A SOCIOLINGUISTIC STUDY OF THE REGIONAL FRENCH OF NORMANDY

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I gratefully dedicate this dissertation to everyone who helped.

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ABSTRACT

A SOCIOLINGUISTIC STUDY OF THE REGIONAL FRENCH OF NORMANDY

Damien John Hall

Gillian Sankoff

This dissertation is the first investigation of the Regional French of Normandy using sociolinguistic principles of data collection and analysis as outlined by Labov (2001). It provides a partial characterisation of the regional variety of French spoken in Normandy, France, by analysis of linguistic, dialectological and attitudinal data collected in two sites: La Bonneville (rural Lower Normandy) and Darnétal (urban Upper Normandy). This is the first sociolinguistic study of any variety of European French to make exclusive use of instrumental measurements for the investigation of phonological variables (the vowels in this study). Two vowel variables and one morphosyntactic variable, all of which have been noted in the literature as characteristic of the Regional French of Normandy, are investigated in the purely linguistic part of the study.

In the dialectological / attitudinal part of the study, informants were asked to fill in maps of Normandy according to where they thought people spoke differently. They were then asked whether there was a local accent in their area, whether they had it themselves, whether they could give any examples of the accent and whether they thought the accent was a good one. In the final part of the dissertation, the results of these questions are

compared with the phonological results speaker-by-speaker, to determine in particular whether there is any correlation between an individual speaker's opinion about the 'goodness' of the accent and their own phonological results (whether or not they actually use the Normandy variant of the vowel variables).

The conclusions of the study are that the effect of a Norman-language substrate in the Regional French of Normandy is limited at best, and that, in linguistic terms, Normandy still constitutes a single speech-community. However, in perceptual-dialectological terms, Normandy is arguably not a single speech-community, since there is little shared knowledge of norms between the communities, at opposite ends of Normandy, which are investigated here.

Reference

Labov, William. 2001. *Principles of Linguistic Change, Volume 2: Social Factors*. Oxford, UK and Malden, MA, USA: Blackwell.

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Chapter 1 Introduction

1.0   Reason for the study

This dissertation is the first investigation of the modern Regional French of Normandy (RFN) to link findings using variationist methods of data collection and analysis (Labov 2001) with findings from a perceptual-dialectology study using well-established methods from that discipline (Preston 1999, Kuiper 1999). As such, it joins a small but growing body of work on the regional varieties of French in France. The aim of carrying out such a study is to begin to characterise the sociolinguistic distribution of RFN in Normandy (at least for the variables considered here), and to attempt to account for that distribution by reference to the social variables considered and to speakers' attitudes towards it.

1.1 Outline of the study

Chapter 1 gives an outline of the rest of the study, and places the study in context with other studies in sociolinguistics and other related fields (sociolinguistics in France, dialectology and historical linguistics both generally and in France in particular, and studies of the regional languages of France, particularly Norman).

Aspects of RFN are then investigated in two ways: by what we might call traditional variationist methods, and by a perceptual-dialectology study. By 'traditional variationist methods' I mean the use of appropriate linguistic and statistical techniques, in the way first demonstrated by Labov (1963) and more extensively in Labov (1966 / 2006). The linguistic variables investigated in this way are:

- (a) – Chapter 3: the relationship between the phonetic realisation of /a/ and the phonetic realisation of /ɑ/ in the speech of each informant, and the consequences of this relationship for their phonology (whether or not /a/ and /ɑ/ are merged; if they are, where in the vowel-space the mean realisation of the merged phoneme is found; if they are separate, where in the vowel-space the mean realisations of each of the phonemes is found)

- (e) – Chapter 4: the phonetic and phonological relationship between the realisation of /ɛ/ and the realisation of /e/ in the speech of each informant, with the same research questions as for (a)

- (que) – Chapter 5: the informants' ratings of sentences with COMP, both singly-filled (*qui* 'who', *quand* 'when', *où* 'where', *comment* 'how', *pourquoi* 'why' + clause) and doubly-filled (these complementisers + *que* 'that' + clause)

The vowel variables (a) and (e) are examined in two speech-styles, interview style (conversational, intended to be the less formal of the styles) and Formal Methods style (a more monitored style of speech, as informants were asked to carry out various linguistic tasks; for further details, see Chapter 2, Methodology). Since relevant contexts for the morphosyntactic variable (que) are rare in spontaneous speech, that variable is examined only from the results of the Formal Methods task where informants were asked to judge sentences containing singly-filled and doubly-filled COMP.

The perceptual-dialectology study (Chapter 6) was carried out by asking informants to draw isoglosses on blank maps of France and Normandy to indicate 'where people spoke differently' (including, if they could specify them, the boundaries of the accent areas where they themselves lived), and then asking them questions about the accent of their own area ('Do you think there is an accent here?', 'Do you have the local accent?', 'Can you give examples of the local accent?' and 'Do you think the local accent is a good one?'). The results of the perceptual-dialectology study and the variationist study are then linked by comparing individual speakers' responses to the questions with their own results for the vowel variables (a) and (e).

1.2   General sociolinguistic interest of the study

The results of these investigations will bring data to the question of the extent to which RFN is separate from both SF and Norman for speakers in Normandy. Prior work has shown that this is a question of interest. During a previous survey (Hall 2003), all the interviewees in the rural research site for this study, La Bonneville, acknowledged that a regional variety separate from French existed (they called the variety *patois*, as do people in many areas of France with a regional variety: Taverdet 1977: 5, Lepelley 1999a: 25-27); however, they were often unable to recognise its specific (phonological and morphosyntactic) features when asked. This raises the following questions:

- To what extent and how are speakers able to separate SF from RFN (and standard languages from their regional variants in general)?

- To what extent and how are speakers able to separate RFN from Norman (and regional variants of standard languages from closely-related minority languages in general)?

In this study, informants' responses to the questions of whether there is a local accent in their area, and whether they can given examples of it, will help to establish the boundaries that they are or are not able to identify between these three different varieties. Speakers' boundaries between the varieties, or the relationships that they identify between them, will then cast light on the issue of how minority varieties survive when the

majority, official language is very closely related to them, closely enough for it to be possible that the majority language simply assimilates features from the minority language, and they become features of a regional variety of the majority. In the present case, two broad outcomes are possible:

1. the minority language (Norman) survives in the minds of speakers, some of whom claim that they can speak both and keep them apart (this situation has been observed to prevail in the Langue d'Oc region (e.g. Pooley 2000) and in Picardy (see the work of Auger and other scholars on Picard);

2. the minority language survives not as a separate linguistic variety but through phonemes, lexical items or other features which the majority language (French) assimilates from it, making them part of the regional variety of the language (RFN).

In Normandy taken as a whole, elements of both outcome 1 *and* outcome 2 are found, especially when the opinions of the speakers themselves are taken into account. Location and speaker age are major factors: any of my rural informants of 70 years of age or more claim that they speak both *patois* and French (*patois* is the universal way of referring to Norman in Normandy); on the other hand, many who are younger than this say that they cannot speak *patois*, while they clearly retain *patois* features in their casual / interview-style phonology. In the urban site, no speaker said that they themselves spoke Cauchois (the name of the local variety of Norman, deriving from *Pays de Caux*, the rural area

North-West of Rouen, which is almost the only area in Upper Normandy where any variety of Norman is still spoken).

1.3   Definitions

1.3.1   Norman

'Norman' (in French *Normand*, in Norman itself *Normaund*) refers to the indigenous Romance variety of Normandy. Figure 1-1 (below) shows the major isoglosses which define the Norman domain; it lies at the intersection of the North-West Domain and the Greater West Domain in the Gallo-Romance sub-family. The Norman domain is the subject of one of the foundational works of dialectology, *Des Caractères et de l'Extension du Patois Normand* (Joret 1883); the research carried out by Charles Joret, summarised in this book, led to the bundle of isoglosses which defines the North-West Domain (as the territory lying North of the line); the bundle is known as the *Ligne Joret* 'Joret line' to this day, and its changing location is the subject of ongoing work (*e.g.* Lepelley 1999a).
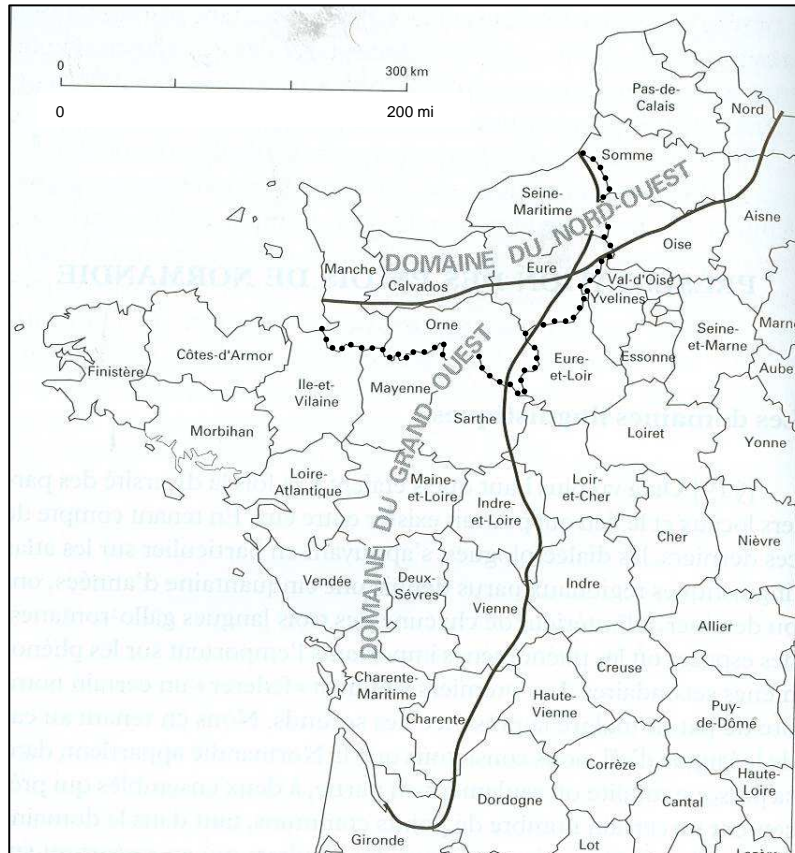
Figure 1-1
The major isoglosses of the Norman domain (Lepelley 1999a: 46)
Domaine du Nord-Ouest 'North-West Domain'
Domaine du Grand-Ouest 'Greater West Domain'

Legend

━━━━━ isoglosses   • • • • • • • boundary of Normandy

Norman is closely related to French; authorities differ as to whether it is a sister-language

of French (*e.g.* Délégation Génerale à la Langue Française et aux Langues de France[1]

2006; this is also generally the position taken by language and culture activists in the

Norman domain) or a dialect of French (*e.g.* Gordon 2005; *cf* Figure 1-2 below). This

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[1] 'General Delegation on the French Language and the Languages of France'

study will remain agnostic on the question, using the neutral term 'variety' to refer to

Norman.

