Sentential Negation in Northeastern Gallo-Romance Dialects: Insights from the *Atlas Linguistique de la France*

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Abstract

This paper argues that data from the *Atlas Linguistique de la France* (ALF, Edmont & Gilliéron 1910) can shed light on the fine-grained syntax of sentential negation in the Oïl dialects spoken in North Eastern France, Belgium and Switzerland. Recordings from Brunot & Bruneau (1912) of the patois of the Ardennes reveal a much larger variety of negative structures than those found in (Standard) French: in addition to *ne...pas*, *ne* can be followed by secondary negations *mie*, *pont* or even appear alone. Although the dialects under study are highly endangered, I show how we can use syntactic data ‘hidden’ in the ALF to study their syntactic patterns. I present a quantitative study of variation in the expression of sentential negation in translations of the 22 negative stimuli in the ALF at 150 points in France, Belgium and Switzerland (N=2989). I show that the *pont* form is significantly more frequent in negative constructions with ‘weak NPs’ (*de phrases*) and that there is a significant correlation between dropping of secondary negation and the ability of the secondary negator *mie* to be realized as an enclitic -m (see also Bourcelot 1966). This study supports Dagnac (2018)’s conclusion that the ALF is an invaluable tool for the study of syntactic microvariation in the endangered languages of France.

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1 Introduction

This paper presents some new results exploring the fine-grained patterns of syntactic microvariation found in the endangered Gallo-Romance languages spoken in France. It presents another application of the methodology of the SyMiLa project [https://blogs.univ-tlse2.fr/symila/], one of whose aims is to exploit understudied syntactic data in the Atlas Linguistique de la France (ALF) [Edmont and Gilliéron, 1910] for the construction of formal linguistic theory (see [Dagnac, 2018] for a description of this research program). The main proposal in this paper is that data from the ALF can shed light on detailed morpho-syntactic properties of sentential negation in the Oïl dialects spoken in the northeast of France which have not yet been described.

In modern spoken French (for example, in the Parisian dialect), sentential negation is expressed using a negative adverb *pas* which can optionally co-occur with a preverbal particle *ne* (1).

(1) Je (ne) t’ai pas vu.
   I ne you.have not seen
   ‘I didn’t see you.’

Given that negation systems vary significantly across the Oïl dialects [1], we would like to know how the negation systems of the dialects spoken in the northeast of France (along the border of France and Belgium) fit into this picture. As with most of the Oïl dialects, there has been very little study of the highly endangered languages spoken in this area, particularly of their morpho-syntactic patterns (although see [Tuaillon, 1975; Dagnac, 2018]). Some of the best data that we have for this area come from [Brunot and Bruneau, 1912]’s 166 recordings of the *patois* spoken in the Ardennes mountains, which were made in June-July 1912 in the context of the Archives de la parole project. This study was the first French dialectological study to use both phonograph and the automobile, and it produced both audio recordings [2] and phonetic and French transcriptions such as the one shown in Figure 1.

The speaker in Figure 1 tells a story about how she was smuggling goods across the Belgian border and was stopped by customs guards. In the course of this short passage she uses negative sentences with four realisations of sentential negation, shown in (2). (2-a) is the French model with *ne...pas*; (2-b) shows negation being expressed with the secondary negative adverb *mie*; in (2-c) the secondary negation is *pont*; and (2-d) shows no secondary negation at all.

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2Available at [https://gallica.bnf.fr/html/und/enregistrements-sonores/archives-de-la-parole-ferdinand-brunot-1911-1914]
Figure 1 – Transcriptions of Fâcheuses aventures avec douaniers et garde-forestiers.

