (2007) give evidence that *punctum*, *micam* and *gutta*, the antecedents of *point*, *mie* and *goutte* were already being used as items of minimal value in Latin, particularly in the work of Plautus and Jerome. The expression *ne punctum quidam (temporis)* “not a single point in time” was common in the work of Cicero and other authors ; note how, as with *passum*, its sense was a more general, abstract one as opposed to the concrete sense of “stitch” sometimes given. Petronius uses *non micam panis*, “not a crumb of bread” ; more interestingly, Diez cites *non micam sanae mentis habere*, “not a crumb of sane mind”, but the only uses of that expression I can find are in the writings of the sixteenth-century Dutch philosopher Erasmus. The phrase *neque parata gutta certi consilii* “not a drop of a firm plan” is used by Plautus ; interestingly, Lindsay (1900: 30) reports that *gutta* is used in only one of the sources for this play, the one that has been most copied; the other source, the Ambrosian Palimpsest, has *neque paratust quicquam*, “not any kind of ...”, a minimizer that is not derived from a noun, but was passed on to French in the form *quelconque*. It is possible that *gutta* could have been introduced by a copyist.

### 3 Semantic and pragmatic evolution of negation constructions

Winters (1987) gives an outline of the semantic evolution of the morphemes used in French negation. In this section I will update her chronology with reference to works that have been published since her study, and older works that she may not have had access to.

Schweighäuser (1858 : 204) observed that many of the morphemes used in negation can be traced back to nouns indicating “an object of a null or minimal value,” similar to *ænum*. The semantics and pragmatics of these constructions clearly change during the course of the cycle, from referential noun phrases to predicate negation. However, the semantics of noun phrases and negations are far enough apart that we would expect to find some intermediate stages.

Schweighäuser lists eight examples from Plautus, two from Cicero and one from Catullus, using coins (*as*, *dupondius*, *numus*, *teruncius*, *triobolus*), food (in addition to the rotten nut, a *ciccus*, the membrane separating the seeds of a pomagranate) and various materials (*floccus*, a bit of fleece; *naucus*, a kind of nut zest; *pilus*, a hair; *pluma*, a feather; *titivillitium*, a piece of lint), and a *libell* or small book.

Traugott (1989) and others argue that semantic change typically proceeds gradually through polysemy and ambiguity, driven by the conventionalization of pragmatic inferences. Geurts (1998) sets out a semantic classification of negations, where most sentence negations are either simple descriptive predicate negations or else fall into one of four categories of denial. Putting the two ideas together, we can imagine that the change proceeded through these closely-related semantic classes by polysemy and ambiguity.

Let us begin with Schweighäuser’s items of minimal value. Kiparsky and Condoravdi (2006 : 8) use the following constructed English example to illustrate the semantics of these constructions :

- 6) I **haven't** eaten the porridge.
- 7) I **haven't** eaten the porridge **at all**.

The first sentence is ambiguous between a telic reading (“I haven't eaten any of the porridge”) and an atelic reading (“I haven't eaten the entire porridge.”) Kiparsky and Condoravdi point out that, “Adverbial emphatic negation disambiguates the sentence in favor of the telic reading”. The English “at all” construction does not derive from an item of minimal value, but we can easily reword the example as follows:

- 8) I **haven't** eaten **one bite** of the porridge.

As Eckardt (2007 : 249) writes, this use of the construction is “transparent” in that it conforms to the literal meaning of its component words, and is thus likely to be the original construction in this cline. Although it is no longer ambiguous between the telic and atelic readings, it is now ambiguous between the literal reference and the minimal value reading. In fact, the two meanings are compatible with each other. This ambiguity, when multiplied over many similar sentences, creates polysemy in the lexical entry of “one bite,” with both a literal and a minimal value reading. Sentences like this form the bridge between the two interpretations.