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Romance
  ↳ Italo-Western
      ↳ Western
          ↳ Gallo-Iberian
              ↳ Gallo-Romance
                  ↳ Gallo-Rhaetian
                      ↳ Langues d'Oïl
                          ↳ French
                             ? ↳ Bourguignon-Morvandiau
                                  Champenois
                                  Franc-Comtois
                                  Gallo
                                  Lorrain
                                  Norman
                                  Picard
                                  Poitevin
                                  Saintongeais
                                  Walloon
```
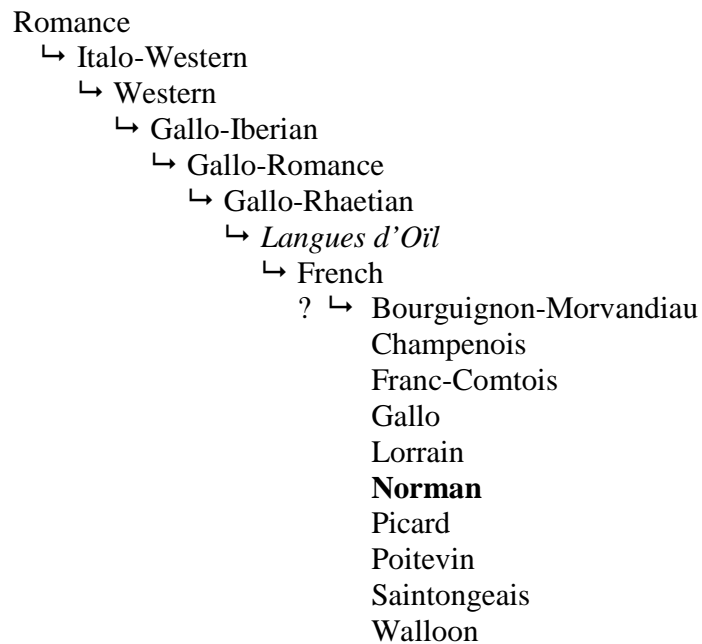
Figure 1-2
Abbreviated possible *Stammbaum* of Norman, based on Gordon
(2005) and DGLFLF (2006)

Scholars of Norman and RFN agree that there is in fact no single standard for Norman.

Mauvoisin (1995) accords the status of 'grammar' to two works on the variety, UPNC

1995 for western (Lower) Normandy and Fédération Départementale des Foyers Ruraux

de la Seine-Maritime [1985] for eastern (Upper) Normandy. Section 1.4 below (this

chapter) gives a brief overview of the segmental features of Norman, though the

phonemic status of some features does vary in different varieties of Norman. For

example, vowel-length is regularly (morpho)phonemic in Channel Islands Norman (Jones

2001: 28), since it serves to distinguish both minimal pairs with no morphological distinction, and singular from plural in vowel-final nouns; on the other hand, the phonemic status of vowel-length in mainland varieties of Norman is debatable. By no means all works on the phonology of mainland Norman (of whichever variety) mention it at all, and when it is mentioned it may not serve to maintain the same distinctions as it does in Channel Islands Norman. The fieldwork sites for this study (see below) were chosen in order to cover both eastern (Upper) and western (Lower) mainland Normandy, since the main isogloss between varieties of Norman runs approximately along the boundary between these two regions, which between them make up the whole of mainland Normandy.

1.3.2   Regional French of Normandy

RFN is defined here as the French spoken by natives of the French historical region of Normandy, now officially divided into the regions of Upper and Lower Normandy (Basse-Normandie, consisting of the Manche, Calvados and Orne *départements*, and Haute-Normandie, consisting of the Eure and Seine-Maritime *départements*). In terms of formal linguistics, RFN must be carefully distinguished from Norman. The extent to which the difference between RFN and Norman is maintained today is one of the research questions of the study. The following section of the description addresses the

differences between these three varieties, first in formal terms, and then in terms of the difference perceived by speakers.

1.4   Linguistic differences between (Standard) French and Norman

In the absence of specific analytical work so far on the phonemic inventory of Mainland Norman (*i.e.* the Norman of Upper and Lower Normandy as opposed to the Norman of the Channel Islands), as a first point of comparison we can use the phonemic inventory of the closely-related Channel Islands varieties: *Jèrriais*, spoken on Jersey, *Guernésiais*, (Guernsey) and *Sercquiais* (Sark).

With this *caveat*, the phonemic inventories of SF and Norman are therefore as shown in Figures 1-3 and 1-4. For these phoneme inventories, cf Fougeron & Smith (1999: 78-9) for French and Jones (2001: 27-9) for Norman. In the consonant inventory of Norman, the palatal lateral /ʎ/, the glottal fricative /h/ and the velar fricatives /x ɣ/ have been added to Jones' table; the interdental fricative /ð/ has been removed.

Vowels

Standard French (prescriptive)[2]   *Norman (Jèrriais)*

Oral   *Oral*

i,y   u   i iː, y yː   u uː

e,ø   o   e eː, ø øː   o oː

        ə   ə

ɛ,œ   ɔ   ɛ ɛː, œ œː   ɔ ɔː

        a   ɑ   a   ɑː

Nasal   *Nasal*

                                          ẽ ẽː, ø̃ ø̃ː   õ õː

ɛ̃,œ̃   ɔ̃   ɛ̃ ɛ̃ː

        ɑ̃   ɑ̃ ɑ̃ː

Figure 1-3
Vowel inventories of Standard French and Norman

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[2] The vowel-inventory listed here is described as 'prescriptive' because (at least) many – if not most – modern varieties of European French merge /a/ and /ɑ/;however, most prescriptive sources still list /a/ and /ɑ/ separately. For further details, see Ch3.

Consonants

Standard French

	Bilabial	Labio-dental	Dental	Palato-alveolar	Palatal	Velar	Uvular	Glottal
Stop	p b		t d			k g		
Fricative		f v	s z	ʃ ʒ			ʁ	(none)
Trill	(none)							
Nasal	m		n		ɲ	ŋ		
Lateral			l					

Mainland Norman

	Bilabial	Labio-dental	Dental	Affri-cate	Palato-alveolar	Palatal	Velar	Uvular	Glottal
Stop	p b		t d				k g		
Fricative		f v	s z	tʃ dʒ	ʃ ʒ		(x ɣ)	ʁ	(h)
Trill			r						
Nasal	m		n			ɲ	ŋ		
Lateral			l			ʎ			

Figure 1-4 Consonant inventories of Standard French and Norman

- /ʎ/ is uncontroversially present in the inventory of Mainland Norman (cf UPNC 1995) as the reflex of Latin /l/ / {p b k g f}_.

- There are back fricatives in the Norman reflexes of most Germanic roots with initial /h/ (*hareng* 'herring', *haie* 'hedge'), and in the Norman(-influenced) pronunciations of some lexical items derived from Latin (*dehors* 'outside' → [dəxɔʁ]) and many place-names with initial orthographic <h> (*Hauteville* → /xotvil/). These pronunciations are limited to lexical items where the etymological /h/ is still present orthographically. The precise nature of this back fricative in Norman has not been studied, and may be allophonic: for simplicity, UPNC (1995) transcribes it <h̲>, to mark the fact that this is an <h> which is not only written but also pronounced); and Laîné (2006) comes to the conclusion that (in *dehors* at least) the realisation is [x], but does not exclude the possibility that it could be the voiced counterpart of [x], [ɣ].

- /ð/ is not present in Mainland Norman; it is present in Jèrriais as the result of the assibilation of intervocalic /ʁ/.

- /tʃ dʒ/ are present in Standard French only in borrowings from English, not in native vocabulary.

- The only other difference between the consonant inventories of Standard French and Norman is the presence in some varieties of Norman of the dental trill [r]. It is not present in the autochthonous varieties of either of the sites for the present study,

but Channel Islands varieties have it, as well as varieties from the South of the Manche and Orne departments in mainland Normandy.

The only difference between the vowel inventories of (prescriptive standard) French and Norman is the presence of contrastive length in Norman, a feature which has been seen to be present to some extent in RFN (Hall 2003). For Jèrriais, Jones notes a difference between unrounded mid-close and mid-open front vowels; this difference is not thought to be present in mainland Norman (Hall 2003 and references there), and Ch4 of this study shows that it is present to a limited extent at best in RFN.

1.5   Differences in perception between varieties

1.5.1   Differences in perception between (Standard) French, RFN and Norman

Sources differ as to whether Norman is to be considered a language, probably according to the reason for their classification. Linguistically, the SIL Ethnologue catalogue classifies it as a dialect of French (Ethnologue 2005), while the neighboring and related Picard is classified as a language in its own right; on the other hand, the Délégation Générale à la Langue Française et aux Langues de France (DGLFLF, 'General Delegation on the French Language and the Languages of France') classifies the two as *langues de France* 'languages of France', at the same level from a policy point of view (DGLFLF 2006). (However, this classification does not mean that all the varieties

identified as *langues de France* are accorded the same privileges or resources.) Norman-speakers in the region generally consider it a language, and separate it from the French that they speak. They call in evidence cultural as well as linguistic factors to support their assertion (Mauvoisin 1995; Université Populaire Normande du Coutançais 1995; Bourdon, Cournée & Charpentier 1993). Other linguistic treatments of the situation in Normandy have avoided making a decision about the label to give to Norman (Lepelley 1999a, Pope 1952).

However the regional variety of Normandy as a whole is labelled, natives of the region and students of its language are strongly aware that, like other languages, it has many local variations. Mauvoisin (1995) says explicitly that the existence of these local variations does not prevent Norman from being a single language: 'Dire qu'il y a une langue normande n'est pas incompatible avec l'existence de variantes à l'intérieur du domaine considéré' ('saying that there is a Norman language is not incompatible with the existence of variants inside the domain under consideration'). Accordingly, many of the local lexicons published in Normandy limit themselves to listing the peculiarities of some particular place, and many formal linguistic studies have also been limited to the language of a particular area. (See the comprehensive lists in Lepelley 1999a.)

Since people are conscious of the regional differences within Normandy, everywhere within the region (at least in the rural areas) one is likely to hear it said that the next

village has a different *patois*; the neighbouring variety will not be incomprehensible, but it will certainly be different. *Patois* is the term most often used to denote these different varieties, and people speaking Norman will usually describe themselves as speaking *patois*, whether or not they are conscious of the regional variation within Normandy. Thus, *patois* is used both to denote the varieties of Norman spoken in individual villages and to denote Norman as opposed to French; lexicons purporting to record Norman as a whole will occasionally be titled *Dictionnaire du Patois Normand* ('*Dictionary of Norman Patois*') (e.g. Dubos 1994).

For speakers of Norman and other regional varieties of France, the term *patois* sums up a feeling of linguistic differentiation (on a local, regional or national level) and an emotional attachment to the variety so labeled and to the place, the *terroir* ('homeland'), where it is spoken. This dichotomy in the denotation of *patois* is also explicitly studied by Lepelley (1999a: 25-27). It is very clear that, in the minds of speakers of Norman who label it *patois*, the word has no derogatory connotations, which is probably quite contrary to the implications of the word *patois* when it is used to refer to a regional Romance variety by a non-speaker of that variety. These derogatory implications go further back than Abbé Grégoire's 1794 report to the (Revolutionary) Constituent Assembly, *Rapport sur la Nécessité et les Moyens d'Anéantir les Patois et d'Universaliser l'Usage de la*

Langue Française:[3] if Grégoire was able to use the word in this clearly derogatory sense in the title of a report to the Constituent Assembly, the sense must already have been in common usage. But the commonness of the derogatory meaning of *patois* also has its down-side, at least for speakers and others who are taking action to promote and safeguard the speaking of Norman. These people never refer to the variety as *patois* (even though other non-activist speakers do), precisely in order not to perpetuate the negative stereotype associated with the word *patois* among non-speakers of such minority varieties. Instead, they would rather everyone referred to Norman as *la langue Normande* 'the Norman language'. We have already seen this in the quotation from Mauvoisin (1995), earlier in this section.

Whatever an individual's stance on the name to give to the autochthonous Romance variety of Normandy, though, in the minds of many natives of the ancient province the relationship between French (standard or RFN) on the one hand and Norman / *patois* on the other is clear: they are two separate linguistic varieties, and people who speak both are bilingual. It is acknowledged that few people speak any variety of *patois* these days, and most of my previous interviewees under the age of 70 in rural Lower Normandy said that they did not speak it. One research question for this study was to establish whether

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[3] 'Report on the Necessity and the Means to Eradicate Patois and to Make the Use of the French Language Universal'

the same is true of Norman in (an urban part of) Upper Normandy and in other (urban) environments: this question is addressed in Chapter 6.

1.5.2   Differences in perception between Standard French and RFN

RFN must also be carefully distinguished (theoretically as well as in speakers' perceptions) from Standard French (also often referred to as *français de référence* 'Reference French'). Speakers usually assume that SF is French as the accepted authorities say that it should be spoken, the authorities being principally the Académie Française and accepted dictionaries. (The difficulty that the Académie has no binding power over any academic conception of the language – it has produced no grammar – and that its dictionary is only one among several standard reference dictionaries is usually overlooked by the French themselves, possibly because of their high regard for the function of the Académie.) Probably because the seat of power in France since its nationhood has always been Paris, it is also usually assumed that SF emanates from Paris (Battye & Hintze 1992: 47ff); people have not always been aware that Paris too has an urban vernacular different from the standard (Lodge 2004: 5, Jamin 2005).

In this study, 'Standard French' will be defined as French with no perceptible features marking it as being influenced by Norman or by any other regional variety of France.

1.6   A major question: Which Norman features come into RFN?

The pilot study for this investigation considered a long list of linguistic features of Norman for inclusion in the main study; the list is given below. The final list of features for investigation – (a), (e) and (que) – was selected on the basis of the methods available to investigate them, and (for the phonological features) on the frequency of the features, which allowed me to collect a large enough data-set for accurate statistical analysis. The theoretical question to be answered with the help of these data is whether there is any correlation between the appearance of a certain Norman feature in the (casual / interview-style) RFN of a given speaker, on the one hand, and their attitudes about RFN, on the other. This study finds that the answers to these questions vary between the study-sites, and the correlations between speech and attitude and the reasons for this variability are considered in Chapter 6.

1.7   Variables considered during the pilot study

Following is a list of the variables considered during the pilot study for inclusion in the main part of this study. All have been documented in Norman and in RFN; references are given for each. Subsequent chapters give further details about the variables which were chosen for the final analysis: Chapter 3 for (a), Chapter 4 for (e) and Chapter 5 for (que). It is not claimed – neither for the features analysed in this study nor for the ones not yet

analysed – that any of these features is exclusive to Norman or to RFN; rather, it will be a particular combination of features which will identify RFN, even if each of those features individually can also be found in other regional varieties of French and / or other regional autochthonous varieties of France.

1.7.1 Phonological variables

1.7.1.1 Phonological variables included in the study

- The relationship between /a/ and /ɑ/ in all positions where the relevant vowel is long enough to be measured, including in particular the following specific contexts where the vowel has been noted as having a characteristic Norman realisation:

- (included in the (a) variable) The nominal suffix –*ation*, SF /asjɔ̃/ (and other occurrences of /a/ in penultimate syllables) > RFN [ɑ(ː)sjɔ̃] (Carton *et al.* 1983)

- (included in the (a) variable) -*oi*-, SF /wa/, where the informant does realise the nucleus as a variant of /a/ and not a higher front vowel (/wa/ → [wɛ] in parts of Normandy, *cf* Brasseur 1980-1997)

- (included in the (a) variable) –*aille*, SF /aj/ > [al] / [ɑl] (only the token of (a) is analysed here, not the variation between [j] and [l] after it): *il travaille* >   SF

/i(l) tʁa vaj/, RFN / Norman /i tʁa val/ ('he works') (*cf* also *–ille*, SF /ij/ > RFN [il] / [ɪl], below)

- Realisation of final /-e/ and /-ɛ/: the Norman accent is commonly held to pronounce *–ait* [e] and *–é* [ɛ], reversing the SF pronunciations of these vowels. The data for Hall (2003) indicated that the two vowels of SF might be converging to a vowel between /ɛ/ and /e/ in RFN, but this study (Chapter 4) shows clearly that many speakers of RFN are merging /ɛ/ and /e/ to a vowel at the height of /e/. Previous phonological studies of regional varieties of French have also indicated that the opposition between these vowels may not be conserved by all speakers, though these studies have not agreed about the location of the merged vowel. Walter 1977: 43 and Walter 1982: 130ff, esp. 132-3, on an informant from Gréville, Manche, show simply that the distinction between /E/ and /e/ may not be maintained; Carton *et al.* 1983 say specifically that [-e] in a final open syllable may be lowered to [-ɛ].

1.7.1.2 Phonological variables not included in the study

- the nominal and verbal ending *–ille*, SF /ij/ > [il] (Carton *et al.* 1983)

This ending is lexically variable. In French, *cf* the variation possible with *mille - mille trois cents* /mil tʁwa sã/ ~ *mille ans* /mi lã/ ~ *j'en ai mille* /ʒã ne mij/ ('one thousand three hundred', 'a thousand years', 'I have a thousand') – but the lack of

variation in *fille*: *ma fille Thérèse* /ma fij te ʁɛz/ ~ *ma fille a huit ans* /ma fij a ɥi tã/ ~ *voici ma fille* /vwɑ si ma fij/ ('my daughter Thérèse', 'my daughter is eight years old', 'here is my daughter'). This situation in French should be compared with the pronunciation /-il/ or /-ɪl/ for *–ille* and /al/ or /ɑl/ for all lexemes in all phonological environments, both in Norman and in the FRN of at least some interviewees: *mille ans* /mi lã/, *j'en ai mille* /ʒã ne mil/, *ma fille a huit ans* /ma fil a ɥi tã/, *ma fille Thérèse* /ma fil te ʁɛz/, *il travaille* /i tʁa val/ ('he works').