(2) a. il y a longtemps que je ne t’ai pas vu
   ‘It has been a long time that I haven’t seen you.’

b. tu n’es mie changée
   ‘You haven’t changed’

c. je n’ai pont de mémoire
   ‘I don’t have any memory’

d. je ne m’en rappelle
   ‘I don’t remember’

(2) shows that, in contrast to Parisian French, where all the negations would be expressed by *ne...pas* or just *pas*, sentential negation in northeastern dialects is both complex and involves variation. This variation give rise to a number of questions for a couple different areas of Romance linguistics: Firstly, from the perspective of formal syntactic typology, we would like to know which syntactic structures should be associated with (2-a)-(2-d) and to what extent those structures coincide with those found in other Romance languages/dialects. Secondly, from the perspective of language variation and change, we would like to know which linguistic and/or social factors condition the use of these different structures; in other words, what makes a speaker choose to use one of the structures in (2) over the others?

When we are studying languages with a robust number of speakers, we usually go about answering these questions by doing an in-depth grammaticality or felicity judgment study with speakers that have the relevant grammatical systems and/or looking at the distribution of these forms in a large sociolinguistically annotated corpus. Unfortunately, these avenues of inquiry are not possible for the current variety under study. The Gallo-Romance languages are highly endangered and access to negative speakers is currently very limited, particularly in the north of France. Furthermore, as far as I am aware, there are practically no usable corpora of naturalistic speech from this area; even Brunot and Bruneau’s (1912) set of recordings is not very large and, at the time of writing, is not easily downloadable or
transcribed. This paper argues that we can address these methodological challenges and provide at least partial answers to our syntactic and variation questions through using data that is ‘hidden’ in the Atlas Linguistique de la France (Edmont and Gilliéron 1910). This article therefore provides further evidence of the potential of the ALF to contribute to research in formal syntax and language variation and change, and therefore of the importance of the SyMiLa project.

This article is laid out as follows: in section 2 I discuss the potential of treating the ALF as an oral corpus and the challenges associated with doing so. Then in section 3 I give a quantitative study of secondary negation in northeastern dialects. I first present some areal properties of the negation systems, and then zoom in on a case study of the variable syntax of negation in a variety spoken in and around the Lorraine region. Finally, section 4 concludes with a discussion of the perspectives for this line of research for future discoveries concerning the syntactic patterns of the endangered and extinct Gallo-Romance dialects and languages.

2 The ALF as an oral corpus

From 1897-1901, Edmond Edmont, under the supervision of Jules Gilliéron, travelled around France interviewing dialect speakers. Edmont asked speakers in 639 locations all over France (and parts of Belgium, Switzerland and Italy) to translate thousands of French words into their local dialects (see Brun-Trigaud et al. 2005, for more about the ALF). The translations, transcribed in Rousselot-Gilliéron phonetic notation, are represented on maps where the translations are geographically situated at the location of the speaker(s) on the map. The entire atlas is available for browsing at http://lig-tdcge.imag.fr/cartodialect4/.

Edmont presented the speakers with a word of a sentence, which we will call a stimulus, and then recorded the response. Rather than trying to painstakingly attempt to get the translation that corresponded most closely to the French sentence, Edmont recorded what the speaker produced in the moment, i.e. “l’inspiration, l’expression première de l’interrogé, une traduction de premier jet” (Notice de l’ALF, p.7). The ALF is most famous for its maps of individual lexical items, and, indeed, the vast majority of the dialectological work using this atlas focuses on lexical patterns and phonological patterns observed from pronunciations of lexical items (see for example Brun-Trigaud et al. 2005; Goebel 2003). However, Edmont also asked speakers to translate 180 full sentences. Thus, as observed by Dagnac (2018), these 180 sentences hold great potential for syntactic data.

Of course, only a small portion of these 180 sentential stimuli are negative: 22 to be exact. These French stimuli are shown in Table 1 along with the maps on which the French negative expressions occur. Since it is not feasible to display whole translated sentences for 639 points on a single map, many of the 180 sentences were cut up into smaller expressions
that were the topic of their own maps. In the context of the SyMiLa project, the full 180 sentential stimuli were painstakingly reconstructed by Guylaine Brun-Trigaud.