For the next stage, Schweighäuser gives us a Latin example from Plautus :

- 9) **Non** ego **nunc** emam vitam tuam **vitiosa** **nuce**.  
'I wouldn't buy your life for a rotten nut.'

This example is not transparent ; the literal connection is gone. This is an instance of hyperbole, an exaggeration to indicate the intensity of the speaker's feeling, and it is consistent with Traugott's (1989) Tendency I, where constructions evolve from expressing a meaning based in the speaker's external situation to one based in the speaker's internal (psychological) situation. The noun phrase *nux vitiosa* is a member of the class of *negative polarity items* that are used primarily in negative and interrogative contexts (Jespersen 1917, Ladusaw 1993, van der Wouden 1995).

Geurts (1998) and Israel (1998) argue that constructions can convey *implicature denial* by invoking scalar models in the mind of the language user. In our example from Plautus, the rotten nut is an item of

minimal value in barter. Its use in this quote actually doesn't map the scale of value of life to the scale of value of barter items, but rather invokes the mapping only to *deny* it, thus implying that the value of the life in question is really zero.

Schwenter (2006) points out that many discussions of Jespersen's Cycle posit a stage where embracing constructions are used for "emphatic negation," but are very vague on exactly what "emphasis" means in the context of negation. For a clearer understanding of "emphasis," he turns to Israel (2001), who argues that by taking a position on the scalar model in contrast to the scalar norm, these negations count as highly informative, which he further describes as "saying something which goes beyond some default explanation". These negatives were called "emphatic" because they were highly informative.

To further understand the uses of "emphatic" negation, Schwenter (2006) examined the use of preverbal, embracing and postverbal constructions in Catalan, standard Italian and Brazilian Portuguese, such as the following constructed examples (slightly modified) :

- 10) [speaker B sees interlocutor A putting on a heavy coat]  
 B: Avui **no** fa **(pas)** fred.  
 B: 'Today it's not cold.'
- 11) A: Chi viene a prenderti, Gianni?  
 B: Non so. Ma Gianni **non** ha **(mica)** la macchina.  
 A: 'Who's coming to pick you up, Gianni?'  
 B: 'I don't know. But Gianni doesn't have the car.'
- 12) A: Você viu esse programa?  
 B: **Não** vi **(não)**.  
 A: 'Did you watch that program?'  
 B: 'I didn't watch it.'

What he finds, in Geurts' (1998) terms, is *presupposition denial*, which is closely related to *proposition denial*. In Geurts' words, "The difference between proposition and presupposition denials is that the former are directed at the asserted content of the previous utterance, while the latter aim at its presuppositions" (Geurts 1998: 276). In other words, in proposition denial there is an explicit assertion being denied, but in presupposition denial it is implicit.

Based on native speaker reactions to the examples above, Schwenter reports that while the preverbal version of each sentence does not require the denied proposition to be active in discourse, the embracing versions are only felicitous where they are used to deny propositions that are already active in discourse. In order to be active this way, the propositions can be implicit and do not have to be overtly stated, believed or accepted by anyone. Note that the Catalan example is felicitous if the other person has said nothing, but simply put on a heavy coat. In Traugott's terms, the *nux vitiosa* of Example (7) is ambiguous between the scalar denial reading and the presupposition denial reading, extending the polysemy of this construction.

Mosegaard Hansen and Visconti (2009) examined a corpus consisting of five Old French texts. They only looked at negations with *ne ... pas* and a similar construction *ne ... mie*, not preverbal negation constructions, and they found that all of the examples in the texts could be characterized as denials.