- the pronoun *elle* 'she', SF /ɛl/ > [al]

- *ils* + liaison, *e.g. ils ont* 'they have', SF /i(l) zɔ̃/ > [i lɔ̃]

- /l/ in the onset combinations /bl pl ɡl kl fl/ > [ʎ] (Guerlin de Guer 1899, Lepelley 1974, Mauvoisin 1979, UPNC 1995)

- palatalisation of /t/ in /tj/ > [tʲ, tʃ] (Lepelley 1974)

- phonemic vowel-length in masculine plurals ending in a vowel (Lepelley 1974, 1975; Walter 1982; Carton *et al.* 1983; Hawkins 1993)

- SF /s/ > RFN [ʃ] (Lepelley 1974, Walter 1982)

- palatalisation of SF /k ɡ/ (palatalised reflexes vary across the Norman territory: see *e.g.* Brasseur 1980-1997)

- fronting and lowering of SF /ɔ̃/ (Carton *et al.* 1983; UPNC 1995 for Norman)

- pronunciation of initial [h-] (or another back oral fricative) in words of Germanic origin now beginning with orthographic <h>, e.g. *hareng* 'herring' [haʁɛ̃], [ʁaʁɛ̃], and in some words of Romance origin (*dehors* 'outside' [dəhɔʁ] (Carton *et al.* 1983)

1.7.2 (Morpho-)syntactic and lexical variables (not included in this study)

(For more details on doubly-filled COMP, (que), which *is* included in the study, see §1.1 and Chapter 5.)

- the verbal prefix *re-*, SF /rə/ > [ər-] (also [ar-]) (Carton *et al.* 1983)

- *itou*, the RFN variant of SF *aussi* 'also' (*itou* is also found in other regional varieties of France, and most dictionaries do not characterise the word as regional – see *e.g.* Robert 1989 – but as *familier* 'casual / intimate style' and *vielli* 'antiquated'; however, it is seen by speakers as a feature of RFN and Norman that distinguishes them from SF)

1.8   Relationship to other current research

As has been stated, comparatively little variationist work has been done on regional varieties of French. The body of such work which exists so far certainly does not cover

all the regional varieties of French. Examples are the work of Pooley (1999, 2000, 2003, 2007) on Picardy French and regional accents more generally; Hornsby (2002, 2007) on the dialects of Northern France and koineisation; Armstrong (2003; Armstrong & Unsworth 1999) on variation in regional varieties of French more generally; Boughton (2003, 2005) on Nancy and Rennes; Jamin (2003a, 2003b, 2005) on the Parisian suburbs; Arnaud (2006) on the French of Haut-Jura. There is also the early honorable exception of Lennig (1978) on Paris, which, while mostly concerned with the phonetic and technical methods of physical vowel quantification, is nevertheless a variationist study. The present study will therefore fill a gap by adding another regional variety of French to the list of those which have been studied from a variationist point of view.

Since speakers' acknowledgement and recognition of the non-SF features in RFN will be a crucial part of this study, its conclusions will also be relevant to the field of perceptual dialectology. Preston's linking of language attitudes to perception of regional variety (Preston 1999) will be an important concept. Little work under this exact rubric has been done on French (most observations of this type on French are incidental, like Lefebvre's Picard poet, cited above), so this study will also contribute to our knowledge of the way in which regional varieties of French are influenced by the language attitudes of the speakers; I expect that in a country as language-conscious as France, the effect will be

significant. Kuiper's 1999 article gives the results of a language-attitude survey carried out in Paris and covering the regional accents of the whole of France.

With this general background, then, we can begin to look more specifically at the places and variables investigated in this study. Further context on the linguistic variables is, of course, provided in the relevant chapters.

Chapter 2 Methodology

2.0   Introduction

This chapter gives detailed descriptions of the two sites for this study, followed by descriptions of my procedures for selection of informants, selection of informants to include in the final sample, interviewing and coding.

2.1   The study-sites

2.1.1   A word on the territorial division of France

In the following descriptions of the sample areas for this study, it will be necessary to refer to various French territorial divisions which, almost inevitably, do not have demographic equivalents in many other countries (though many of the words used to

name them, like *région*, *département* and *commune*, have dictionary translations in the general sense: 'region', 'department', 'commune'). In order to avoid drawing parallels with territorial divisions elsewhere which are not in fact exactly parallel, the French terms for these divisions will be used, as follows.

région   The largest French territorial subdivision; European France[4] is divided into 22 *régions*. The historical province of Normandy was divided into two regions, *Basse-Normandie* 'Lower Normandy' and *Haute-Normandie* 'Upper Normandy', in 1956; the *Mouvement Normand* 'Norman Movement' is dedicated, among other things, to the administrative reunification of Normandy.

département European France is divided into 96 *départements*; like US States, the *département* is the territorial subdivision to which the French most often refer to tell non-locals where they come from (unless they use a big city), though French *départements* have much less political autonomy than US States. Each *département* has a number, used to refer to it in addresses and

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[4] By 'European France' I refer to mainland France and Corsica taken together, referred to in French official figures as *la métropole* 'the metropolis' (*cf* INSEE 2007). The non-Corsican French do not themselves often refer to exactly this combination of territories, since mainland France and Corsica are usually separate in the public consciousness; the most common way of referring to France's European territory for the mainland French is *l'hexagone* 'the hexagon', a reference to the approximate shape of the French mainland on a map, which excludes Corsica.

elsewhere. Normandy is divided into five *départements*: Manche (50), Calvados (14) and Orne (61) in Lower Normandy and Seine-Maritime (76) and Eure (27) in Upper Normandy.

canton   In most cases (including the sample areas for this study), the *canton* is a collection of several neighbouring *communes* (see below) around a central *chef-lieu de canton* 'main town of the canton'; this is usually the largest population centre in the *canton*. The *canton* is no longer used for statistical purposes, but it is often used as a folk division of territory (for example, the Cherbourg daily newspaper *La Presse de la Manche* organises news in the paper and measures its circulation by *canton*). In the case of the rural sample area for this study, two neighbouring *cantons* provided a convenient way to delimit the study in a manageable way.

commune   The *commune* is the basic municipal unit in France; the term could be glossed 'municipality'. A *commune* is headed by a mayor and is the level at which basic services are provided, unless the commune is too small for this to be practical, in which case some services are provided by a *communauté de communes* 'community of communes'. At the local level, loyalty to one's *commune* can be high, and people can be very conscious of exactly where the boundary between their *commune* and the next lies,

possibly because the provision of services (e.g. sanitary) depends on the

commune or on some collection of *communes*.

2.1.2   Selection of the study-sites
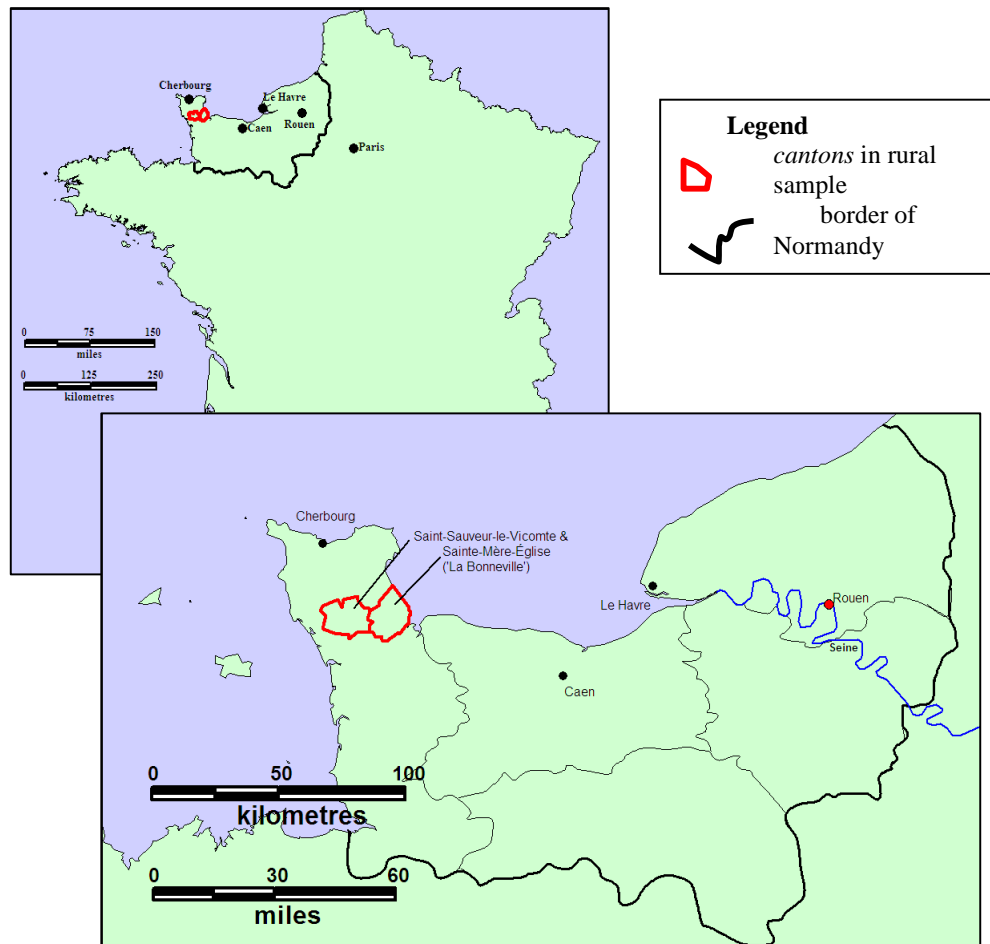
Figure 2-1
Location of Normandy, major Normandy cities, and the rural sample
area

Since Normandy lies at the juncture of two major dialect areas in the development of

French, the 'North-West Domain' and the 'Greater West Domain' (Fig. 1-1 / pg.7 above,

Lepelley 1999a: 46), the varieties of Norman spoken at the two ends of the former province are slightly different, though mutually intelligible. (The areas in which each variety is autochthonous roughly correspond to the modern *régions* of Upper and Lower Normandy.) Since one of the goals of this study is to quantify the differences, if any, between the Regional French in each of these areas, and thus to start to answer the question of whether there is in fact a single 'Regional French of Normandy', one site was selected in each area. The site in Western Normandy, la Bonneville, is entirely rural, like the vast majority of the Manche *département* in which it is located; the site in Eastern Normandy, Darnétal, is urban, lying immediately to the East of the city of Rouen. The demographic difference (urban versus rural) between the two sites will also allow us to investigate which of the features found in Darnétal speech are likely to be related to its location in Normandy, and which to its position as part of a large Northern French conurbation.

Within their areas, the two sites for this study were selected to be maximally representative of local speech by various criteria. The *cantons* of Saint-Sauveur-le-Vicomte and Sainte-Mère-Église were selected because they were about the right size (having approximately 10,000 inhabitants who lived outside the towns) and were convenient to get to; later, during the map-drawing part of my study, it also proved that no informant said the local variety of French was different between the two *cantons*,

though some did say that other places close to the area (for example, Valognes and Saint-Lô) had different accents. Darnétal was selected as the site for most of the urban interviews initially because two of the very first informants in the study, interviewed in the centre of Rouen, said (in separate interviews, and independently of one another) that if I wanted to hear a real 'Rouen accent' I should go to Darnétal. When I arrived in Darnétal, found out a little about the community and arranged some interviews there, I found that it had other attributes which made it a good study-site: it had roughly the same population as my rural sample-area, giving me the same size of pool of potential interviewees; it was a small town which showed a distinct sense of community, in that many of my informants in the centre of the town knew each other and participated in community activities together; and, though the centre of the town was deprived, it had more prosperous outskirts, so that the sample of speakers of this urban variety would be as socially-balanced as possible.

2.1.3   'La Bonneville': the rural Manche
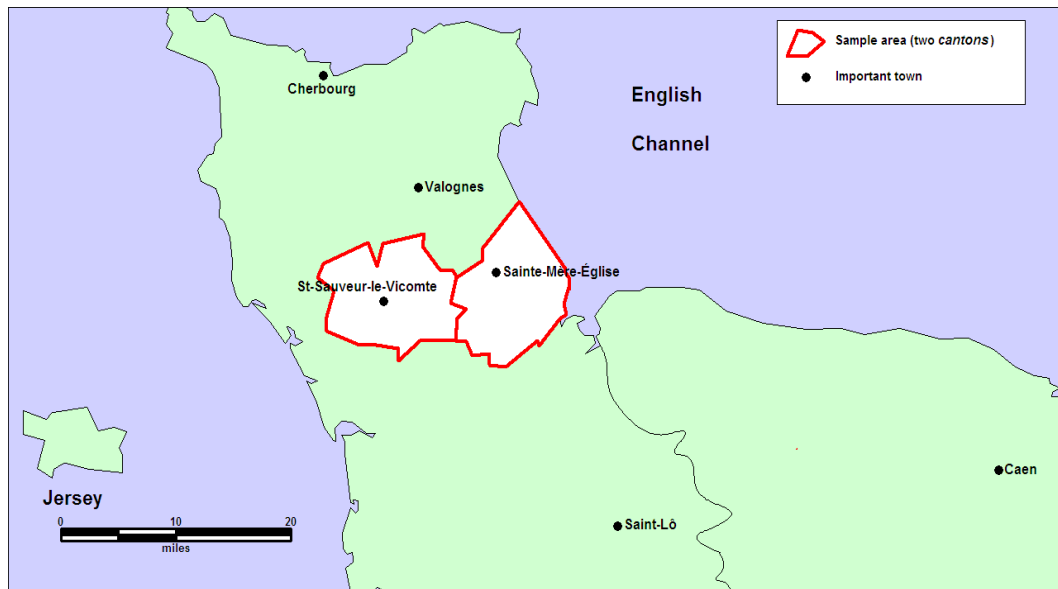
Figure 2-2
Location of the rural sample area

The rural sample for this study was taken in villages in the adjoining *cantons* of Saint-Sauveur-le-Vicomte and Sainte-Mère-Église, Manche (henceforth SSV and SME respectively).[5] In each *canton*, people who had been brought up in the *chef-lieu de canton* were excluded: this ensured that only people who had been brought up in very rural areas would be part of the sample, and also meant that the populations for possible sampling in both the rural and the urban sample areas were approximately equal at about 10,000. During analysis, the rural sample was referred to as the 'La Bonneville' sample, from the

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[5] *Canton* outlines here and in subsequent maps are taken from Lebaindre & Boivin (2002: xiii).

name of the village where just under half of the rural interviewees lived. The *cantons* of

SSV and SME, in which all the rural interviewees lived, are almost entirely agricultural.

Inland, the majority of the land is given over to dairy farming, with a sizeable minority in

cereal farming and some in horse-breeding; mussels are cultured on the coast of the

canton of SME (the coastal areas of the rest of the *département* are also shellfish-culture

and fishing areas). The Manche has always been an agricultural *département* and it

remains so, even if the total area of agricultural land has been decreasing since the early

1980s: in 2004, the last year for which official figures are available, 79% of the area of

the Manche was given over to agricultural use (Direction Départementale de

l'Agriculture et de la Forêt de la Manche 2004, Buléon 2006). This is the joint highest

proportion of agricultural use for any *département* in France, a country already

stereotyped in Europe as an agricultural country in general.
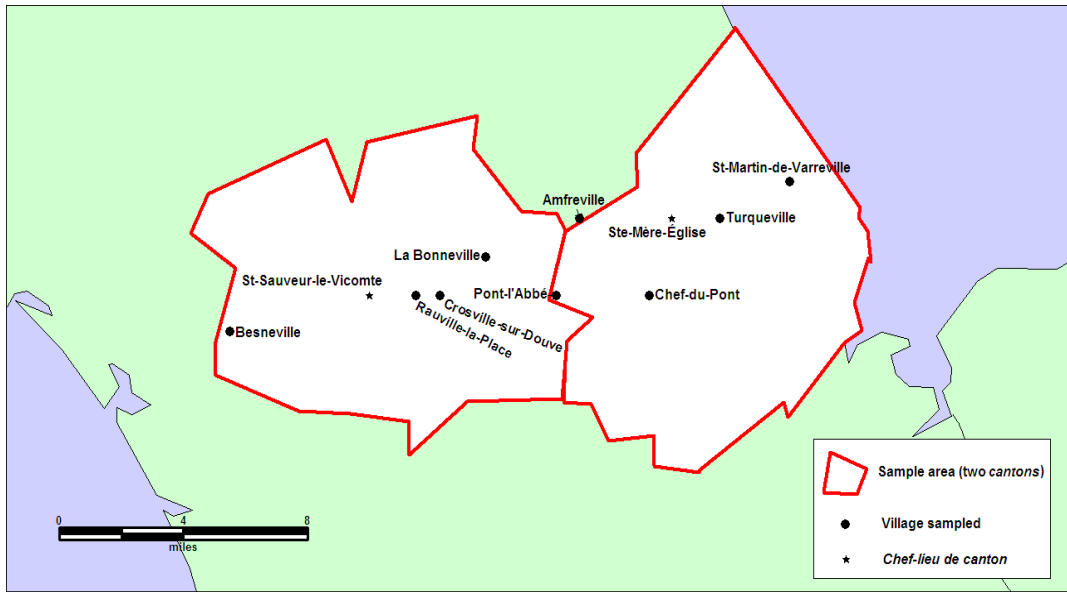
Figure 2-3
Villages of origin of informants (with *chefs-lieux de canton* for reference)

2.1.3.1   Population

The rural population of the Cotentin, like that of many rural areas of France, has been in decline since at least 1950 (Buléon 2006); the decline has accelerated since 1975, as urban populations increased. It seems likely that the decline in rural population can be
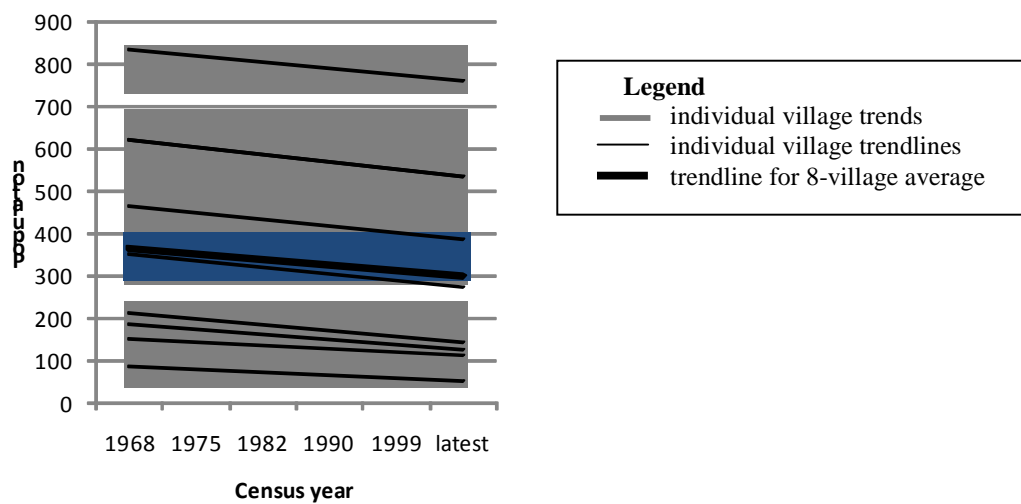
	Census year						
	1968	**1975**	**1982**	**1990**	**1999**	**latest**	**% decline**
Chef-du-Pont	826	807	817	834	745	755	9%
Besneville	682	580	564	536	516	601	12%
Rauville-la-Place	511	418	397	418	432	391	23%
Amfreville	369	333	312	295	290	290	21%
St-Martin-de-Varreville	229	183	178	169	155	155	32%
La Bonneville	205	173	154	129	143	143	30%
Turqueville	161	159	121	101	117	137	15%
Crosville-sur-Douve	95	77	67	48	58	64	33%
Average	**385**	**341**	**326**	**316**	**307**	**317**	**22%**

Figure 2-4, Table 2-1
Population for 8 of the 9 villages of origin in the rural sample
Figure: populations in censuses 1968-2007, with trendlines
Table: population figures (INSEE 2008)

linked to the increase in the average size of farms, as agriculture moved away from small family farms and towards more intensive farming: the available agricultural land was therefore divided into fewer parcels and contained fewer separate family dwellings, so the population decreased.

Figure 2-4, showing population data for the period 1968 – 2007 (INSEE 2008), illustrates this population decline for eight of the nine villages or origin for people interviewed in the rural part of this study. Declines are measured over the period from 1968 to the latest population census for each particular village; in France, populations are measured periodically in census off-years as well as in years when a full census is taken, so the 'latest' figure in these data is taken between 2004 and 2007 (depending on the *commune*). The village of Pont-l'Abbé is not included in the figure because it is officially classified as part of a larger *commune*, Pont-l'Abbé-Picauville (originally two adjoining villages); the combined population of the two villages is much larger than that of any of the other individual villages (1 995 in 2006), so it cannot be compared to the others in the sample on the same basis. The population of each village of the eight included in the figure is indicated by a pale line, and the trend by a solid dark thin line; the average population of the villages, and its trend, are indicated by thicker lines of the same type. For all the villages featured, it can be seen that the population has declined over the last thirty-nine

years, by an average of 22% (and, incidentally, the same is true of Pont-l'Abbé-Picauville, whose population has dropped by 25% in the same period).

Recently, evidence seems to show that the general trend of a declining village population may be being bucked. In four of the eight villages featured in Figure 2-4 (and also in Pont-l'Abbé-Picauville), the population rose in the period between 1999 (the last full census) and the partial census which has given the latest population figure; and in three of the remaining ones (Amfreville, St-Martin-de-Varreville and La Bonneville), the partial census which will give the latest population figure is due to be carried out in 2008. The amount of new building being done in 2008 in La Bonneville (the sample village with which I am most familiar) suggests that the 2008 partial census will show a population increase there too. This leaves one *commune* of the nine sampled, Rauville-la-Place, where the population certainly decreased between the last two censuses.

2.1.3.2 The physical geography of the Cotentin

A major feature of the topography of the Manche is its relatively low elevation: the highest altitude in the *département* is 343m (1 125ft), and the central Cotentin, where the sample area is situated, is all below 100m (328ft) (Guéné & Leberruyer 1981: 15). In particular, the marshes of the *cantons* of SSV and SME have shaped their history and continue to shape their present. Residents of the *cantons*, particularly SME, identify their

area as being in the *bocage*, sometimes qualifying it as *bocage valognais* 'bocage of Valognes' to distinguish this *bocage*, which lies near the town of Valognes, from other similar areas in Normandy). *Bocage* is translated 'technically' as 'mixed woodland and pasture-land'; in this case, the pasture-land in question is marsh-land, used to pasture cattle and horses when it is dry and can be walked on in the Spring and Summer. The marshes are a large part of the region's identity because they form a formidable natural barrier when flooded in the colder months (when they are referred to as *marais blancs* 'white marshes', a reference to the colour that flooded marshes reflect from the typically clouded sky). Considerable parts of the areas of both SSV and SME *cantons* are made up of marshland; *communes* in both form part of the *Parc Naturel Régional des Marais du Cotentin et du Bessin* 'Regional Natural Park of the Cotentin and Bessin Marshes', an area of $1\,450\text{km}^2$ (560mi^2) aimed at preserving the natural beauty of the marshland environment (Parc Naturel Régional des Marais du Cotentin et du Bessin 2008).

2.1.3.3 Recent history

In the present day, the self-perception of the Manche *département* is largely influenced by its recent history as the site of the first Normandy Landings. The landing beaches extend along 36km (22mi) of the coast of the Bay of the Seine, from Sainte-Marie-du-Mont (Manche) to Ouistreham (Calvados); beginning on 6 June 1944, many thousands of Allied soldiers landed on these beaches in what became known as the D-Day Landings.