<table>
<thead>
<tr>
<th>Sentential stimulus</th>
<th>Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quand il fait du vent, le roseau plie, mais ne rompt pas.</td>
<td>0896</td>
</tr>
<tr>
<td>Si nous ne mangeons pas nos prunes, elles se moisiront bientôt.</td>
<td>0806</td>
</tr>
<tr>
<td>On l’a attaché à un poteau pour qu’il ne puisse pas courir dans le pré.</td>
<td>0896</td>
</tr>
<tr>
<td>J’ai cru qu’ils ne viendront pas.</td>
<td>0897</td>
</tr>
<tr>
<td>Elle n’est plus entière. Je ne pouvais ni avancer ni reculer.</td>
<td>0901</td>
</tr>
<tr>
<td>Deux minutes après, il ne bougeait plus et il commençait à être raide.</td>
<td>0900</td>
</tr>
<tr>
<td>Il fait si chaud, par ce temps, on ne peut pas dormir.</td>
<td>1093</td>
</tr>
<tr>
<td>Dans ce pays, il n’y a pas de source. Rien que des puits.</td>
<td>0089</td>
</tr>
<tr>
<td>Je ne peux pas perdre, ça c’est sûr. Il faudrait être aveugle ou fou pour ne pas trouver ça laid.</td>
<td>1082</td>
</tr>
<tr>
<td>Celui ci, il est bon, mais il ne vaut pas le mien. Ils feront ce qu’ils voudront, moi je ne les aide pas.</td>
<td>1352</td>
</tr>
<tr>
<td>Tu me trouves vieilli. Tu ne vois donc pas que tu es aussi vieux. Pourquoi ne vous mariez vous pas? Vous trouverez bien quelqu’un qui vous ira.</td>
<td>0012</td>
</tr>
<tr>
<td>Nous ne le revismes plus.</td>
<td>1409</td>
</tr>
<tr>
<td>Je n’ai pas osé le lui dire. Le blé est mûr, mais l’avoine n’est pas encore mûre.</td>
<td>0899</td>
</tr>
<tr>
<td>N’aie pas peur.</td>
<td>0101</td>
</tr>
<tr>
<td>Des pommes, nous n’en aurons guère.</td>
<td>0673</td>
</tr>
<tr>
<td>Personne ne me croit.</td>
<td>1665</td>
</tr>
</tbody>
</table>

Table 1 – Negative stimuli in the Atlas Linguistique de la France.

With 22 negative stimuli and 639 points, there could be, in principle, up to 14 058 negative productions in the ALF. In reality, there are significantly fewer negative translations. This is because a fair number of stimuli, such as Personne ne me croit, Je n’ai pas osé le lui dire and N’aie pas peur, are not translated by all speakers. Additionally, some stimuli are not translated as negative by some speakers. For example, this is the case of Elle n’est plus entière ‘She/it was no longer whole’, which was translated as elle est cassée ‘she/it was broken’ by speaker 133 (Courcelles-sur-Blaise).

3 Secondary negation in North Eastern France

Because this area of France is particularly understudied, in this paper, I will focus on what the negative stimuli in the ALF can tell us about the form and distribution of secondary negation in northeastern France and bordering Belgium and Switzerland. In particular, we
will look at the negative productions at points numbered 1-199, which cover French territory in Lorraine Romane, Champagne, Bourgogne and Alsace. This dataset is composed of data from 150 points and contains 2989 negative productions. The ALF points covered in this study are shown on the map in Figure 2.

Figure 2 – Area covered by the present study

Figure 3 shows a representation of the entire dataset according to the shape of the secondary negation. It was created by overlaying transparent symbols representing the secondary negations in the 22 negative stimuli, or as many as were translated at the particular point.

From this map, we can see that there is a large amount of variation both within a single geographical area and across geographical areas, and that different secondary negations are clustered in different areas. For example, although the French form *pas* appears scattered throughout the whole dataset, undoubtedly due to the fact that the French stimuli feature *pas*, *pas* is the dominant variant in the southern part of the area, well represented in the center of France and the west of Switzerland. The southeast also features some forms like *pe* and the reduced form *p*. The dominant variant in Belgium is *nen*, and large portions of the north eastern French part of the relevant area favour *mie*.