In syntactic terms, the constructions no longer behave like nouns. They did not acquire the near-obligatory articles that their homonyms (*le pas* 'the step' and *le mie* 'the crumb') use, and they can modify verbs in ways that nouns don't. They form fixed constructions in combination with preverbal *ne*. To illustrate this, I will repeat example (2) from the corpus used in this study:

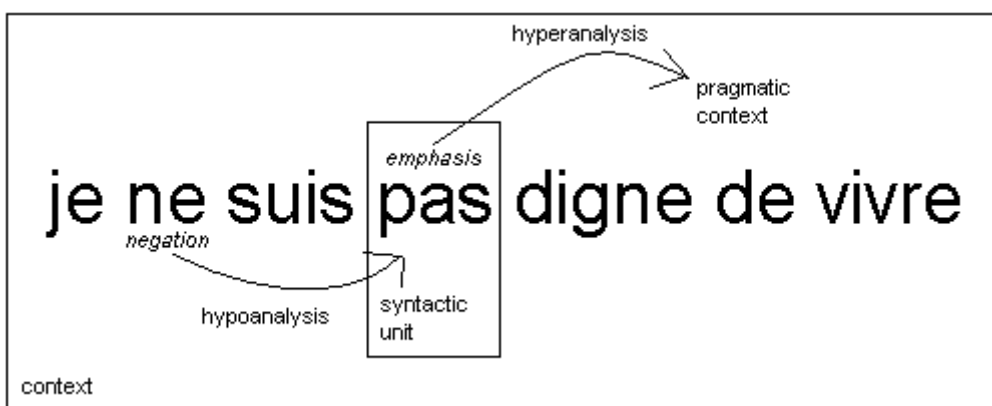
- 13) Cain : J'ay trop peché villainement; je **ne** suis **pas** digne de vivre.  
 Cain: 'Wickedly, I have sinned too much; I am not fit to live.'  
 (Mystère du viel testament, ca. 1480)

Eckardt (2007: 235) takes a similar tactic to Schwenter, but connects it with the information-structure concept of *focus*, calling this stage "emphatic focus." In French, a predicate or argument that is in focus must be in the main clause of the sentence (Lambrecht 1994: 223), but in Classical and Modern French

there are many examples of embracing negation in subordinate clauses, such as the following example from the corpus (Désidério Descombes, *La Farce des bossus*, 1623):

14) puisqu'ils **ne** sont **pas** venus, je m'en vay chez le greffier  
 'Since they're not here yet, I'm going to the clerk's office'

If this is not presupposition denial, what is it ? In Geurts' (1998) terms it is *descriptive negation*, the simple statement of a negative predicate without any presupposition required ; in this study I will call it *predicate negation*. Croft (2000 : 130) describes the shift from presupposition denial to predicate negation with the term *metanalysis*: “There is a high degree of correlation between negation and emphasis. ... There is a swapping of the two functions: the negative function is attributed to the emphatic element, while the emphatic function is attributed to the nonlinguistic context.”



Synthesizing the work described above, we arrive at this picture of the evolution of French negation :

Semantic Stage	Syntactic stage
Literal reference	Transitive sentence: “I ate one bite of the porridge”
	Negative transitive sentence:
Scalar denial	“I didn't eat one bite of that porridge.”
	Hyperbolic negative transitive sentence (non-transparent):
Presupposition denial	<i>Non ego nunc emam vitam tuam vitiosa nuce.</i>
	Fixed embracing construction: <i>Je ne suis pas digne de vivre.</i>
Descriptive negation	Reduced postverbal construction <i>Je suis pas doué en dessin.</i>
	predicate

Table 2: Semantic and syntactic stages of the evolution of negation.

## 4 The study

The main hypothesis for this study is that the embracing negation constructions evolved semantically and pragmatically from literal reference through scalar denial, emphatic denial and presupposition denial, to end with predicate negation.

I compiled a half-million-word corpus of French theatrical texts from the twelfth through twentieth centuries in order to investigate Jespersen's Cycle and related phenomena. Corpus work can be very difficult. Ideally, studies are based on a representative sample of the texts in the language (Lee 1999; Grieve-Smith 2006), because without a representative sample it is impossible to generalize the results to the language as a whole. Language use varies widely, and there is a vast literature discussing variation according to social class (e.g. Labov 1966), region (Chambers and Trudgill 1988), age (Chambers 2003), gender (Tannen 1990), register and genre (Biber 1988). Without controlling for this variation, there is no way to know whether a difference in values for two different time periods is evidence of change over time or some other kind of variation.