Before the landings from the sea began, though, in the pre-dawn hours of 6 June, many thousands of Allied paratroopers began the land offensive when they were dropped over the area between the Merderet River (which runs through SME *canton*) and the sea. The parachute drop was not in fact a great success militarily – more than half of the parachutists landed many miles outside their intended drop-zone, and many drowned in the marshes where they landed, which were flooded even though it was Summer because the occupation forces had opened the flood-gates which kept sea-water out. Nevertheless, thanks to this parachute-drop, Sainte-Mere-Église was the first town in France to be liberated from the German occupiers (*Libération* 'liberation' is the term universally used in France to refer to the taking back of the country from German forces, rather than any more neutral term), and this has given rise to a large tourist industry in the area: there is a Liberation Route ('Route de la Libération') linking the major war memorials and sites by road, and museums at all the major and many of the minor sites. Many towns and villages in the area also commemorate the Liberation with street-names which might be considered unusual outside France: St-Sauveur-le-Vicomte has *Rue du 17 Juin* '17[th] June Street', commemorating the day when the town was liberated, and *Avenue Division Leclerc* 'Leclerc Division Avenue', commemorating the passage there of a division commanded by Gen. Leclerc on 19 July 1944. With such history as this, it will be no

surprise that wartime memories formed a large part of my interviews with people old enough to remember the time.

2.1.3.4 Unity of the area

In highly-centralised France, where the country in general is seen as looking to Paris, the Cotentin is stereotyped as an area which looks not inwards towards the capital but outwards towards the sea. Even with modern communications and well-maintained roads, the Cotentinais are very much aware that their land is a peninsula, and the transparent derivation of the French word for 'peninsula', *presqu'île* (< *presque* 'almost' + *île* 'island'), strikes them as very appropriate: for example, the village of Pont-l'Abbé, in which several of my interviews were conducted, is surrounded on three sides by marshland, and there are other villages which are linked to higher ground or roads only by a causeway across the marshes, so that it is not unusual for them to be cut off in the when the marshes are flooded in the Winter.

It was pointed out to me on several occasions that the Winter flooding of the marshes could, strictly speaking, make the Cotentin into an island. While this is a slight exaggeration – the marshes do not extend quite all the way across the peninsula, though the Regional Natural Park does, and of course there are roads across the marshes which remain passable all year (*cf* Guéné & Leberruyer 1981, Tapin 2007) – there is no doubt

that the *Cotentinais* ('Cotentin people') do see themselves as separate even from the rest

of the Manche *département*, and thus *a fortiori* from the rest of Normandy and France. A

concrete illustration of this feeling is in the circulation of *La Presse de la Manche*. It is in

direct competition with one other regional daily, *Ouest France* (which has several local
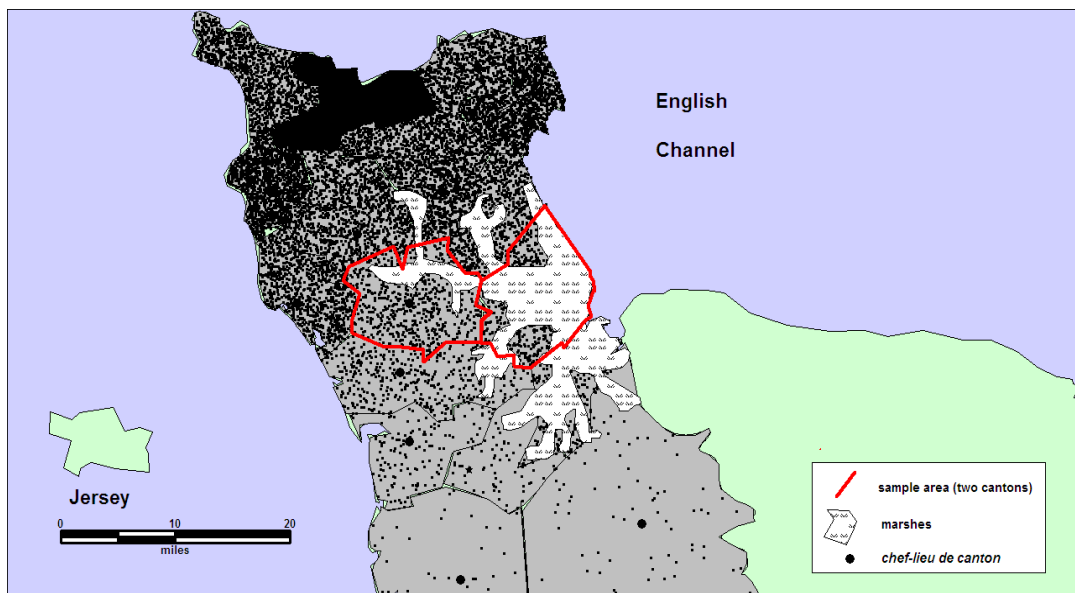
Figure 2-5
Distribution of *La Presse de la Manche* in the Cotentin.
Denser dots indicate higher circulation.
(Dots are randomly-placed and are only a measure of relative density of circulation, not
indications of individual newspaper sales.)

editions to cover an area from Calvados in the North to La Rochelle in the South: Office

de Justification de la Diffusion 2007). *La Presse de la Manche* mostly prints local news –

down to the level of individual *communes* – and, even though its name refers to the whole

Manche *département*, it concentrates very much on the Northern half of the area. The

newspaper is organised into sections by *canton*, but the only *cantons* South of the

marshes to receive detailed coverage are La Haye-du-Puits and Carentan (directly South of the *cantons* sampled in this study); also, what coverage they receive is less detailed than that given to more northerly areas. The newspaper's circulation figures tell a similar story.[6] It can be seen in Figure 2-5 that, South of the marshes, the circulation of *La Presse de la Manche* falls off dramatically. The same informant told me that, South of the marshes, the daily newspaper of choice was *Ouest France*, but no breakdown of sales figures by location is available for that newspaper.

2.1.3.5 Demography and communications

The fact that some Cotentin villages can be cut off by Winter flooding implies that those villages are isolated; the same is in fact true for most villages in the Cotentin, and certainly for the ones in this study. Each village is typically separated from the ones around it by a mile or two of fields. The isolation of the villages means that a car, or at least a bicycle, is essential, since many of the villages now have no facilities, and there is no public transport. Accordingly, many inhabitants of the area work in their own village, or a neighbouring one. Of the 46 rural people interviewed for this study who had finished their education, only 6 worked or had worked further away than the next village. Of the

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[6] Circulation figures by *canton* for *La Presse de la Manche* were obtained from the newspaper's head office on 13 July 2007.

24 rural people included in the analysis for this study, 19 had finished their education, but only 2 of those worked or had worked further away than the next village.

2.1.3.6 Saint-Sauveur-le-Vicomte

The Cotentin was always a rural area which depended on traditional industries,[7] and it has long had a reputation for being comparatively cut off from the rest of France. This study's sample area was first given easier communications with other regions when the railway came to St-Sauveur-le-Vicomte in 1884 (St-Sauveur-le-Vicomte 2006), *via* a branch-line from Sottevast to Coutances; this connected St-Sauveur to the port of Cherbourg and, in the opposite direction, eventually to Paris and the rest of the national rail network (this *via* Coutances). The railway line was never heavily used, however: even in its heyday (the 1950s) there appear to have been no more than four passenger trains in each direction between St-Sauveur and Cherbourg per day. Passenger service on the line ended in 1970, and freight service in 1980; the tracks were then removed and, since 1998, they have been replaced by a *Voie Verte* 'green track', a walking and cycling trail. As it once was before, again the only way to travel around this part of the Cotentin is by road.

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[7] This account of the industry and communications of St-Sauveur –le-Vicomte and the surrounding area relies heavily on St-Sauveur-le-Vicomte 2006.

During at least the first half of the time when the railway existed at St-Sauveur, travel by road was difficult: what is now a four-lane high-speed road from St-Sauveur to Valognes (the medium-sized town between St-Sauveur and Cherbourg, population 14,000 in 1999: INSEE 2008) was metalled for the first time only in 1928. On the more local scale, some very small roads are still not metalled, but many of those which now have a hard surface were metalled much more recently than the main road to Valognes. The state of the roads would have meant that much of the local population (those who did not live on their farms) found it difficult to travel more than a few miles from home. Even in order to use the railway, people who did not live in St-Sauveur would have had to travel there, which would have entailed having either a horse or a bicycle. If a horse was taken, the owner would have had to find somewhere to tether it while they took the train; and bicycles were not common until at least World War II (the St-Sauveur postmistress was not given a bicycle until the late 1920s, and one of my interviewees, a child during the war, recounts being amazed at the bicycles which the German occupiers brought with them). This slow rate of improvement of the roads, and the low level of railway service which was subsequently withdrawn, are mirrored by the development of telephone communications in the St-Sauveur area: the St-Sauveur town hall first had telephone service *via* an operator in 1907, but it did not have direct-dialled telephone until 1977.

In St-Sauveur itself, in the early twentieth century, there were a number of small-scale industries: most of them depended in one way or another on the river running through the town, the Ouve or the Douve. (Both names are now used, even on official maps: the river was originally the Ouve, which can be derived ultimately from Latin *unda* 'wave', and over time the French phrase *la rivière d'Ouve* 'the stream of Ouve' was reanalysed as *la rivière Douve* 'the Douve stream' (Institut Géographique National 1993; Lepelley 1999b).) The river runs from its source in the Northern Cotentin to the sea at Carentan; it has notably been used to power at least one mill in St-Sauveur (where buckwheat, wheat and other grains were milled), and to carry stone away from the now-defunct quarry and stone treatment plant in the area. Water from the river was also used in the distillery and the dairy which St-Sauveur used to contain, to such an extent that at one point swimming in the river was banned, though it has been cleaned up: a lot of fishing now takes place on the Douve, and open-topped tourist boats also ply their trade along it, taking visitors through the low-lying marshland. Most of the smaller-scale industries which St-Sauveur used to contain have now been bought by larger concerns: for example, the dairy, the Laiterie Coopérative du Val d'Ouve 'Cooperative Dairy of the Ouve Valley', closed in 1989, but some of its directors went on to found the larger area dairy cooperative Maîtres Laitiers du Cotentin 'Dairy Masters of the Cotentin', now Maîtres Laitiers de Normandie,

which now exists). There had also been another dairy in St-Sauveur, Grillard, which was bought by a larger company in 1965.

Today, St-Sauveur has five companies listed as 'industrial', functioning on four sites: two industrial plastics companies (still on a site by the Douve), a manufacturer of large industrial machinery, a supplier of building materials and a trucking company (Kompass France 2008).

2.1.3.7   Sainte-Mère-Église

Sainte-Mère-Église, the other *chef-lieu de canton* in the rural sample area for this study, is still a small town rather than a village, but it is isolated compared even to St-Sauveur. It has never been on a main railway line, though between 1907 and 1914 there was a tramway connecting it to Picauville and running along the road between the two (Fédération des Amis des Chemins de fer Secondaires 2006). Ste-Mère is also not as close to a main road as St-Sauveur is, though the road from Cherbourg to Caen and eventually to Paris passes within a few miles.

The major business of Ste-Mère since the Second World War has been tourism, since it was the first town in France to be liberated on D-Day (6 June 1944). At the beginning of June every year there are major celebrations of the anniversary at Ste-Mère, but several museums there (and in the immediately surrounding area) are open all year, since

veterans and people interested in the history of the Second World War visit the area throughout the year. The online directory of industries which lists five industrial companies for St-Sauveur (Kompass France 2008) lists none for Ste-Mère.

However, though it is smaller than St-Sauveur, Ste-Mère is still very much a local population centre (Ste-Mère had a population of 1 586 in 1999; St-Sauveur had 2 204): it has a weekly market, including livestock, and the community hall behind the town hall hosts a wide range of community activities, from musical performances to senior citizens' meetings. People come to these activities from all the villages in the *canton*, and often from further afield, since, even if their own village does have a community hall (frequent even in the smallest rural French villages, since community life is highly valued there), the population of their village may not be big enough to support regular activities. By attending senior citizens' meetings in Ste-Mère-Église, La Bonneville and elsewhere, I was able to make a number of contacts with inhabitants of the villages in my sample area, and many of them later turned into fruitful interviews.

2.1.3.8   The sample villages

It can be seen from this account that much locally-based small industry has left St-Sauveur in the course of the last century or so, even if some large concerns do remain there. The surrounding villages, in which interviews for this study were conducted, have

developed similarly, though some are now undergoing a renaissance. Until approximately 1970, it was not uncommon to find small shops and cafés in even the smallest villages in France, and many of over a certain (small) size also had a school, but this is certainly no longer true.

To take as an example the village where the majority of speakers analysed in this study were interviewed, until at least the Second World War La Bonneville had a one-room school, two cafés and a bakery in the centre of the village, as well as a café and grocery store on the outskirts. The bakery closed in 1958. After that, one of the small commercial enterprises that were left also functioned as a *dépôt de pain* 'bread carrier', supplied by another local baker; there is no exact information about when the cafés closed, but it seems (from interviews) that none of them was left by 1969. Since that time, inhabitants of La Bonneville have had to go at least as far as Pont-l'Abbé (3km / 2 miles), for any shops or services. Finally, the school closed in 1983 (children are now bussed to St-Sauveur for primary education and to Valognes, Saint-Lô or Coutances for secondary education). A further possible indication of the falling rural population is the declining number of Masses celebrated in village churches (though it can, of course, also be attributed to declining interest in religion, and the two causes are difficult to disentangle). When I first visited La Bonneville, in 2000, there was a Mass in the church there every month, and older inhabitants of the village could remember when there had been one

every Sunday; at present (2008) there is one regular Mass every year, on the church's

patronal feast-day, though if parishioners want other Masses celebrated (weddings, for

example), that can be arranged.

2.1.4 Darnétal: urban Seine-Maritime

The majority of the urban sample for this study was taken in the *commune* of Darnétal,

Seine-Maritime. Darnétal is a *commune* of 9 400 inhabitants (INSEE 2008), immediately

East of the city of Rouen. As such, it is one of the *communes* in the Agglomération de

Rouen 'Agglomeration of Rouen' (Figure 2-6), an urban area of approximately 400,000

inhabitants, which is the largest urban area in Upper Normandy, the second-largest in the

Seine Valley (after Paris), and the thirteenth largest in France (Agglomération de Rouen

2008, INSEE 2008, Hall 2007).[8] Despite the size of this urban area, some agricultural

land can be found to the immediate East of Darnétal (though it is increasingly being

bought for residential building), and some of the *commune* of Darnétal itself, away from

the town centre, is wooded and green.

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[8] Population statistics are taken from the most recent complete census of France, in 1999, or from its partial updates between 1999 and 2007. At the date of writing, the latest information is available at the INSEE website (INSEE 2008). Data from other websites has the INSEE data as its ultimate source.

Figure 2-6
The location of Darnétal within the Rouen Agglomeration
(Agglomeration de Rouen 2007)

My initial intention in this study was simply to investigate the way of speaking in Rouen

in general as a comparison with Western Normandy, though I always considered limiting

myself to a particular locality within Rouen in order to delimit my urban sample and give

it a measure of homogeneity. I chose Darnétal as the locality to concentrate on because,

quite independently of one another, two of my very early Rouen informants told me that

if I really wanted to hear an accent from the area, I should go to Darnétal. Various urban studies have given different answers to the question of whether distinct areas of the same city can be expected to have qualitatively different phonologies (Labov 1966 / 2006, Milroy 1987). Though the vast majority of my urban interviews were with Darnétalais, I also included in the final sample for analysis a small number of informants who were Rouennais but whom I had met in Darnétal. Though I did not test for this directly, my opinion is that the accent difference which certain informants perceived in Darnétal is due to class differences: the centre of the town, which is all that most non-Darnétalais visiting it would see, is almost entirely a deprived, working-class area.

2.1.4.1 History and social profile

Darnétal is a mostly working-class *commune*, which, early in the nineteenth century, was at the centre of the local fabric and milling industries, thanks to its position on two small rivers, the Robec and the Aubette. Despite its current status and reputation as a working-class place, the *commune* contains a large concentration of historic buildings, many of which were built for these industries in the eighteenth and nineteenth centuries (Darnétal 2003). At the height of the fabric and milling industries (1800-30), the Darnétal area could have contained as many as 224 water-powered industrial establishments, including mills for various substances, dyeworks, tanneries and other establishments (Centre Communal d'Action Sociale de la Ville de Darnétal 2000, Lesguilliez 1835). In 1868, it

was decreed that the water of the Robec and the Aubette should be used to provide drinking water for Rouen, into which they flow; according to David (1996: 26), by 1900 the heyday of the Darnétal fabric industries had passed, and this may have been caused by the reduced volume of water powering Darnétal's mills after that water had started to be used for personal consumption. Nevertheless, at the beginning of the twentieth century there were still up to fifty working industrial water-wheels in Darnétal (Darnétal 2004), and the fabric industries continued to make a large contribution to Darnétal's employment until about 1950, with the last big fabric manufactory, Établissements Lucien Fromage, not closing until 1976 (Centre Communal d'Action Sociale de la Ville de Darnétal 2000: 22-5).