Unfortunately, a corpus of dialect translations is not ideal for doing either formal morpho-syntax or sociolinguistics (see [Cornips] (2002) for more discussion). Corpus linguistics has not traditionally been the preferred methodology for most theoretical syntacticians, since the lack of judgements of ungrammaticality is problematic for precisely identifying exactly which set of expressions of the language should be analyzed. Likewise, the complicated syntactic structures that often interest syntacticians tend to be rare in natural speech; therefore, in order to get enough data to study syntax, we often have to pool data from

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3: The maps in this paper were created using the software QGIS (QGIS Development Team (2015). QGIS Geographic Information System. Open Source Geospatial Foundation Project. [http://qgis.osgeo.org](http://qgis.osgeo.org).
different speakers in the corpus, which could be problematic if these different speakers have different internal grammars (Barbiers 2009). In the ALF, speakers of different patois from different regions clearly have different grammars, so the question of how to meaningfully group speakers together to study them arises. In order to address these challenges, I propose to group together speakers who behave the same way with respect to the grammatical phenomenon that is being studied. In this case, we will group together speakers whose grammars coincide in the expression of negation. More specifically, I will present a detailed case study of grammars of speakers who use only mie as secondary negation. The ALF points with mie-only speakers are shown in the map in Figure 4.

Dialect atlases are also challenging sources of data for sociolinguistic analysis. Firstly, rather than the collection of naturalistic speech, the ALF corpus was obtained through translation tasks. Therefore, we expect to see a repetition effect, i.e. the standard construction will be translated literally into the local dialect (Cornips 2002). Secondly, although the Notice of the ALF provides some social information about the speakers consulted at each point, much of this information is opaque. For example, some points in the ALF represent data from multiple speakers with different sociolinguistic profiles: point 132 (Poissons, Haute-Marne), for instance, represents translations from a 72 year old vieillard and his 25 year old seamstress grand-daughter, people who have very different sociolinguistic profiles (Chambers and Trudgill 1998). Likewise, some of the information, such as occupation, is incomplete for some speakers. In order to address these challenges, I propose to analyze only data produced by single speakers, for whom we have age, gender and geographical location information. From the dataset above, this corresponds to points associated with 122 single speakers yielding 2434 negative productions. Furthermore, we will take the repetition effect into account when interpreting the data. In particular, since all the stimuli are in Parisian French, the presence of a repetition effect should make the translations closer
to French. In other words, in the ALF data, we should find,

1. Higher rate of *ne* preservation than in naturalistic speech.

2. Higher rate of *pas* use (vs *mie*) than in naturalistic speech.

3. Higher rate of use of secondary negation than in naturalistic speech.

Since we do have recordings by Brunot and Bruneau (1912) it should be possible to check how the ALF lines up with the language in them, if these recordings ever become more accessible for detailed research.

### 3.1 Areal properties

Before diving into the detailed study of *mie* grammars, we should take a moment to observe some grammatical properties of the whole area. First, as shown Table 2, we see that, in this part of France, the use of a secondary negation is almost excluded when the sentence contains a negative indefinite.

<table>
<thead>
<tr>
<th></th>
<th>no negation</th>
<th>mie</th>
<th>nen</th>
<th>p</th>
<th>pas</th>
<th>pe</th>
<th>po(i)nt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No negative indefinite</td>
<td>134</td>
<td>476</td>
<td>212</td>
<td>42</td>
<td>1079</td>
<td>118</td>
<td>222</td>
<td>2283</td>
</tr>
<tr>
<td>Negative indefinite</td>
<td>696</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>706</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>830</strong></td>
<td><strong>476</strong></td>
<td><strong>212</strong></td>
<td><strong>42</strong></td>
<td><strong>1089</strong></td>
<td><strong>118</strong></td>
<td><strong>222</strong></td>
<td><strong>2989</strong></td>
</tr>
</tbody>
</table>

*Table 2 – Negative concord in the ALF (North East)*
In other words, negative concord is limited to a couple of examples of \textit{pas . . . ni . . . ni} ‘neither . . . nor’, shown in Figure 5, and a few examples of \textit{pa më}4 ‘no more’. These results therefore suggest that negative concord is not a robust grammatical phenomenon in northeastern Gallo-Romance dialects, or at least not as robust as it is on Occitan territory.