It is especially important to account for variation according to register and genre. In addition to the physical and cognitive limitations that result from particular situations such as real-time interaction, various genres and registers have their own sets of norms that control what forms of language are acceptable. Forms from different registers or genres are not directly comparable, and showing two different forms (or frequencies) from different genres and times does not prove that there was change over time. Valli (1984 : 142) criticized a historical study by Ashby (1981) for confusing normative and non-normative styles from different periods.

Another difficulty with studying the language of the past is that while there is widespread agreement (Labov 1972, Ochs 1979) that informal, spontaneous conversation is more directly affected than other registers and genres by the kinds of changes we are interested in, and thus a more appropriate object for study, records of such conversation are very rare for periods before the invention of audio tape.

I have chosen to restrict the corpus to theatrical texts, because they are the closest genre to spontaneous conversation that is available throughout the period under study. In a study of the evolution of the opposition between *be* and *have* in English past tense forms, Rydén (1991) writes, "the comedies largely revealed themselves as more genuine reflexes of non-conservative language ...". They usually consist of conversation, and are designed to represent spontaneous interaction. Often times the lines were even composed extemporaneously and then written down later from memory (Degaine 1992).

Unfortunately, because they are subject to multiple revisions to bring them in line with contemporary language norms and audience expectations, theatrical texts are subject to top-down pressures (Caillet 1857, Degaine 1992) as well as the bottom-up changes that we are trying to investigate. This requires that we pay special attention to potential top-down pressures and limits the validity of generalizing the results. The most we can say is that they can sometimes be generalized to theatrical norms, but even then with extreme caution

Regional variation poses certain problems for this study. For example, only ten plays written before 1300 are known to exist now. Of these, four are written in Picard, two in Walloon, two in Parisian, one in Norman and one in Limousin. Since there are many more differences between *langue d'oc* and *langue d'oïl* varieties than within each group, I have chosen to exclude the one *langue d'oc* play, the *Sponsus* of Limoges, from the study but to use plays from any *langue d'oïl* variety written before 1500. The course of history has instituted its own bias; we do not know how many plays were performed but not written down, or written down but not preserved.

In the fourteenth century, there is one mystery play and forty miracle plays that have been preserved. The texts of all the miracle plays and their estimated dates of creation are available from the Laboratoire de Français Ancien at the University of Ottawa. I compiled a list and took random samples from each quarter century. Since the first play in the collection was composed no earlier than 1339, I sampled a fourth play from the period 1325-1349 to ensure that I had at least five hundred tokens of sentence negation from that century.

For the fifteenth and early sixteenth centuries, I performed an extensive web search for authoritative lists of plays written during those periods, but was not able to find anything complete. Instead, I compiled a list from a number of existing lists found in various books and web pages. I searched for full-text and scanned versions of all of these plays, by title and author, where known. I used almost all of the plays that were available in full-text formats. Because the full-text websites contain more of the longer mystery and miracle plays but fewer of the farces, soties and moralities, and almost no Renaissance comedies or tragedies, I supplemented them with scans of printed plays that were available online. This period is probably the most vulnerable to sampling bias, because in order to be usable for this study, they had to have been preserved, reprinted in modern type, scanned, converted to full text, and made available to the public. Each of those steps requires time, effort and money, and each allows various people to exercise choice in selecting or rejecting particular plays.