After the closure of most of the mills, other industries (both traditional and service) came to Darnétal, but they were not fully able to take the place of the fabric industries, which had been Darnétal's lifeblood for at least two hundred years. One Darnétal informant in this study, a man of 76 years at the time of our interviews who had never lived outside the *commune*, had a career path which exemplified one of the changes in the Darnétal demographic: before the Second World War he had trained as a cotton-mill foreman, but spent very little time in that industry once he started his career after the war. Seeing that the fabric industries were declining and that the decline was likely to be terminal, after one or two years in a cotton mill he retrained in insurance and spent the majority of his

career (over 30 years) in that line of work. If asked to talk about the industries that used to be in the *commune*, the people of Darnétal (Darnétalais) often mention the Esterel caravan factory (which closed in its turn during the 1970s) and a heavy manufacturing plant (now RPA, formerly Aoustin and still referred to by that name) which is still open and extremely active. The Kompass business directory for Darnétal (accessible *via* Kompass France 2008) lists 27 businesses in the *commune* today, most of which are small industrial businesses or in the service industry, for example car repair. There are two heavy-industry plants in the *commune* – the RPA industrial pump and filter manufacturer and a manufacturer of industrial plastics – and, of the fabric industries which were once almost the only employment in Darnétal, only two clothing manufacturers remain.

Despite the number of businesses listed for Darnétal, it can be argued that the *commune* has never really recovered economically from the closure of the mills, perhaps because modern industry is far from being as labour-intensive as it was a century or more ago. Unemployment in Darnétal at the last census stood at 20.3% (INSEE 2008, reporting figures from 1999), and, anecdotally, an employee of the municipality told me during an interview that 45% of households in the *commune* were not taxable, meaning that the members of these households either are unemployed or do not earn enough to be subject

to taxes. Symptomatic of the average low level of income in Darnétal is the fact that the town centre is dominated by a large estate of social housing.

2.1.4.2   Wartime history

Like any *commune* in the German-occupied North of France, Darnétal has its stories from the Second World War, but its wartime experiences have not shaped the present-day *commune* to the extent seen in the Manche. In the rural site for this study, which was liberated by American troops, it is not unusual to see the American stars-and-stripes flying alongside the French *tricolore* outside the town hall, but I never saw an Allied flag flying on any official building in Seine-Maritime (Rouen and the surrounding area were liberated by Canadian troops in August 1944).

As did most parts of the North of France, Darnétal underwent considerable hardship during the Second World War, as a result both of food rationing and of the measures imposed by the occupying forces. Some informants told me that only Darnétal's position at the very edge of the urbanised area around Rouen saved it from suffering even more, since it was possible to go from there to nearby farms to obtain some food (illegally, because such food was not allocated as part of rations). Rouen and Darnétal were both bombed in 1944; much of the centre of Rouen was destroyed, and some older inhabitants told me stories of their personal experiences of that. Darnétal's children were evacuated

in case of Allied bombing, and bomb shelters were constructed, but the bombing was comparatively light (David 1996), and most of the town centre and its historic buildings escaped destruction. One informant told me about one particular bombing which luckily caused no fatalities: that of the Darnétal railway viaduct by the retreating German forces in 1944. The goal of the bombing was not to cause casualties but to break the railway line, which was important, then as now, mainly as a freight line carrying goods from the industrial far North of France to the Rouen area and the deep-water ports of Rouen and Le Havre (Blier 1993: 103-4). The occupying German forces therefore warned inhabitants to take shelter before the viaduct was bombed (in case the houses were damaged or demolished by falling bricks, as some were); the viaduct survived the bombing, but the place where it was repaired after the War can still be seen.

2.1.4.3   Darnétal today: 'une ville où on est bien'

Perhaps as a result of the sampling technique used for this study – I often approached potential new informants with the question *'Êtes-vous Darnétalais?'* 'Are you from Darnétal?' – many informants expressed a great personal loyalty to the *commune* of Darnétal. There were two especially telling instances of this loyalty, both from informants who were part of the final sample analysed. In one case, fairly early in my Darnétal fieldwork I met a man who answered that he *was* Darnétalais, and liked the *commune* very much; since he was unemployed and often to be found in one or other of

the town centre's cafés or socialising in the large estate of social housing, I met him often

after that, but was not able to agree a time for an actual interview until the very end of my

time in that area. At the interview, I found that this informant was not Darnétalais, in the

sense that he had not been brought up there and did not live there, but he called himself

Darnétalais, and was clearly Darnétalais in the sense relevant to him: he spent most of

every day there, he had many friends there, and he liked the people and atmosphere there.

In other words, as a working-class man he identified with Darnétal and what he perceived

as its values; he did not at all identify with Rouen, where he had been born and still lived.

Another of my interviewees – Darnétalaise by birth – also had a striking loyalty to her

commune, which she showed in a different way. She and a friend were employed as

'community liaison' (between tenants and civic authorities) by the local social housing

tenants' association, the *Association Darnétalaise de Défense des Locataires du Robec*

'Darnétal Solidarity Association for Robec Tenants' (the 'Robec' referring to the fact that

the largest social housing estate in the *commune* is called the *Parc du Robec* 'Robec

Estate', after the river). The informant felt she and her colleague were uniquely qualified

to do their job because, in her words, 'we grew up here. We have the same problems as

the people here; we're from this area […] we're at the same level as the people in this

area […] With anyone else but us, it wouldn't work'.[9] (Quotations from a newspaper interview, Donnaes 2007.) The following few lines from the interview are worth quoting in full, because they sum up precisely the feelings that many of my Darnétalais interviewees have about their *commune*, a place which has a reputation in the Rouen area of being one of its rougher and poorer parts:

> '*Darnétal: "a town where life is good"*
>
> What perspective do you get on Darnétal if, like [my interviewee and her friend], you are so deeply involved in the daily lives of its inhabitants? "People here look out for one another. Is that because it's a small town, not so concerned with other places? People feel very close to one another. To me, it's like a little cocoon", thinks [my interviewee]. "We have a nice town here; the reason why there's no housing available is that people stay here. We don't want for anything, except perhaps a bit of money … Despite what gets said about Darnétal, people don't want to leave."'[10]

The attitude displayed by these two informants was typical of many Darnétalais, whether comparatively wealthy or not (though none of my informants was rich, there was certainly a wealth difference between the different socioeconomic classes, as one might expect). The high degree of community spirit in the *commune* is also in evidence in the large number of popular communal activities organised by the town hall (my first visit to

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[9] 'On a grandi ici. On a les mêmes problèmes que les gens d'ici; on est du quartier […] On est au même niveau que les habitants de ces quartiers […] Avec d'autres que nous, ça ne marcherait pas.'

[10] 'Darnétal, « une ville où on est bien »: Quel regard porter sur Darnétal quand on est, comme […], impliquée à ce point dans le quotidien de ses habitants? « Les gens, ici, sont très solidaires. Est-ce parce que c'est une petite ville, un peu enfermée? Les gens sont très liés. Pour moi, c'est comme un petit cocon », estime […]. « On a une bonne ville : s'il n'y a pas de logements, c'est parce que les gens restent. Il ne manque rien, à part un peu d'argent, peut-être… Malgré ce que les gens disent de Darnétal, on ne veut pas partir. »'

Darnétal was for one such activity, a 'Heritage Walk' around the historic buildings of the *commune*, which was attended by about thirty people despite beginning at 8.30am on Saturday); the Sunday morning market is also extremely popular. Darnétal is the *chef-lieu* of its *canton*, a largely rural *canton* which stretches East from the *commune* of Darnétal and covers 19 *communes*, most outside the Agglomération de Rouen (INSEE 2008). One interviewee described the market to me as 'a real *canton* market', meaning a market to which people would come from anywhere in the *canton* (a possible distance of 20km / 12 miles) in order to shop – anything can be bought, from food to children's toys and clothes – and, more importantly, in order to socialise. In addition, the market did not close until the early afternoon, so that people who had been to Mass at the adjacent church could shop afterwards. I was able to make two interview contacts in the market myself, as well as seeing there other friends whom I had first met elsewhere; one of the contacts I made in the market was a town councillor who never missed the opportunity that the Sunday market gave him to canvass, since he knew that the market would give him the week's biggest potential audience for his party's political tracts.

2.2 Interviewing procedures

2.2.1 The fieldwork period

Most interviews in this study were carried out in the academic year from September 2006 to June 2007; a small number of La Bonneville informants had been interviewed in 2005, but most of these were re-visited during the main fieldwork period in 2006-7. I spent September 2006 and November 2006 – March 2007 in the Rouen area, and April – June 2007 in La Bonneville.

During the fieldwork period, almost 140 potential informants were interviewed, the intention being to sample as widely as possible in order to have the largest possible pool of potential interviewees to analyse. For some interviewees, it became clear during their interview that they did not fulfil all the criteria necessary in order to be included in the study: most commonly, I had been told (or an informant had said) that they were from the area in question, but they proved not to be. Of these 140 potential interviewees, 65 were interviewed in La Bonneville and approximately 75 in the Rouen area.

The sample was constructed in slightly different ways depending on the site. In La Bonneville, I was able to use something like a friend-of-a-friend approach, at least in the actual village of La Bonneville, where around half of my interviews took place: I am familiar to many people there, since my parents have owned a house there since 2000 and

I visit it frequently. In addition, a number of friends in the village – some of whom had lived there for nearly twenty years – asked their family and friends whether they would be willing to be interviewed by me.

In the other villages in the rural sample, and in Darnétal, I had to take a different approach, since I was not known in those places (at least at first). In all these locations, I approached potential informants by involving myself in local activities and so getting to know the other participants. The best source of information about local events was the local newspaper in each site.

Previous experience had taught me that church congregations were often good places to recruit potential interviewees, since members of congregations are generally well-disposed to helping other members, and indeed my sample in both La Bonneville and Darnétal contains people whom I met through going to Mass with them; in Darnétal I became a cantor at the church in the centre of town. I also recruited informants by showing an interest in local history in both places: as has been said above, my first contact with Darnétal was at a local history walk there, and one of my rural informants is the president of *Picauville Se Souvient* ('Picauville Remembers'), an association devoted to creating and preserving Second World War memorials and commemorations. Other activities I attended included the *Club du Mardi* ('Tuesday Club'), a coffee morning for unemployed women and housewives in Darnétal (where I became quite an attraction, as

the only man, and carried out a few interviews in the office upstairs); the Darnétal town council's committee on architectural heritage, where I became a member; and the *Atelier de la Mémoire* ('Memory Workshop') in Ste-Mère-Église. I attended this last event because I thought, from the name, that it would be a discussion of local history among people who had actually lived through it, but in fact it was a public, quasi-therapeutic session of memory exercises for older people having some difficulty with their short-term memory. Nevertheless, the organisers were willing to help me, and circulated a sheet for potential interviewees to sign, after I had explained my project (and left the building, so that no-one would feel pressure to sign up): I returned at the end of the session to pick up the sheet and found that I had three interviewees.

Finally, I obtained quite a few interviews in Darnétal (where I was completely unknown) by simply doing what I thought of as 'being present in the community': not, in fact, doing very much, but making certain that, if I had no interview and no other activity planned, I was physically *in* the centre of Darnétal every day, whether drinking coffee in one of the three cafés in the centre (where I did become quite well-known), or shopping in the market on Sunday, or simply going from shop to shop in the main shopping street and asking the employees whether they were actually *from* Darnétal and would be willing to be interviewed. In this way, I got to know quite a few people and established my credibility as someone who was actually interested in the community, rather than just

coming to interview and having as little contact with people outside interviews as possible. Similarly, I introduced myself to the headteachers at the two local schools, and obtained permission to interview a number of pupils in their lunch-hour. This technique of obtaining interviews by being immersed in the community inevitably led occasionally to a few slow hours, but the time thus invested in making contacts paid off eventually in interviews and recommendations from locals I had met. I was very seldom refused an interview in either La Bonneville or Darnétal.

At some point during all my interviews, I asked the interviewee whether they could recommend anyone else that I might contact, and this produced further interviews in a few instances, though most of my informants were recruited by the more direct contact described above.

2.3   Social variables in the study

Within each site, interviewees were divided by sex, and into four age-groups and four socioeconomic class (SEC) groups.

2.3.1   Social variable: site

The descriptions in the first part of this chapter give extensive details of the two study-sites, but it should be mentioned that not quite all of my Rouen-area interviews were carried out with Darnétalais, though most of them were. This outcome was always likely,

given the location of Darnétal at the edge of Rouen. Though the vast majority of my interviews took place in Darnétal, in some instances informants who were not in fact Darnétalais but Rouennais have been included in my sample, if there were no Darnétalais interviewees to fill a particular cell. Chapter 6 below ('Maps and Attitudes') gives further details of the local residents' perception of the difference or similarity between the ways of speaking in Darnétal and in Rouen: most informants did not specify that there was a particular 'Darnétal accent', but Rouen (both the town and the area surrounding it) was very commonly identified as an accent area.

2.3.2 Social variable: age-groups

The four age-groups in the study were as shown in Table 2-2.

Age-group	Reason for age-group
>69 yrs	One of the research questions for this study is to investigate the type and extent of the influence of the Norman substrate on the Regional French of Normandy. Informants of 70 years old or more (especially in the rural site) could be expected to have spoken some Norman at least in their childhood; in fact, most rural speakers in this age-group, and some younger ones, still spoke it within the community. Informants of 70 years old or more were mostly born in 1936-7 or earlier (1935 or earlier for those who were interviewed in 2005). Such informants were also of an age to be able to remember the Second World War, though few had actually fought in it. This was also the only age-group whose members had all retired (the average retirement age in France is a little under 60yrs (Ministère du Travail, des Relations Sociales, de la Famille et de la Solidarité 2008).
45-69 yrs 20-44 yrs	The 20-44 yrs age-group and the 45-69 yrs age-group between them cover the majority of working life for most informants. The split between these age-groups was chosen simply in order to make the two age-groups cover equal spans of years.
<20 yrs	The boundary between the first two age-groups in this study was placed at 20 yrs in order to place everyone still in education in the youngest age-group. In the French educational system, pupils who do not do well enough in a given school year are simply required to re-take the year, so it is not uncommon to find students still at school at at least 19 years old. Of course, many pupils leave school well before they are 20 years old, since education is obligatory in France only until the age of 16 years (Ministère de l'Éducation Nationale 2006). After leaving formal obligatory education, many French students (particularly in my rural study-site) begin an apprenticeship or other kind of training which cannot formally be classified as employment, so the boundary between education and career can be difficult to define, but a boundary at 20 years captured in the youngest age-group all informants who were still in education.