![Figure 5](image)

Figure 5 – Submap of Je ne pouvais ni avancer ni reculer.

Another source of variation in postverbal negation markers is the sentence with the \textit{de} indefinite: \textit{Dans ce pays, il n’y a pas de source} ‘In this land, there are no springs.’ As shown in Figure 7, the marker \textit{point} is favoured across most of the territory, even in areas where the principal marker is \textit{mie}. This result is perhaps not particularly surprising, given that many studies of Old/Middle French (Parisian dialect) have suggested that \textit{point} was favoured in partitive constructions (Marchello-Nizia [1997], Martineau [2009], and Bruneau [1949] reports that Wallon \textit{point} is limited to partitive constructions. Although \textit{il n’y a pas de source} is not technically a partitive construction, it is possible that its association with the \textit{de} phrase causes it to favour the more quantificational \textit{point} (see also Pollock [1989] for a version of this claim for French).

We can oppose the map of the \textit{de} phrase sentence (Figure 7) with one of all the other sentences, shown in Figure 7.

Some speakers in this area of the ALF have the same form for both sentential negation and \textit{de} phrase quantification: for example, the speaker at point 3 uses \textit{pas} for all negative sentences. Likewise, speaker 191 uses \textit{nen} for everything, and speaker 169 does the same thing with \textit{point}. Some speakers with variable systems use one of the variants for the \textit{de} phrase sentence: for example, 109 varies between \textit{pas} and \textit{point} for sentential negation, while using \textit{point} for the \textit{de} phrase sentence. Finally, many speakers have a form that is distinct from any secondary negation for the \textit{de} phrase sentence: The speaker at point 1 uses \textit{pas} in other negative sentences, but \textit{point} in the \textit{de} phrase sentence; 77 uses \textit{mie} for negative sentences and \textit{point} for \textit{de} phrase; 49 varies between \textit{mie} and \textit{pas}, but uses \textit{point}.

\footnote{In fact, it is not clear from the limited data that we have whether or not the expression \textit{pa më} in Switzerland (eg. points 60, 70) is actually two separate words \textit{pa} (negation) and \textit{më} ‘no more’ or whether it is a single word.}
with the negative *de* phrase; and 50 uses *pas* for negative sentences, but *mie* with the *de* phrase. This suggests that the structure of negation in the sentence with the *de* phrase distinct from other occurrences of secondary negation in the corpus. Because it behaves differently from other negative sentences in the corpus, we exclude the stimulus with the *de* phrase from our case study on *mie* grammars.
3.2 Case study: mie grammars

In the last portion of this paper, we will take a closer ‘vertical’ look at one more or less coherent group of speakers: those who only use mie. There are 19 speakers like this in our ALF subcorpus. They are 4 women and 15 men, with ages ranging from 20-70. One speaker is from Belgium, two are from Champagne, one is from Alsace and the remainder (15) are from Lorraine (recall Figure 4). Speakers in this area are almost categorical users of the preverbal ne (7/281), which suggests that ne still has negative semantics in this dialect (see Godard 2004). I therefore propose that, similar to Italian non, it occupies a negative phrase between CP and TP which, following Zanuttini (1997), I call NegP₁.

In order to investigate the syntax of the secondary negation mie, we will take advantage of the observation by researchers using the cartographic approach (Cinque 1996, 1999; Zanuttini 1997, among others) that we can use ordering with respect to adverbs to diagnose the syntactic position of secondary negation markers. Research in this tradition has shown that there exist rigid ordering relations between adverbs within the languages of the Romance family. For example, as discussed in (Zanuttini 1997, 64), the Italian adverb gia ‘already’ obligatorily precedes the adverb piu ‘no more’ (3-a) and, when we look at the neighbouring Romance language French, we see exactly the same ordering between the cognates déjà and plus (3-b).