For the period between 1575 and 1949, I selected one play at random from the ARTFL/Frangent database for every twenty-five years. The ARTFL database, compiled in the 1950s, 60s and 70s for the *Trésor de la langue française* dictionary, is a great resource, but it is not a representative sample itself. For example, the period 1650-1674 contains 59 plays by only six authors, while the period 1750-1774 contains 39 plays by twenty authors. I did not have information about the distribution of subgenres during this period (comedy, tragedy, tragicomedy, melodrama), so I did not attempt to balance for subgenre.

Almost all of these plays were available in full text form from Gallica, the website of the Bibliothèque Nationale de France, but if one was not, I chose another play at random from the same time period. The results from three of these plays were discarded because they were found to be unrepresentative of the corpus for various reasons. One play discarded from the 1700-1724 period was replaced with another play chosen at random, and the plays discarded from the 1575-1599 and 1600-1624 periods were replaced with plays from outside the ARTFL database chosen for their subgenre membership.

The earliest play in French that has been preserved in more than small fragments, the *Ordo representacionis ade*, dates from 1160. It does not include any examples of *ne ... pas*, *ne ... point* and *ne ... mie* used for either literal reference or scalar denial. As noted above, Schweighäuser (1852: 224) writes, "Let us note in any case that this change in the meaning of the word *pas* predates the most ancient relics of the language." For this study, I therefore focused on presupposition denial, predicate negation, and to some extent proposition denial. I limited the study to embracing constructions with canonical sentence structure, excluding questions, commands, clauses where the particle appears before the verb, and clauses where the subject and verb were inverted, because all of these strategies can be used to add further "emphasis" to a negation.

I tagged each instance of declarative sentence negation based on Geurts' (1998) categories of negation. For many of the tokens of negation, there were unambiguous cues such as the overt statement of a denied proposition or position in a subordinate clause. Many other tokens did not have such cues, and therefore were ambiguous between two categories. In these cases I marked both categories to indicate that ambiguity.

If the hypothesis is true, I would expect to find a period where there were very few instances of embracing negations that were unambiguously tagged as *predicate negation*, followed by a period that was more mixed.

## 5 Results

The corpus shows a pattern consistent with the hypothesis of a change of *ne ... pas* from expressing presupposition denial to expressing predicate negation. First, here are the raw occurrence totals of each combination of syntactic construction and pragmatic function in each century of the corpus.



	Type	Predicate negation	Predicate negation + Prop. denial	Prop. denial	Predicate negation + Presupp. denial	Prop. denial + Presupp. denial	Presupp. denial	Total
1100	alone	35	1	1	16		1	54
1100	pas			6	2		7	15
1200	alone	109	1	3	148	1	27	289
1200	pas		1		18		20	39
1200	mie			1	23		39	63
1200	point				4		10	14
1300	alone	150		1	132		13	296
1300	pas	1		1	19		54	75
1300	mie				6		22	28
1300	point	1		1	5		22	29
1400	alone	167		3	132		40	342
1400	pas	2			20		92	114
1400	mie			1	2		7	10
1400	point			1	9		65	75
1500	alone	458		1	302	1	110	872
1500	pas	5			26		167	198
1500	mie				1		13	14
1500	point	5		1	40		111	157
1600	alone	165			128		23	316
1600	pas	12			91		108	211
1600	point	11			82	1	106	200
1700	alone	58			82		5	145
1700	pas	15		8	153	1	219	396
1700	point	3		2	69	1	133	208
1800	alone	32		1	59		7	99
1800	pas	77		35	282	2	366	762
1800	point	2		1	16		18	37
1900	alone	3			27		3	33
1900	pas	13		12	226	3	194	448
1900	point	1			4		5	10

Table 3: Negation Semantics/Pragmatics by Type

Note how few of the negations were tagged as expressing proposition denial, even ambiguously. After the twelfth century they never make up more than five percent of the negations in a century. It is not likely that proposition denial played a very direct role in the evolution of embracing negation constructions. Here are some examples of these constructions in their various roles in the corpus: first, *ne* alone in a context expressing predicate negation, then in an ambiguous context, and finally in a context unambiguously expressing proposition denial:

- 15) *Ha! vierge, bien a le cuer nice / Qui ne se mett a vous servir*  
O Virgin, many have mean hearts that cannot bring themselves to serve you.  
(Miracle de Nostre Dame d'un evesque, 1348)
- 16) *Et les iex m'enlumine / Que ne m'en voi conduire.*  
And light up my eyes, because I can't see my own way.  
(Rutebeuf, Miracle de Théophile, ca. 1260)
- 17) *Tu as li bien, n'en sez joir*  
'You have something good, but you don't know how to enjoy it.'  
(Ordo Representacionis Ade, ca. 1160)

Next, *ne ... pas* in the same three contexts:

- 18) *puisqu'ils ne sont pas venus, je m'en vay chez le greffier*  
'Since they're not here yet, I'm going to the clerk's office'  
(Descombes, Farce des bossus, 1623)
- 19) *J'ay trop peché villainement; je ne suis pas digne de vivre.*  
'Wickedly, I have sinned too much; I am not fit to live.'  
(Mystère du viel testament, ca. 1480)
- 20) *Patience, patience; elle ne sera pas toujours jeune.*  
'Patience, patience; she will not be young forever.'  
(Regnard, Le retour imprévu, 1700)

Now let us look at a few charts that highlight important aspects of the data. The following chart shows the pragmatic functions that *ne ... pas* fulfilled over time.

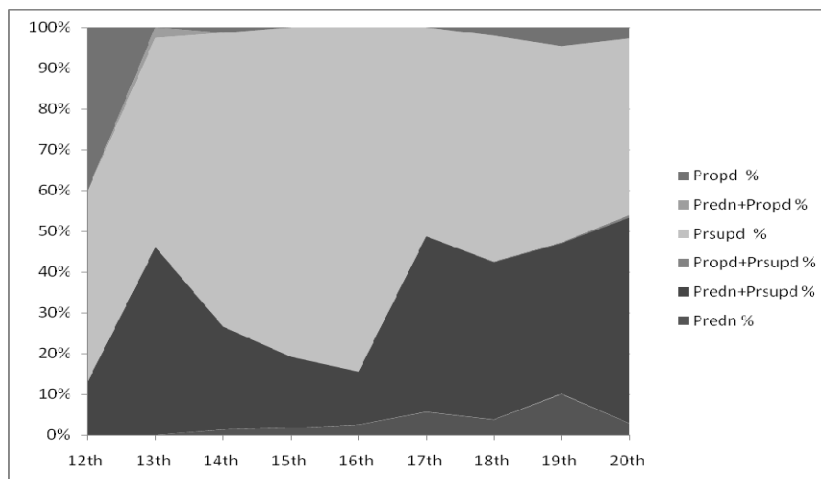


Figure 1. Functions fulfilled by *ne ... pas* in declarative sentences over time.

In the twelfth, fourteenth, fifteenth and sixteenth centuries, *ne ... pas* is predominantly used to express unambiguous presupposition denial. Beginning in the seventeenth century there is a large increase in its use in ambiguous contexts, and some instances where it expresses unambiguous proposition denial. The thirteenth century does not fit the expected pattern, but we will see later that this is a reflection of an overall increase in ambiguous negations, not specifically related to *ne ... pas*.

Second, let us look at the data from the other point of view : what syntactic constructions were used to express a given pragmatic function The next chart shows the constructions used to unambiguously express predicate negation :