	The youngest interviewee during my fieldwork period was in fact a nine-year-old girl, but the youngest one included in the final sample was a 15-year-old boy; his voice had broken, so I could be reasonably certain that he was old enough to have acquired what would become the basis (and most of the detail) of his adult phonology.

Table 2-2
Age-groups for this study

2.3.3   Social variable: Socioeconomic Class (SEC)

Interviewees were classified into four SEC groups using an index constructed from an

Education score and an Occupation score, on the same principle as the three-category

index constructed in the Philadelphia Language Change and Variation project (Labov 2001: 61). The third category used in the LCV project's SEC index was value of residence; this category could not be used in the present study because I did not see the homes of all interviewees. Education and Occupation scores were given according to the criteria in Tables 2-3 and 2-4, and an informant's scores were added together to produce their SEC score.

The attribution of education scores was straightforward, taking care to take account of when the informant had been born, because of the changes in the school-leaving age in France during the twentieth century. Children who had not yet finished their education were not given an education score; since they also did not have an occupation, they clearly could not be given an overall SEC score in their own right; they were therefore put in the same SEC group as their parents (if their parents were interviewed), or in an SEC group appropriate for the occupations of their parents.

The attribution of occupation scores required more thought, not only about the nature of each informant's employment, but also to a certain extent about the informant him- or herself: for example, it is not clear *a priori* how much status to attribute to a farmer, given that there can be different levels of professionalism involved in that occupation. In this sample, I attributed two occupation points (of a possible six) to a farmer who worked on

Points	Level of education completed	Explanation
1	Primary education	Informant completed only primary education (did not get *Certificat d'Études* 'Certificate of Studies', formerly the basic certificate of education in the French system). Particularly in the rural site for this study, it used to be common for children who needed to go to work on farms to leave school once they had been awarded this Certificate. The examination for the Certificate could be taken at any age from 11 up.
2	Secondary, but informant left school before end of next obligatory period of education (see below)	Informant started secondary education (which should have been obligatory) *but did not complete it*
3	Informant completed first stage of secondary education (left school at the end of obligatory education)	The end of obligatory education varied according to the age of the informant. Age was therefore taken into account when SEC points for education. • For informants born before 1922 (aged over 83 in 2005 / 87 in 2007), education was obligatory up to age 13 or until the *Certificat d'Études* had been taken, whichever came first (the *Certificat* could be taken from age 11) • For informants born 1923-1943 (aged 61 in 2005 / 63 in 2007), education was obligatory up to age 14 • For informants born after 1943 (aged up to 60 in 2005 / up to 62 in 2007), education is obligatory up to age 16
4	Up to CAP or bac	Informant took one of two types of examination usually taken at age 18 or 19: • the *Certificat d'Aptitude Professionnel* 'Certificate of Professional Aptitude', a qualification in a particular trade aimed at training the holder for that trade – usually known as a CAP /se a pe/; or • the *baccalauréat* 'baccalaureate', an academic certificate awarded in various broad areas of studies ('Humanities', 'Sciences', etc) – usually known as a 'bac'
5	Tertiary education	Informant did some tertiary education (whether or not a degree was completed)

Table 2-3

Educational categories for this study

Points	Occupation type	Examples
1	Unemployed	
2	Blue-collar – unskilled	(Urban) cleaner (Rural) farmer (not owner of own farm); milk-tanker driver
3	Blue-collar – skilled	(Urban) pharmacy medication-preparer (Rural) care-worker; roofer
4	White-collar, lower level	(Urban) journalist, or office-based mid-manager (Rural) nurse; psychiatric care-worker
5	White-collar, higher level	(Urban) butcher (owner of his business); pet-parlour owner and operator (Rural) Farm owner, manager and operator; haberdashery owner
6	Professional	(Urban) teacher; laboratory biologist (Rural) Web entrepreneur; nuclear technician

Table 2-4
Occupational categories (Labov 2001: 61), with examples from this study

a farm he did not manage, but five to a farmer who also owned and managed his farm. On

the other hand, the La Bonneville roofer in my sample, a highly competent professional

and the owner of his business, was only attributed three occupation points; this was in

large part not because of his actual job but because of his attitude towards the La

Bonneville community, and the fact that he had had a comparatively long education (to

the age of 16, whereas many people in the sample were not educated for as long). His

comparatively high educational score meant that giving him an occupational score

appropriate for the owner of a business (usually five points) would have put him in the

Lower Middle Class group: all his friends were working-class, and he clearly did not see

himself as a member of any professional class, so it seemed more appropriate to give this

informant an occupational score which would put him in a SEC group with which he would agree.

People who did not work but could not be classified as unemployed – school pupils, or non-working spouses such as farmers' wives – were usually given the same occupational score as one of their parents or their working spouse, respectively. Using this method, most children still living with their parents were attributed to the same SEC group as their parents, and most non-working spouses were attributed to the same SEC group as their spouse. The exception to this tendency was when children were university students and still lived with their parents (fairly common in France, where it is common to go to a University close to one's home). None of the students in this study had parents who had also been to University. In these cases, the higher educational score accruing to the student meant that they were often attributed to a higher SEC group than their parents.

Once education and occupation scores had been given to all the interviewees in the sample, the scores were added together to give each interviewee's overall SEC score. The overall range of SEC scores was then divided into four approximately equal bands to give four SEC groups for the sample, as shown in Table 2-5.

SEC points	Socio-Economic Class group
10-11	Upper Middle Class
8-9	Lower Middle Class
6-7	Upper Working Class
< 6	Lower Working Class

Table 2-5
Socioeconomic Class groups for this study

I considered attributing SEC groups differently in each site, as a way of taking account of the different social make-up of the two sites, but this proved not to be necessary. T-tests showed that the two sites were not significantly different from one another in overall (two-category) SEC, when Education and Occupation were combined. Nor were their Occupation scores significantly different, though their Education scores were significantly different at $p = 0.02$, the urban site having an average Education score of 3.9 and the rural one having 3.4. The two sites were therefore taken as being sufficiently similar to be judged on the same SEC scale, which also has the advantage that direct comparison between equivalent SEC groups in the two sites is possible.

2.4 Selection of informants for inclusion in the final sample

The final sample of informants whose interviews were coded and measured contained 48 interviewees – 24 from each site – selected to fill as evenly as possible a grid containing both sexes, four age-groups and four SEC groups in each study-site. The grids were not completely evenly filled; the final sample is shown in Tables 2-6 and 2-7.

	<20 F	<20 M	20-44 F	20-44 M	45-69 F	45-69 M	>69 F	>69 M
UMC		LAB24				LAB47		
LMC	LAB12	LAB17	LAB48	LAB45	LAB50	LAB08	LAB44	LAB27
UWC		LAB23	LAB13	LAB16	LAB34	LAB42	LAB41 LAB11	LAB32
LWC		LAB07		LAB14	LAB21	LAB22	LAB02	LAB09

Table 2-6
Rural sample by sex, age-group and SEC group

	<20 F	<20 M	20-44 F	20-44 M	45-69 F	45-69 M	>69 F	>69 M
UMC	ROU13	ROU32	ROU30	ROU24	ROU08	ROU50	ROU49	ROU37
LMC		ROU54	ROU12	ROU63	ROU18	ROU58		
UWC	ROU29			ROU51	ROU65	ROU57	ROU61	
LWC	ROU25		ROU41	ROU64	ROU45	ROU14		ROU59

Table 2-7
Urban sample by sex, age-group and SEC group

Due to pressures of time, this study's sample grid is filled with only one informant per cell. In each cell, if there was a choice between two of more informants to fill a particular cell, the informant with the better interview was preferred: this could be because the interview was longer (giving more data), or because one informant did not complete all the Formal Methods but another did (some informants had difficulty reading), or because

the sound-quality was better in one interview than another. Clearly, a sample with more than one informant per cell would be more representative of the communities sampled; future work on this corpus will use speakers who have not yet been coded in order to fill cells with more than one informant.

The gaps in the sample as shown in tables 2-6 and 2-7 were accepted as indicative of the nature of the population in my two study-sites. In table 2-6 (the rural sample), the Upper Middle Class is almost completely absent, and this is taken to reflect the fact that many of my rural informants were or had been farmers, or had worked on the land in some capacity. In particular, white-collar professionals were almost absent there (and this is the type of person who would be most likely to be classified as UMC, because they would score highly for both employment and (potentially, at least) education). The only Rural UMC informants in my sample were therefore LAB47, a farmer turned wine entrepreneur, and his seventeen-year-old son LAB24.

In the urban sample (table 2-7), the biggest gaps were in the central SEC groups (Upper Working Class and Lower Middle Class). This can be interpreted as an indication that middle-ranking professions were scarce in Darnétal: and indeed, my informants tended to have or to have had either on the one hand a high-scoring, professional job (and the education that had allowed them to get it), or on the other a low-ranking, possibly menial job and a correspondingly low level of education.

One further feature of the sample remains to be explained. In the rural sample, there are two UWC women in the >69yrs age-group, LAB41 (Mathilde Le Roy) and LAB11 (Marthe H.).[11] These were two sisters-in-law, the oldest people in the sample at 86 and 89 years old respectively. They had been friends and lived in the village of La Bonneville together for almost their whole lives. Marthe H., whom I had known for longer than I had known Mathilde Le Roy, was one of my most talkative and willing interviewees, and Mathilde agreed to be interviewed only on condition that Marthe could also participate (not because she mistrusted me but because that would allow her to talk more freely). Of all the recordings I made in this study, the conversation I recorded between Marthe H. and Mathilde Le Roy is the one where the regional French is hardest to tell apart from Norman. Finally, Mathilde Le Roy was the oldest representative of four generations of the Le Roy family who live in their village, all still in houses almost within sight of one another; since I wanted to interview all the generations of the family in order to be able to do an apparent-time study on them in future work, I exceptionally included both Marthe H. and Mathilde Le Roy in the sample, even though they had the same social attributes, so that only one of them would have been sufficient to fill that cell.

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[11] Both names given here are pseudonyms. 'Marthe H.' is given only a first-name pseudonym and the initial of her family name, as was my usual practice; 'Mathilde Le Roy' is given pseudonyms for both names, since I wish to refer to her family as a whole.

2.5 Recording in this study

Recordings in this study were made in a location of the interviewee's choosing, in order to put them at their ease as much as possible; it was made clear that quiet locations, were preferred. Most were made straight to digital (.wav) format on a Marantz PMD671 portable solid-state recorder at a sample rate of 22.05kHz (16-bit). One of two microphones was used:

- an Audio-Technica Pro 70 cardioid condenser lavalier (lapel) microphone for most interviews

- an Audio-Technica ATM10a omnidirectional table-top microphone where more than one speaker was being interviewed at a time.

The lapel microphone, attached to the speaker's clothing as close to their mouth as possible (typically on their shirt collar or the neck of their sweater) was preferred, for the obvious reason of clarity of recording, which is particularly important for phonetic analysis, particularly when F3 is also needed (as it is for the Bark-difference metric used here). However, in some cases it was impractical to use a lapel microphone, such as at group interviews and on the rare occasions when the speaker was uncomfortable with wearing a lapel microphone. On these occasions, the table-top microphone was used, and

use of the adjustable recording level on the Marantz recorder ensured that the sound-quality was still as good as possible.

Those interviews which were carried out in 2005 were recorded on a Sony MZ-R700 minidisc recorder with a Sony ECM-717 lavalier microphone; the recordings were subsequently digitised in the University of Pennsylvania Linguistics Laboratory.

All recordings were analysed on a PC laptop computer through the Praat phonetic analysis program (Boersma & Weenink 1992-2007) (see §2.7 below, 'Vowel-coding in this study', for analysis settings within Praat).

2.6   Interview protocol

The interview protocol for this study was fairly fixed, in that the components were usually in the same order in all interviews, though I did not insist that all interviews should be exactly the same, because I considered that an interview at which the informant was relaxed and therefore (theoretically) producing more informal speech was more valuable than an interview where all the elements were 'present and correct' but the informant was not relaxed and so did not produce relaxed speech. Each interview consisted of a fairly lengthy period of conversation, almost unguided apart from when I asked for personal, biographical information, followed by a number of more formal

linguistic and dialectological tasks. These are referred to later in this dissertation as 'Formal Methods'.

Most interviews in this study were individual (*i.e.* with me interviewing just one informant); a few were with pairs of informants. In the analysis for this study, these two types of interview have not been differentiated, though it could be interesting in future to investigate whether informants' speech in interviews with paired informants was markedly different from speech in interviews with single informants. We might expect (Labov 1981: 8-9) that speech in interviews with paired informants would be less formal than speech in interviews with single informants.

The average length of interviews in this study was approximately 1.5 hours (including both unguided conversation and Formal Methods), though it could vary widely; few interviews were under an hour long, and the longest were over three hours. At the longest, an interview would contain the following elements, in the following order:

1. ***Unguided conversation*** (1 hour or more, depending on the interviewee's willingness to chat): talking with the informant about themselves, their job, local events, or whatever else they seemed interested in, in order to put them at their ease

2. ***Word-list*** (less than 5 minutes): a list of 31 words, designed to elicit very formally-spoken tokens of variables known to be of interest in the Regional French of Normandy.

3. ***'Sentence-blanks'*** (10 minutes): 33 sentences with tokens of variables of interest embedded in them, and a gap for the interviewee to fill (orally); the intention is to have them produce tokens of interest without concentrating on the token (since they will instead be concentrating on the gap they have to fill).

4. ***Reading passage*** (10 minutes): a passage of 1 page (416 words), written by me to include tokens of variables of interest; the passage is about the liberation of the Manche *département* and is written in the style of a popular history-book.

5. ***Acceptability judgements on double complementisers*** (5 minutes): a set of ten sentences containing the *wh*-words *quand* 'when', *où* 'where', *'pourquoi* 'why', *qui* 'who', *comment* 'how': an example of each in single-filled-COMP construction (standard) and an example of each in doubly-filled-COMP construction (*wh*-word + *que* 'that'). Informants were asked to rate these sentences on a scale from 1 *très mauvais français* 'very bad French' to 5 *très bon français* 'very good French', and then to cover their ratings and say whether they would themselves say each of the sentences, in a relaxed conversation.

6. ***Map tasks*** (length determined by interest of interviewee): interviewees were given a map of France, blank except for the names of several large cities, and asked to draw isoglosses around places where the people spoke 'differently'. They were then asked to do the same on a map of Normandy.

The materials used for these Formal Methods are included in this dissertation as Appendix A. They are presented first as the interviewees saw them, and second with a key showing tokens of variables of interest.

Not all informants completed all parts of the interview listed here. When selecting the 48 informants whose tokens of the phonological variables would be measured, as far as possible I selected informants who had been recorded in Interview style (unguided conversation) and in some Formal Methods, but it did not prove possible to select 48 informants who were well-distributed across the grid of social variables and had all recorded both Interview and Formal Methods speech:

- LAB24 and LAB50 were not recorded in Interview style, since they both took part in paired interviews and did not speak enough to get a good sample, and it was not possible to revisit them to record them again;

- ROU25 and ROU29 were not recorded in Interview style, since they were two of the schoolchildren I had to record during a break in their school-day, which did not give enough time for a long recording;

- LAB27 was not recorded in Formal Methods style, for lack of time (our interview was interrupted);

- LAB09 and LAB41 were not recorded in Formal Methods style because they did not wish to read and be recorded (both are in the >69 age-group).

Among the informants who were recorded in Formal Methods style, not all completed exactly the same tasks, sometimes for lack of time and sometimes because an informant told me they would rather not complete a specific task. As a minimum, all informants who recorded some Formal Methods read the word-list and the reading-passage, and these were the materials coded for analysis as 'Formal Methods style'.

For two informants – ROU64 and ROU65 – the Formal Methods materials which they recorded were different from the rest of the sample, though they fulfilled the same purpose. Instead of reading the word-list and reading-passage which I wrote for this study, these two informants read the word-list and reading-passage for the Projet 'Phonologie du Français Contemporain' (Durand, Laks & Lyche 2002, 2005), since I was also carrying out the Rouen interviews for that project, at the same time as doing my own

fieldwork. Since the PFC word-list and reading-passage contained enough tokens of my two phonological variables, I considered that they could be thought of as equivalent. The unguided conversation for the PFC project is done in the same way as the unguided conversation for my study, and so can serve for both. These two informants did not complete the double-complementiser acceptability judgements or the map-tasks.

2.7   Vowel-coding in this study

For each of my vowel variables, I coded (measured) 120 tokens for which I had the auditory impression that they were long enough to provide a clear location for coding. Coding was carried out from the original digital recordings of interviews, using Praat (Boersma & Weenink 1992-2008); the versions used were version 5.0 and one previous version, since version 5.0 was released during the analysis phase of this work. Formants were detected using Linear Predictive Coding analyses, usually with Praat's default setting of 5 formants (10 poles) in the relevant frequency range, though the number of poles was decreased to 9 or 8 poles if too few clear formants were detected at the 10-pole setting. The 'relevant frequency range' over which the specified number of poles was applied was 0-5000Hz for male speakers and 0-5500Hz for female speakers (Boersma & Weenink 1992-2007: Manual, Frequently Asked Questions on Formant Analysis).

Since the French of France does not have (at least phonemic) offglides in its vowels, vowels were measured at one point. The following three possibilities for a measurement point were considered, in this order:

1.   as close as possible to the middle of a steady state in the formants;

2.   at a point of inflection in F1;

3.   at a point of inflection in F2.

(*cf* Labov, Ash & Boberg 2006: 38). These criteria for measurement were searched for in the order given above, because, for any given absolute value of a frequency divergence (that is, any given absolute difference on the Hertz scale), that difference will be more perceptible in F1 than in F2, since the possible range of F1 is much smaller than the possible range of F2. There are considerable differences between different sets of reference vowels that have been established for French but, to take one example for the French of France, Durand (1985) records that F1 ranges approximately between 281Hz for /u/ and 808Hz for /a/, a range of 527Hz; F2 ranges approximately between 841Hz for /u/ and 2179Hz for /i/, a range of 1338Hz. Clearly, therefore, a difference of a given number of Hertz in F1 will cover much more of the available range in F1 than in F2.

Vowels were measured using Praat scripts adapted from a vowel-coding script by William Labov; the scripts for this study are reproduced in Appendix B.

For each of the two vowel variables in this study, 120 tokens per speaker were measured. Each variable consists of variations in the realisation of two vowel phonemes of Standard French and in their relationships to one another, so we can break down these 120 tokens per speaker as shown in Table 2-8.

Variable	(a)		(e)	
Phonemes	**a**	**ɑ**	**ɛ**	**e**
Interview style	30	30	30	30
Formal Methods	30	30	30	30
TOTAL per style	**60**		**60**	
GRAND TOTAL	**120**		**120**	

Table 2-8
Vowel tokens coded per speaker

The 30-token sample per speaker (*cf e.g.* Milroy 1987) is often adopted as a number of tokens that does not take unreasonably long to code but is a high enough number to provide a reasonable guarantee that statistical tests which profess to reveal significance really do reveal important distinctions. For example, a random error in one token out of 30 is not likely to adversely affect conclusions on significance or lack of it, since 1 / 30 is below the commonly-accepted level below which a probability is often taken in the social sciences as representing a significant difference: 0.05, 1 / 20. Indeed, sometimes the large number of tokens coded for each variable here could lead to the opposite problem: differences which did not appear large in a vowel-plot could be shown to be statistically significant, with $p \leq 0.05$.

An ideal sample of these dimensions should therefore produce (48 speakers x 120 tokens

=) 5 760 tokens per variable for each of the two vowel variables. However, some

speakers did not produce both Interview and Formal Methods data, or did not produce 30

tokens in one of the styles; conversely, for one or two speakers, more tokens were

measured (because they were also included in another project which required more data),

and these extra data were included in the present project as well. The final Ns for each

variable were therefore as shown in Table 2-9.

	(a)	(e)
N	5 740	5 078

Table 2-9
Vowel-tokens measured in the study

In the most general case, where a speaker was only interviewed once, coding was started

seven minutes into the interview. This time-limit for the beginning of coding was chosen

on the basis that the average interviewee takes approximately seven minutes to stop being

noticeably self-conscious about the recording situation (Labov, p.c.). If a speaker was

interviewed more than once (some speakers in the rural area were interviewed twice or

even three times, in interviews in 2005 and 2007), later interviews were preferred on the

basis that the speaker was more familiar with the interviewer on the later occasion; this

was likely to be so because all the speakers who were interviewed in these two years

were residents of La Bonneville, where I visit my family house twice a year on average,

and where I am well-known in the community. Even in these cases, though, the rule of starting coding seven minutes from the beginning of the interview was still observed in most cases, to give the interviewee time to possibly forget about the microphone.

2.8   Normalisation

Since one of the research questions for this study pools the data in order to compare groups with different social characteristics, the data require normalisation. A wide range of normalisation techniques exists, each more or less appropriate for a given data-set depending on the characteristics of that data-set (see Adank 2003, Thomas & Kendall 2007, and references in both). This study does not include tokens of all the vowels of French but only of the phonemes of interest (/a ɑ ɛ e/), and that fact makes the majority of normalisation techniques unsuitable for use here, since they would result in distortion of the relationships between different phonemes, to such an extent that it might outweigh the distortion introduced by anatomical differences (the very distortion which we are normalising to avoid), and thus annul the effect of the normalisation.

The pooled data in this study were normalised using the Bark Difference Metric as implemented in *NORM, The Vowel Normalization and Plotting Suite* (Thomas & Kendall 2007). The Bark scale upon which this metric is based is a perceptual scale based on critical bandwidths: the idea that specific bands, regions of the basilar membrane,

respond to specific frequencies (Fastl & Zwicker 2007: 149ff). Experiments advancing in

constant step-sizes along the basilar membrane, and plotting the increment in frequency

maximally responded to at each point compared to the last (Fastl & Zwicker 2007: 159),

have shown that 24 such critical bands can be added to one another end-to-end along the

basilar membrane, dividing it into regions of maximal response for all pitches up to the

approximate limit of human hearing (16kHz). The Bark scale is therefore divided into 24

Bark. Since critical bandwidth does not increase linearly with increasing frequency, 1

Bark corresponds to fewer Hertz at lower frequencies than at higher ones (Figure 2-7,

Table 2-10).
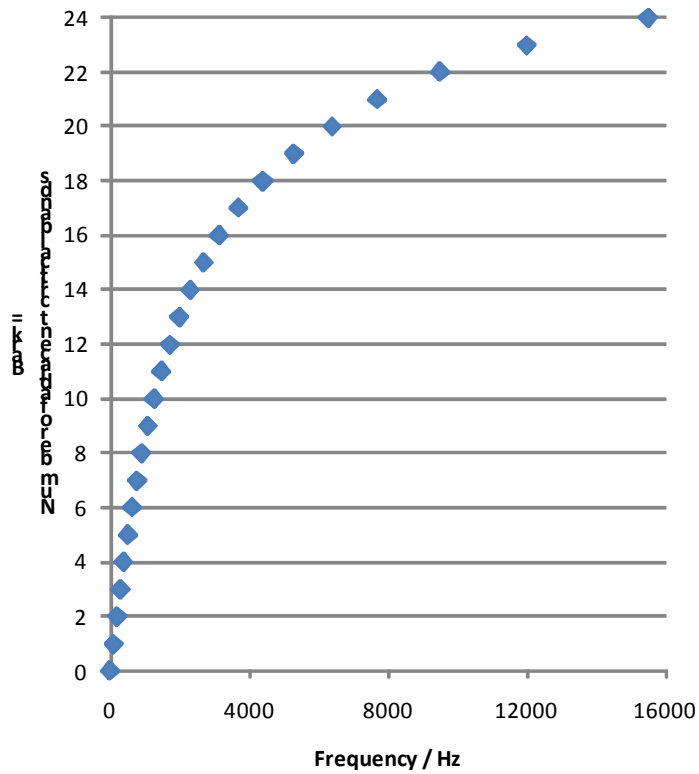
Figure 2-7
Bark rate plotted against frequencies in Hertz
(from Fastl & Zwicker 2007: 161)

Bark	Hertz	Bark	Hertz
0	0	13	2000
1	100	14	2320
2	200	15	2700
3	300	16	3150
4	400	17	3700
5	510	18	4400
6	630	19	5300
7	770	20	6400
8	920	21	7700
9	1080	22	9500
10	1270	23	12000
11	1480	24	15500
12	1720		

Table 2-10
Critical bands (band number = Bark rate), with the Hertz frequencies to which they are
sensitive (from Fastl & Zwicker 2007: 160)
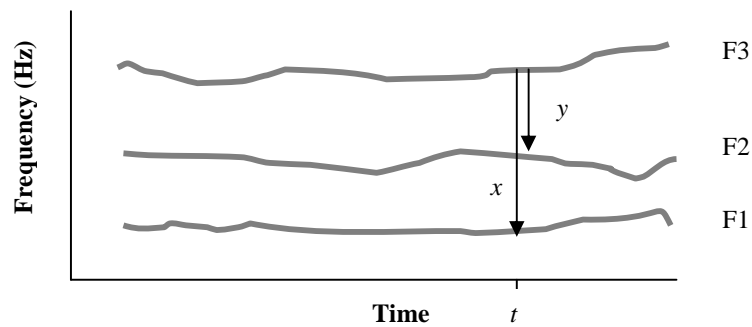
Figure 2-8
Schematic spectrogram showing calculation method for Bark Difference Metric normalised
values for F1 and F2 at time *t*
(distances *x* and *y* are measured simultaneously at time *t* but separated here for display purposes)

In Adank (2003)'s classification, the Bark transform is both vowel-intrinsic and formant-intrinsic. This means that the Bark value calculated for any given Hertz value does not depend on any values from other tokens of the vowel (so it is vowel-intrinsic) or on any values from other formants in the same token (so it is formant-intrinsic). The Bark transform of each formant's value is therefore a mathematical transformation of that formant's Hertz value; the equation used in the NORM suite (and so for the Bark values used in this study) is published in Traunmüller (1990), and is also given in Traunmüller (1997) and Thomas and Kendall (2007).

In order to map Bark values onto a space with dimensions which will be familiar to readers used to looking at F1 / F2 spaces plotted in Hertz, Thomas & Kendall (2007) use a Bark difference metric to approximate the height and advancement dimensions (where Zx is the Bark-transformed value of formant *x*:)

- height is plotted using (Z3-Z1) [a higher figure indicates a higher vowel] - distance *x* in Figure 2-8

- advancement is plotted using (Z3-Z2) [a higher figure indicates a backer vowel] - distance *y* in Figure 2-8

Therefore, since a normalised value depends on distance of the first or second formant from the third formant, and F1 is by definition at a lower frequency than F2, normalised values for F1 (distance *x*) will always be greater than normalised values for F2 (distance *y*). Normalised F1 will therefore appear vertically above normalised F2 in a Bark Difference Metric graph where the normalised versions of both formants are displayed, as in Chapters 3 and 4.

In other studies, other Bark difference mappings have used different combinations of Bark-transforms to map vowels: transforms of f0 in some calculations, and/or (Z2-Z1) for the advancement dimension. It can be seen in Figures 2-9 and 2-10 that, for the two pairs of vowels this study is concerned with - /a ɑ/ and /ɛ e/ - the Bark-transform and this Bark difference metric preserve the spatial relationships between the vowels fairly well: both
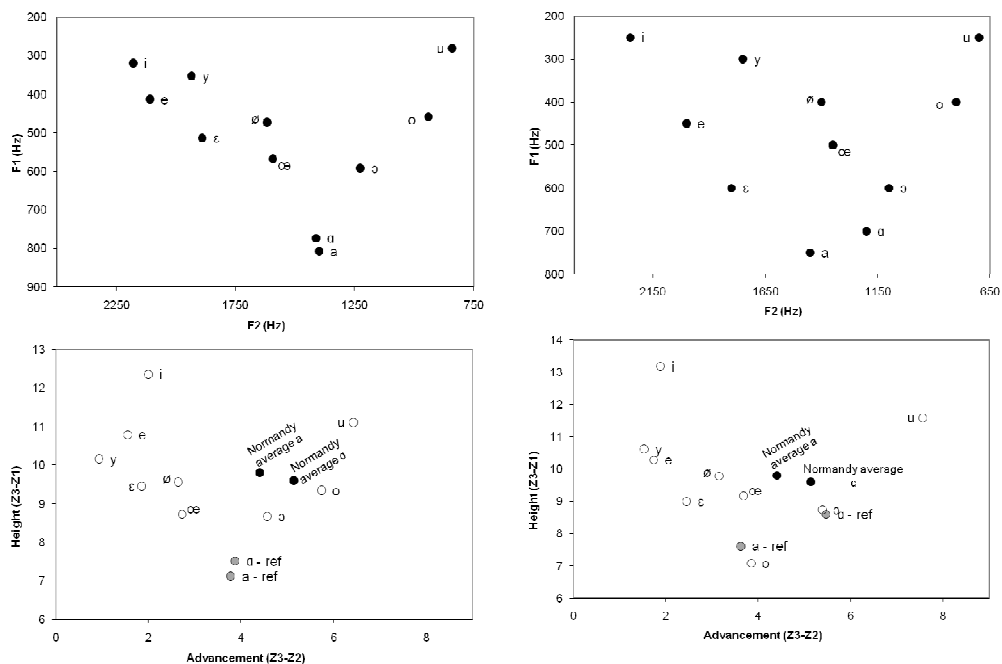
Figure 2-9
top: unnormalised Hz reference values for the oral vowels of the French of France (Durand 1985, as quoted by Arnaud 2006: 173)
bottom: Durand (1985)'s values with Thomas & Kendall (2007)'s Bark difference metric

Figure 2-10
top: unnormalised Hz reference values for the oral vowels of the French of Canada (Martin 1996, as quoted by Arnaud 2006: 173)
bottom: Martin (1996)'s values with Thomas & Kendall (2007)'s Bark difference metric

Legend		
Hertz charts (top)	●	reference vowel (all vowels)
Bark charts (bottom)	●	average /a ɑ/ in Normandy sample
	●	average /a ɑ/ in set of reference vowels
	○	other vowels in set of reference vowels (not /a ɑ/)

systems show /ɑ/ backer and higher than /a/ and /e/ fronter and higher than /ɛ/, though each pair is brought closer together by the Bark-transform.

A comparison of various different sets of (Hertz) reference values for the vowels of French, and their Bark-normalised equivalents, has brought to light the interesting fact that, in many cases, the normalised /a ɑ/ tokens from the Normandy subjects of this study lie closer to their normalised Canadian equivalents than to their normalised French equivalents (Figures 2-9 and 2-10). On each Bark chart, the relevant means from the Normandy speakers in this study are plotted for comparison with the normalised reference values. Especially for /ɑ/, it can be seen that the average value in this Normandy sample is much closer to the Canadian /ɑ/ (bottom right figure) than to the French /ɑ/ (bottom left figure).

2.9   Statistical analysis in this study

The statistical comparison of sets of vowel measurements in this study (by t-tests) was carried out using a number of Python scripts written by the author (Python Software Foundation 2001-2007); they are reproduced in Appendix B. These scripts were able to carry out the necessary analysis instantaneously. Analysis of the morphosyntactic variable (que) and of the data from maps and attitudinal questions was carried out 'manually' (*i.e.*

without the use of scripts or macros) in Microsoft ® Excel ® (Microsoft Corporation 2006).

2.10   Data storage in this study

All the sound-files recorded in this study were stored in two locations: a Packard Bell Store & Save 2500 (a 120GB external hard drive), and one recordable CD per interview. The copies on the external hard drive were used during analysis; the CDs were kept as a backup.

Chapter 3 The vowel variable (a): /a/ and

/ɑ/

3.0   Organisation of the chapter

The following chapter deals with the first vowel variable in this study, the variation

between the pronunciations [a] and [ɑ] in contexts where very conservative French uses

[ɑ] (for historical or synchronic phonological reasons). The variable will be called (a).

The chapter will therefore begin with a review of the history of (a). This will be followed

by a presentation of this study's Normandy (a) data, analysing it first phonetically and

then phonologically. The chapter will conclude with an interpretation of the data in

sociolinguistic theory.

3.1 History of (a)

Any excursion into the history of the sounds which can be notated by French orthographic <a> is a complex story, and turns out to be as much, if not more, about historical sociolinguistics as about historical phonology and phonetics. Through the history of the language, the difference has been made:

- in terms of quality (/a/ → [a] contrasting with /ɑ/ → [ɑ]);

- in terms of quantity (/a/ → [a] contrasting with /ɑ/ → [aː]); and even

- in terms of both (/a/ → [a] contrasting with /ɑ/ → [ɑː]).

Today, conservative authorities consider /a/ and /ɑ/ two phonemes of French, which is a statement about their linguistic, structural status – hence the notation – but in fact, chronologically, during most of the history of French there has been only one ' "a" sound'. This fact, and the current situation (in France, at least) of variable merger of /a/ and /ɑ/, gives theoretical justification to the decision of some authors (*e.g.* Martinet 1945, Jamin 2005) to represent both with the archiphoneme /A/; this convention will also be used in the following discussion.

3.1.1 /A/ in Latin

In the evolution from the vowel system of Latin to those of the Romance languages, Romance did not inherit Latin phonemic vowel length, so there was a change from a quantity-based system to a quality-based one in the early centuries of the present era. Exactly when the change took place is a subject for debate. Haudricourt & Juilland (1970: 32-3) argue that in general it was 'around the third century', though they note that the Latin of what was then Gaul may have preserved some vowel-quantity distinctions until the sixth century, on the evidence of Old English and Gaulish borrowings from Latin. Nyrop (1967: 169) adduces evidence from the grammarian Servius that the change must have been taking place by at least the fourth century. For /A/, Pope (1952: §§182, 666) states that, by the early Gallo-Roman period, which she dates from roughly the late fifth century, Latin *ă* and Latin *ā* had given simply *a*.

3.1.2   /A/ between Latin and Modern French

By the end of the Old French period (around the beginning of the fourteenth century for Pope) and into Middle French, then, Latin monophthongal /a/ seems to have the reflex /a/ in most environments (Pope 1952: §666; Pope gives details of the exceptions).

A period then follows in which commentators distinguish different realisations of /A/ by quantity and generally not by quality, insofar as we can interpret their comments

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unambiguously. These different realisations arise from sound changes happening in the

environment of the /A/ in question. Mettas (1979: 89) lists some of the attested changes

as

'falling-out of syllable-final *s*, contraction of two syllables in hiatus (*eage / âge*, *gaagne / gagne*, etc.), simplification of the former geminate *-rr-*, denasalisation of the vowel before an intervocalic nasal consonant, etc'.[12]

Mettas (1979: 86) notes that, until the beginning of the eighteenth century, treatises on

French did discuss vowels in terms which recall the ones used with more precision later –

'open', 'closed', 'nasal' and so on – but this early discussion is often made unclear by the