(3) a. Non hanno ricevuto gia piu nulla. (Italian) ‘Already they weren’t receiving anything anymore.’ (*piu > gia)
   b. Ils n’ont déjà plus rien reçu. (French) ‘Already they weren’t receiving anything anymore.’ (*plus > déjà)

Using adverb ordering as a diagnostic, Cinque and Zanuttini argue in favour of the existence of a syntactic position for a higher postverbal negation, which Zanuttini (1997) calls NegP₂. This position is occupied by negative expressions that precede gia/déjà or ancora/encore ‘yet’ and their cognates. As shown in (4)-(6), this class includes Italian mica, Piedmontese pa and French pas.

(4) a. Non hanno mica gia chiamato Italian
   b. Ils n’ont pas déjà appelé French ‘They haven’t already called’ (*gia/déjà > mica/pas) (Cinque 1999, 5)

(5) A l’è pa gia andait a ca’. Piedmontese ‘He hasn’t already gone home.’ (*gia > pa) (Zanuttini 1997, 70)

(6) a. Non l’ho ancora letto. Italian
   b. Je ne l’ai pas encore lu. French ‘I have not read it yet.’ (*encore/ancora > mica/pas) (Cinque 1999, 9)
Zanuttini (1997) argues in favour of a second postverbal negation position, which she calls \textit{NegP}_3, which is occupied by expressions that follow \textit{già/dèjà} or \textit{ancora/encore} and their cognates. As shown in (7), this class includes Piedmontese \textit{nen}, among other elements.

\begin{align*}
\text{(7)} & \quad \text{a. } *A \ l'\text{\`e} \ \text{nen} \ \text{gia andait a ca'}. \\
& \quad \text{Intended: 'He hasn't already gone home.'} \\
& \quad \text{B. } A \ l'\text{\`avia} \ \text{nen} \ \text{salutami cul di la}. \\
& \quad \text{‘Already on that day he had not greeted me.’}
\end{align*}

The ALF contains one stimulus with French \textit{encore}: \textit{Mais l’avoine n’est pas encore mure}. Furthermore, speaker 154 gives a translation of \textit{mais il ne vaut pas le mien} using the adverb \textit{kor}. Therefore, in our corpus, we have 20 productions with negation and the adverb (en)cor(e). The position of \textit{mie} with respect to the adverb in these productions in shown in Table 3 and the relevant region of the map for this sentence is shown in Figure 8.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
\textbf{Position} & \textbf{\# Speakers} \\
\hline
Post adverbial \textit{mie} & 4 \\
Pre adverbial \textit{mie} & 1 \\
Enclitic \textit{-m} & 15 \\
\hline
\end{tabular}
\caption{Position of \textit{mie} in sentences with (en)core}
\end{table}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{map_0899.png}
\caption{Partial submap from the ALF of \textit{-m (en)cor(e) mie} (map 0899)}
\end{figure}

Although non-clitic \textit{mie} largely follows (en)core, suggesting it is in \textit{NegP}_3 position, what is most striking in Table 3 and Figure 8 is the frequent encliticization of \textit{mie}. This pattern has been observed in the \textit{Atlas Linguistique de la Champagne et de la Brie} (ALCB) (Bourcelot and Taverdet, 1989), where it is described as follows: \textit{mie} becomes a reduced clitic \textit{-m} when the finite verb ends in a vowel. We know that \textit{-m} forms a cluster with the finite verb because it is not separated from it by any expression in our data and it even appears
higher than the class of highest postverbal adverbs, which include donc ‘so’ \cite{Cinque1996, Zanuttini1997}. This can be seen in map 1409, which translates the relevant part of *Tu ne vois donc pas que tu es aussi vieux que moi* ‘So don’t you see that you are as old as I am’. As shown in Figure 9, enclitic mie precedes donc; whereas, the non-cliticized version follows it.