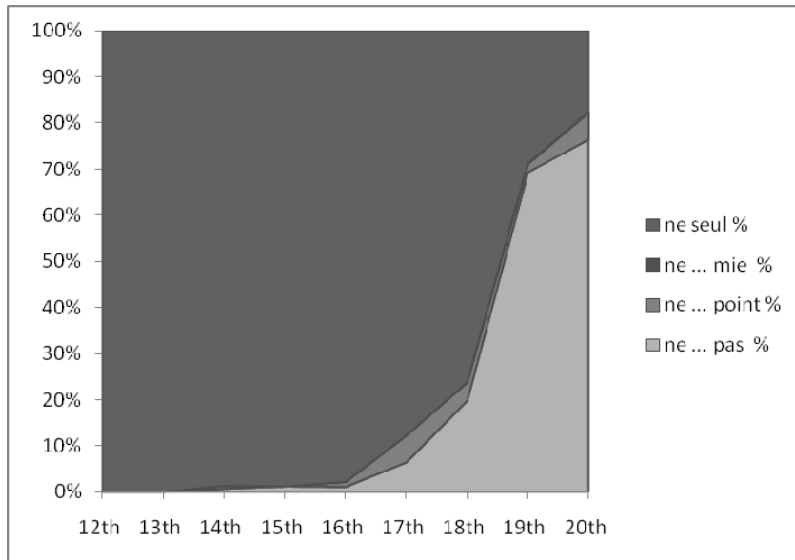


Figure 2. Syntactic expression of unambiguous predicate negations in declarative sentences, over time.

In unambiguous contexts, predicate negations are overwhelmingly expressed with preverbal *ne* alone until the beginning of the seventeenth century, when playwrights begin to express them with *ne ... pas*. A small number are expressed with *ne ... point*, but this is never more than ten percent. Next, we will look at the contexts that are ambiguous between predicate negation and presupposition denial.

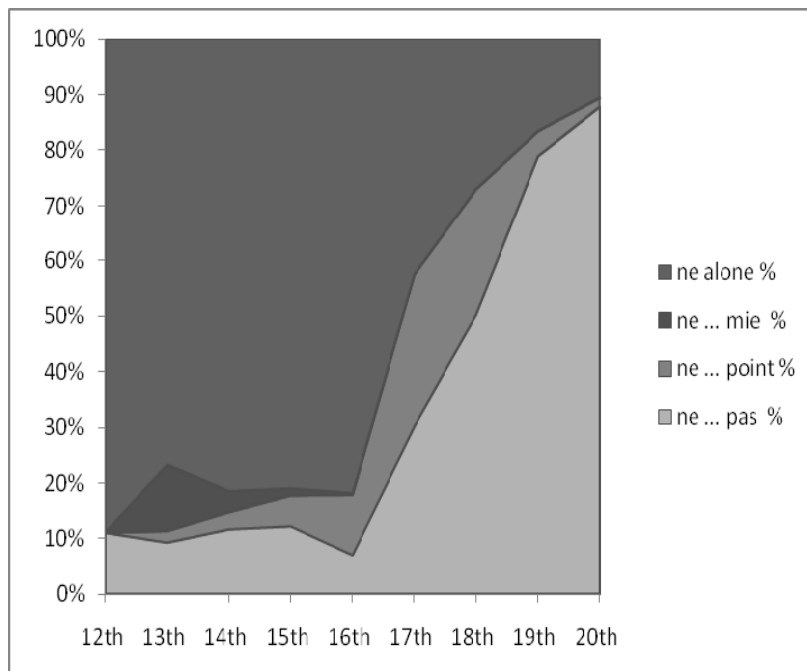


Figure 3. Syntactic expression in contexts that are ambiguous between predicate negation and presupposition denial, over time.

With the sentences that are ambiguous between predicate negation and presupposition denial interpretations, before 1600 there is always a small minority of tokens that are expressed with *ne ... pas*, *ne ... point* and *ne ... mie*. Beginning in the seventeenth century, there is a large increase in the use of *ne ... pas* and *ne ... point* for these functions, much more dramatic than the seventeenth-century increase for the unambiguous predicate negations. Note also that there is no thirteenth-century spike in the use of *ne ... pas* corresponding to the spike in Figure 1; that was simply an increase in the overall instance of ambiguous sentences.