![Figure 9 – Partial submap from the ALF of *vois donc pas* (map 1409)](image)

Although it is described as obligatory in the ALCB, encliticization appears to be optional in the ALF, as shown by two productions by speaker 154, both in the context of ako ‘yet’ \cite{8}.

\begin{enumerate}
  \item a. l’awen n’o-m ako moy
      the oat n’is-n’t yet ripe
      ‘The oats are not yet ripe.’
  \item b. mais i ne vaut mie ako l’mey
      but it ne worth not yet the’mine
      ‘But it is not yet worth mine.’
\end{enumerate}

Contrary to what is reported in the ALCB, not only is encliticization optional, but speakers also vary in their rates of cliticization. Table 4 shows that some speakers never cliticize; whereas, for some, the rate of cliticization is as high as 73\%\footnote{Note that the finite verb in some of the productions ends in a consonant, so according to the ALCB, encliticization would not be possible. However, since the description of this process in the ALCB was not completely correct for the ALF data, I have included sentences with verbs with final consonants in the rate of cliticization, to verify this aspect of the ALCB’s proposals.}

Given that, as shown in Table 3, when mie is not cliticized, it mostly follows (en)core, I propose that it is located in Zanuttini’s NegP$_2$, although, for speaker 154, it may vary with the NegP$_2$ position. Thus, the dominant syntactic structure for sentential negation is shown in (9), with mie raising to T in encliticization.

\begin{enumerate}
  \item Proposed syntactic structure for mie
\end{enumerate}

\footnote{Note that the finite verb in some of the productions ends in a consonant, so according to the ALCB, encliticization would not be possible. However, since the description of this process in the ALCB was not completely correct for the ALF data, I have included sentences with verbs with final consonants in the rate of cliticization, to verify this aspect of the ALCB’s proposals.}
Table 4 – Rate of cliticization for *mie* only speakers in the ALF

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Clitic</th>
<th>Non-clitic</th>
<th>% cliticization</th>
</tr>
</thead>
<tbody>
<tr>
<td>68</td>
<td>5</td>
<td>7</td>
<td>42</td>
</tr>
<tr>
<td>76</td>
<td>0</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>78</td>
<td>0</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>85</td>
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<td>0</td>
</tr>
<tr>
<td>86</td>
<td>0</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>89</td>
<td>5</td>
<td>5</td>
<td>50</td>
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<td>182</td>
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<td>5</td>
<td>50</td>
</tr>
</tbody>
</table>

3.2.1 *Mie* drop

Although all the speakers in the ALF use secondary negation at least some of the time, *mie* can optionally be omitted, as shown in the examples in [(10)] from speaker 173.
Examples of variation in the omission (or ‘drop’) of *mie* are shown in Figure 10, where speakers 86 and 78 preserve the *mie*, but speakers 68 and 87 drop it in the translation of the stimulus *on ne peut pas dormir*.

![Figure 10](image)

**Figure 10** – Partial submap from the ALF of *on ne peut pas dormir* (map 1083)

Given that *mie* can sometimes appear as a clitic, it is tempting to attribute ‘*mie* drop’ to the weak phonological status of this clitic -m. However, an argument that the phenomenon is more complicated than surface phonology comes from the fact that the *mie* drop process is, in fact, syntactically restricted in the ALF. In particular, much like the infrequent occurrences of sentences with bare *ne* in French (Muller, 1991; Godard, 2004), the absence of the secondary negator is limited to utterances composed of a modal verb such as *pouvoir* or *savoir* when it selects an infinitive, as shown in Table 5.

<table>
<thead>
<tr>
<th>Clause type</th>
<th>No secondary negation</th>
<th>Mie</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finite monoclausal</td>
<td>0</td>
<td>172</td>
<td>172</td>
</tr>
<tr>
<td>Infinitival monoclausal</td>
<td>0</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Infinitival biclausal</td>
<td>52</td>
<td>19</td>
<td>71</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td><strong>229</strong></td>
<td><strong>281</strong></td>
</tr>
</tbody>
</table>

**Table 5** – *Mie* drop in *mie*-only grammars

The optionality of *mie* drop and its syntactic restriction raises questions about its source (is it structural or social?) and its shape (why do we find this syntactic restriction?). In order to answer these questions, I ran statistical analyses to determine whether factors related to syntactic structure (like the *mie* encliticization rate in Table 4) and social factors (speaker
age and gender in the ALF Notice, and their administrative location) condition the presence or absence of mie. More specifically, I built generalized linear mixed effects models in R, using the lme4 package (Bates et al., 2014), with the ALF point (N= 19) as a random effect and age (continuous), gender (m/f), location (Lorraine/Alsace, Champagne-Ardennees or Belgium) and mie cliticization rate as fixed effects. The results of the statistical analyses (fixed effects) are shown in Table 6. We can see from this table that none of the social factors were significant.