As I discussed in Section 3, Traugott (1989) argues that semantic change proceeds through ambiguity and polysemy. It is thus not surprising that the increase in use of *ne ... pas* and *ne ... point* would appear in ambiguous contexts first.

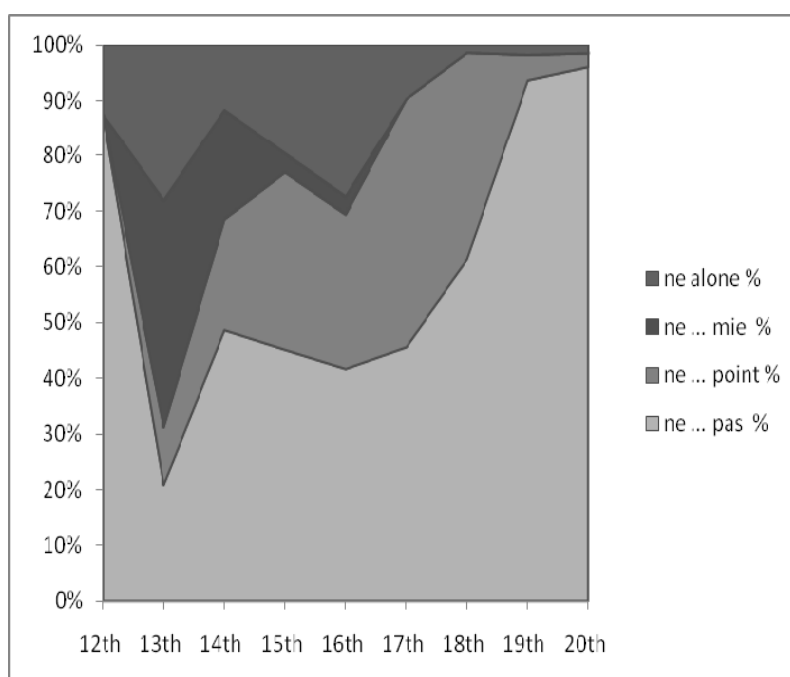


Figure 3. Syntactic realization of declarative sentences in contexts that unambiguously represent presupposition denial, over time.

This chart shows *ne ... pas* and *ne ... point* gaining in the unambiguous representation of presupposition denial at the expense of *ne ... mie* in the fourteenth and fifteenth centuries, and *ne ... pas* taking over usage from *ne ... point* in the eighteenth and nineteenth centuries. It is important to note that up through the sixteenth century, a significant number of presupposition denials were expressed using a variety of constructions, including preverbal *non* alone, *non ... pas*, various inversion constructions, and topicalized constructions of the form *pas ne*, *point ne* and *mie ne*. Most of these seem to have shifted to *ne ... point*.

## 6 Conclusion

Before the seventeenth century, predicate negations and ambiguous sentences in this corpus were overwhelmingly expressed by preverbal *ne* alone, while unambiguous presupposition denials were expressed with one of the embracing negation constructions. Beginning in the seventeenth century, writers began to use *ne ... pas* more often, first in the ambiguous sentences and then in the unambiguous predicate negations. Based on this, we can estimate that the metanalysis of *ne ... pas* from presupposition denial to predicate negation took place some time around 1600 for theatrical texts. The two constructions *ne ... mie* and *ne ... pas* may have been considered “the same” as early as the fourteenth century, although this data may be clouded by dialect mixtures.

The embracing construction *ne ... point* seems to have been considered “the same” as *ne ... pas* beginning in the eighteenth century. It began to be used more and more frequently in contexts where *ne ... point* had been common. This is consistent with the theories of Traugott (1989), Eckardt (2007), Kiparsky and Condoravdi (2006) and Schwenter (2006) that postulate an “emphatic” stage of presupposition denial.

This study can be confirmed and extended by examining the interpretations of other readers of the texts, and by consulting a larger corpus, including texts from other genres.

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