| Factor                | Estimate  | Std. Error | z value | Pr(>|z|) |
|-----------------------|-----------|------------|---------|----------|
| (Intercept)           | 3.452439  | 1.1657060  | 2.962   | 0.00306  ** |
| Degree of cliticization | -0.0336953 | 0.0116585 | -2.890  | 0.00385  ** |
| Gender (male)         | -0.1951873 | 0.6244815 | -0.313  | 0.75462  |
| Age                   | 0.0008208  | 0.0141803  | 0.058   | 0.95384  |
| Location (Champagne)  | 0.1674623  | 0.9785044  | 0.171   | 0.86411  |
| Location (Lorraine)   | 0.1026527  | 0.8127357  | 0.126   | 0.89949  |

Table 6 – Results of statistical analyses (fixed effects). Intercept: Female speaker from Belgium

The main result from Table 6 is that the higher the rate of mie cliticization across all sentences, the less likely speakers will pronounce mie in biclausal sentences. In other words, the more likely a speaker is to cliticize mie onto the finite verb, the more likely they will simply omit it with an infinitive (11).

(11) a. Mais il ne vaut-m le mien. → On ne peut dormir.
    b. Mais il ne vaut mie le mien. → On ne peut-m/mie dormir.

Why do we find speakers favouring mie encliticization favouring mie drop? Since mie drop is limited to a very particular syntactic context (modal verbs selecting infinitival constructions), a reasonable hypothesis is that there is something about the structure of the embedded non-finite clause that is blocking mie cliticization onto the upper finite verb. Sadly the data from the ALF is still very limited, and, given the highly endangered status of the language, it will be very difficult to test different syntactic hypotheses in great detail. Nevertheless, I believe that a possible line of analysis lies in the relationship between the omission of the secondary negation and the phenomenon of clitic climbing. As shown in Figure 11, in contrast to regions covered by the ALF, clitic climbing in infinitival constructions is not generally blocked in northeastern France: in the sentence Il faut les y mener deux fois par jours ‘One must bring them there two times per day’, the order is always faut les rather than les faut, which is an order attested in the center of France.

Thus a possible hypothesis for the relationship between mie cliticization and mie drop would be the following: in biclausal sentences, mie can be generated either in the higher or in lower clause. If it is generated in the lower clause and cliticization does not apply, then
mie surfaces in the lower clause. If, however, it is generated in the lower clause and cliticization applies, then, because of the ban on clitic climbing, mie is simply unpronounced. This being said, this hypothesis is certainly not the only one possible; indeed, as mentioned above, secondary negation pas can sometime drop with modal verbs in dialects that do not have negative enclitization. However, investigating this question further would require new fieldwork studies with the remaining dialect speakers, so I leave it to future work.

4 Conclusion

In this paper, I argued that ‘hidden’ syntactic data from the Atlas Linguistique de la France can be used to investigate the syntactic structure of negation in endangered North Eastern Gallo-Romance dialects. I argued that, for speakers who only use mie, this expression is generated as a lower postverbal negation marker, similar to Piedmontese nen, although for some speakers, it may be variably generated as a higher postverbal negation marker (like Piedmontese pa). In this way, the structure of negation in northeastern French Gallo-Romance dialects shows important similarities to the structure of negation to closely-related Italian dialects like Piedmontese. Finally, statistical analyses of quantitative patterns of mie cliticization and mie drop suggest that there is a relation between these two processes, although pinning down exactly what this relationship would require deeper work with native speaker consultants. Nevertheless, given that the ALF data has revealed a number of complex qualitative and quantitative grammatical patterns, I conclude, following Dagnac (2018), that it is an invaluable tool for the study of the syntax of endangered Romance languages of France.

References