lack of a standard way in which to use these terms, and by the confusion between letters

as depictions of sound and letters as orthography. Further, as far as /A/ specifically is

concerned, during this period until the early eighteenth century, commentators seem to

give conflicting reports about whether or not there is a quality distinction between the

two variants they note. In the sixteenth century, Robert Estienne uses a circumflex to

differentiate *châsse* 'reliquary' from *chasse* 'hunt' (both noun and verb); Walter (1976:

46) takes this as an indication that a qualitative distinction was present. At the same time,

however, Théodore de Bèze and Ramus explicitly note that there is no difference in the

sound of the two realisations of /A/, but only in their length. All of these authors were

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[12] 'Effacement de *s* implosive, contraction de deux syllabes en hiatus (*eage / âge*, *gaagne / gagne*, etc.), simplification de l'ancienne géminée *–rr-*, dénasalisation de la voyelle devant consonne nasale intervocalique, etc.'

writing about 'French' as a monolithic whole, and did not take account of any regional

distinctions, since their whole enterprise was to establish the concept of a single, pure

French language; there undoubtedly were regional distinctions in the pronunciation of the

language, but in the texts of grammarians such as these they do not survive.

3.1.3   /A/ in Modern French

The first explicit and specific analysis of quantity as distinct from quality in /A/ (and

other vowels) is usually taken to be that of Boindin, probably written around 1709 ,

though not published until later (Walter 1976: 48; Mettas 1979: 90). After this time,

commentators start to mention both quantity and quality in their analyses of /A/; by the

end of the eighteenth century and into the nineteenth, the previous primacy of quality is

reversed, and vowel length is only mentioned as a feature accompanying *gravité*, which

we can translate in modern terms as 'backness' (Morin de Clagny 1852: 20, quoted in

Walter 1976: 49). It is interesting, though, that the connection between vowel length and

vowel backness is reflected in the notation that Morin de Clagny used for his *a grave*

'back *a*': $\bar{a}$ with a macron, which is more standardly used for length, even though the

author was explicitly talking about backness and not length.

It was also in the early- to mid-nineteenth century that commentators first began to write

about the loss of distinction between the two realisations of /A/ (the earliest such

commentator written about by Walter (1976) is Sophie Dupuis in 1835). In the twentieth century, of course, the fact of making this distinction or not making it, and of how it is made if it is made at all, has attained great social significance. Various studies until 1976, when Walter was writing, and in general since the end of the Second World War, document what appears to be a general tendency in most regions of France for /a/ and /ɑ/ to be merged to fronter /a/. Mettas (1979: 102-3) notes some reactions to a clear distinction between /a/ and /ɑ/, and more generally to the pronunciation of a clearly back /ɑ/: a clear distinction is a feature of an *accent faubourien* 'working-class Paris accent', as also noted by Delattre; [ɑ] is 'rarer, more Parisian, more distinguished and more literary',[13] as earlier noted by Bruneau (1931: 79); Malmberg (1969) notes that too much use of [ɑ] is 'likely to provoke a negative reaction from a French interlocutor ([that the speaker is] ridiculous, a yokel, a pedant, etc, according to the situation)';[14] people who use [ɑ] are likely to be considered 'snobbish', according to the (separate) works of Delattre and Léon. More recently, Jamin (2005) has found highly prevalent use of [ɑ] among some of the working-class young people he has studied in the Paris suburbs, and has suggested that the young people who have high rates of [ɑ] use may have adopted this once-local feature, which until then had been falling off in use, as a symbol of their local

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[13] 'L'*â* est plus rare, plus parisien, plus distingué et plus littéraire'.
[14] '[un] emploi exagéré du *a* postérieur [est] susceptible de provoquer une réaction négative de la part d'un interlocuteur français (impression ridicule, rustique, pédante, etc. selon les cas)'.

identity, in much the same way as the young Vineyarders in Labov's Martha's Vineyard study (Jamin 2005: 228).

3.2   /a/ and /ɑ/ in contemporary France

3.2.1   Normative texts

Normative texts on the phonemes of French – for example, lists in the prefaces of dictionaries – usually list two low vowels, /a/ and /ɑ/ (Mansion 1980: xxvi (Harrap's *Standard*); Atkins, Duval & Milne 1987: xxv (*Collins-Robert*); Robert 1989: xxi (*Le Robert*)). The examples given are often designed to contrast /a/ with /ɑ/ in two of the environments where /ɑ/ is most often preserved, if it is preserved at all: final (therefore stressed) open position where the vowel was historically followed by /s/, now silent but still written (*bas* 'low' / 'stocking'); and in a closed syllable where the vowel was historically followed by /s/ and is now marked by a circumflex, since the <s> is no longer written (*pâte* 'paste'). Robert (1989) contrasts these examples with *plat* 'flat' and *patte* 'paw' for /a/.

3.2.2 Descriptive texts

3.2.2.1   Descriptive texts: phonology

As far as the distinction between /a/ and /ɑ/ is concerned, descriptive texts on the present-day phonology of the French of France seem to be of two persuasions. In his landmark study of educated men from all parts of France, the first study of its type, Martinet (1945: 72) states that 'with most subjects, the phonetic difference [between /a/ and /ɑ/] is much less considerable than the difference made between the two *o*s [/o/ and /ɔ/] or the two *eu*s [/ø/ and /œ/], for example'.[15]   He is thus careful not to say that the distinction is disappearing, and his later work bears this contention out. Martinet & Walter (1973: 32) mention an opposition of quality, /a/ contrasting with /ɑ/, which they say is tending to replace or supplement an older quantity distinction (/a/ contrasting with /aː/), such that words now in the /ɑ/ class may be pronounced [ɑː], longer than phonemes pronounced [a]. The body of Martinet & Walter (1973) is a survey of the pronunciation of approximately 50,000 words by seventeen informants; a brief survey of words containing (normative) /ɑ/ indicates that the informants were often split into two groups of approximately equal size, one for whom /ɑ/ is realised as [ɑ] and one for whom /ɑ/ is realised [a]. Martinet (1974: 125ff), in his article 'Pour un dictionnaire de la

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[15] 'Chez la plupart des sujets, la différence phonétique [entre /a/ et /ɑ/] est bien moins considérable que celle qui est faite entre les deux *o* ou les deux *eu*, par exemple'. Insertions in square brackets are mine.

prononciation' ('In favour of a pronunciation dictionary'), restates the position that a quality distinction is tending to replace the quantity distinction between /a/ and /ɑ/; he also remarks that, whereas all the subjects from his 1945 study had said they distinguished the two phonemes, a third of the young Parisian women surveyed by Reichstein (1960) no longer made any distinction between them.

For a number of other recent authors, however, the distinction between /a/ and /ɑ/ is at best unstable. It is important to consider them in chronological order, since it is apparent that the realisation of the /a/ ~ /ɑ/ opposition (where it is realised at all) has evolved even in the relatively short time since the Second World War. Different authors view the instability in different ways. Delattre (194x: 13-16), writing a pedagogical text probably just after the time of Martinet (1945),[16] includes both /a/ and /ɑ/ in his depiction of the vowel space, but already implies that a distinction of quantity rather than one of quality (at least in closed syllables) is the most usual realisation of the distinction between them at the time of his writing. However, it is also likely that there are sociological differences between Delattre's community of observation and Martinet's, which may well influence the way in which the distinction is realised. Delattre's text is a manual of instruction for American students, and we can assume that the norms described there are derived from

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[16] The publication is not dated, but can probably be traced to the late 1940s from its date of accession in the University of Pennsylvania library (1950).

the author's own observations about unmarked pronunciation by the French at all levels of society, though he does not state their source. On the other hand, Martinet's sample was made up of military officers, a population usually taken (at the time) to be made up of upper(-middle)-class men. And indeed, Martinet's (1945) and Delattre's (194x: 16) conclusions are slightly different: they agree that quantity was used more often than quality to distinguish between /a/ and /ɑ/ in closed syllables, but Martinet shows that (in his community) quality was used more often than quantity to distinguish between the two phonemes in open syllables. The open-syllable environment is not mentioned by Delattre.

Later, there is a marked shift towards considering that /a/ and /ɑ/ are not clearly or consistently distinguished at all. Walter (1977: 41-2) remarks that the /a/ ~ /ɑ/ distinction is 'particularly unstable', and concludes that while individual speakers may make consistent distinctions in their own idiolects, the loci of these distinctions are likely to vary from speaker to speaker, and these two facts have reduced the functional load of the /a/ ~ /ɑ/ distinction very considerably. Later again, the distinction is even more threatened. Tranel (1987: 62) considers that a merger-by-expansion is taking place, whereby /a/ is expanding to fill the vowel space once occupied by [ɑ]. Warnant (1987: lxxvii), while he considers that *le bon usage* 'correct usage' still demands that the distinction between /a/ and /ɑ/ should be recognised, also advises:

'Users of this dictionary should retain that, if they cannot pronounce the vowel [ɑ] fluently, it is also always correct to use a mid-range [a]' (*sc.* mid-range between [a] and [ɑ]).[17]

This is another way of formulating the proposal espoused by Lerond (1980: xii), among others, that /a/ and /ɑ/ should now both be considered part of a single archiphoneme, often denoted A. In various works, Françoise Gadet (*e.g.* Gadet 1989: 94) has also stated that the distinction between /a/ and /ɑ/ is now becoming simplified, so that both phonemes are often now realised either as the fronter of the former opposing pair – [a] – or as a slightly backed [a̠] (between /a/ and /ɑ/).

3.2.2.2   Descriptive texts: phonetics

There is a small but growing body of instrumental sociophonetic work on French in France (to supplement the vast body of laboratory-based phonetic work on French). The first instrumental phonetic study which had an explicit sociolinguistic goal was Lennig (1978), a study of the modern Paris vowel-system which formalised the techniques of examining formant measurements in order to quantify vowel-change (in any language). Lennig examined all the oral vowels of French through acoustic analysis of the speech of

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[17] 'Que l'usager de ce dictionnaire retienne que, s'il ne peut prononcer aisément cette voyelle [ɑ], il est aussi du bon usage de n'utiliser constamment qu'un [a] moyen.'

52 individuals, interviewed in Paris in 1975 and 1977. His study separates the phonemes /a/ and /ɑ/ into three classes – etymological /a/ words, etymological /ɑ/ words and *pas* (split off from other words containing /ɑ/), denoted (a), (ɑ) and (pas) respectively - and demonstrates by a series of chi-square tests that the three classes are all significantly different from one another (Lennig 1978: 81-2).

One later study to use instrumental phonetic methods for sociolinguistic means is that of Arnaud (2006)[18] on the French of St-Claude (Jura *département*, Franche-Comté *région*). Arnaud's tests are done on normalised Hertz values for F1, F2 and F3 of all vowels in the vowel space, each divided for coding purposes into classes on the basis of previous research or his own auditory impressions. As far as /a/ and /ɑ/ are concerned, in coding Arnaud divides them into 7 classes (3 for /a/ and 4 for /ɑ/), given below with his labels:

For /a/

- (af) /a/ in word-final open syllables   a / _ #

- (acvc) /a/ in word-final closed syllables   a / _C # (except syllables closed

by /ʒ/)

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[18] There are, of course, other sociolinguistic studies including /a/ ~ /ɑ/ between Lennig (1978) and Arnaud (2006), but few other studies have used instrumental measurements. Jamin (2005), for example (on which see elsewhere in this dissertation), draws some important conclusions on the relationship between /a/ and /ɑ/ in Paris, but uses only impressionistic coding of recordings.

- (aZ)   /a/ followed by word-final /ʒ/   a / _ ʒ # (a sub-class of class

                                                          (acvc), above)

For /ɑ/

- (Af)   /ɑ/ in word-final open syllables   ɑ / _ #

                                                          (except syllables of type (wA), below)

- (wA)   /ɑ/ preceded by /w/ in word-final open syllables   ɑ / w _ #

                                                          (a sub-class of class (Af), above)

- (Arsz) /ɑ/ in syllables closed by /ʀ s z/   ɑ / _ { ʀ s z } #

                                                          (except syllables of type (wAr), below)

- (wAr) /ɑ/ preceded by /w/ in a syllable closed by /ʀ/   ɑ / w_ ʀ

                                                          (a sub-class of class (Arsz), above)

These classes are partially influenced by previous phonetic work done on regional
varieties of French in general (Walter 1976) and on the regional French of Franche-
Comté in particular (Carton *et al* 1983; Konopczynski 1979, 1983, 1985). In his analysis,
Arnaud (2006: 300ff) finds that most speakers in his sample do not significantly
differentiate (acvc) from (aZ), so he concludes that all occurrences of /a/ in closed

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syllables are part of the same class, regardless of the consonant closing the syllable; he also finds that most of his speakers do not significantly differentiate (wA) from (wAr), so he concludes that all occurrences of /ɑ/ in syllables with /w/ as onset are part of the same class, regardless of whether or not the syllable is closed with /ʁ/. He notes the difference between this conclusion on the French of Franche-Comté and Walter's conclusion about the Paris vowel-system (1976: 69) that the following /ʁ/ causes fronting of /ɑ/. It is not surprising that there should be a difference between Walter's and Arnaud's conclusions: Franche-Comté and Paris are both in the historical *langue d'oïl* region of Northern France, the region where Latin developed into what is now French, as opposed to Occitan in the South – *cf* Lepelley 1999a: 26 – but, given the present state of knowledge of the precise interaction between varieties of 'r' and preceding vowels (for French in particular), there is still no *a priori* reason why we should expect both varieties to have the same reflex for /ɑ/ before /ʁ/ or /ʀ/,. In different contexts, 'r' has been noted both as raising preceding /a/ (*Darnétal* is spelt 'Dernétal' in early documents: Lesguilliez 1835) and as backing it (more usual in Canada). No particular conclusion about the accuracy of either Walter's or Arnaud's conclusions should therefore be drawn from the difference between them.

3.3   Coding of (a) in this study

As is stated in §2.7 above, approximately 120 tokens of (a) per speaker were measured: 60 in Interview style and 60 in Formal Methods style. The measured tokens included both primary- and secondary-stressed tokens; certain very common monosyllabic function-words (*à*, *la*, *ma*, *ta*, *sa*)[19] were excluded as being liable to be reduced / too short for reliable measurement, but, in general, most tokens of (a) were included as long as they presented a clear point for measurement, whether it was the middle of a formant steady state or a point of inflection.

Various lists of word-classes in which [ɑ] is pronounced, or in which the /A/ archiphoneme is interpreted as /ɑ/ (if the author uses archiphonemes), have been proposed in the literature; there is no consensus about exactly which word-classes contain /a/ and which /ɑ/. Even taking into account only fairly recent pronunciation manuals, there is a wide range of opinion. Some authors exclude /ɑ/ from the set of French vowels entirely (Delattre 1947), while others divide /a/ and /ɑ/ by both length and advancement (Léon 1966, Tranel 1987). In such a system, /ɑ/ is always long (/ɑ/ → [ɑː]), but /a/ can be either short or long (/a/ → {a aː}). For Léon (1966), the environment in which /a/ → [aː] is one of those which Dumas puts in the /ɑ/ class: /a/ with following /ʒ/, as in *rage* 'rage,

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[19] 'to' (prep.), 'the', 'my', 'your', 'his / hers / its' (all f. sg.).

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rabies', pronounced (for Léon) [ʁaːʒ]). Tranel (1987) does not list this particular environment among his examples. Dumas (1986) states that he is writing about Quebec French and not about the French of France, but his list of /ɑ/ environments was nevertheless chosen as the basis for /ɑ/-coding in this study, because it coincided most closely with the author's impressions of the Lower Normandy pronunciation of French. Thus, following Dumas, tokens were coded by default as belonging to the /a/ class, unless they fitted one of the following criteria (Dumas 1986). Tokens were coded as belonging to the /ɑ/ class if they were any of the following:

- in final position in a rhythm-group (that is, followed by a pause);

- historically long (which can be marked by a circumflex or followed by now-unpronounced orthographic <s>);

- followed by a tautosyllabic *consonne allongeante* 'lengthening consonant', /v ʁ z ʒ/;

- in the orthographic endings <-aille> or <-ail>;

- in the orthographic endings <-ation>, <-as(s)ion>;

- in the orthographic ending <-asse>.

Dumas' list for Quebec French is also very close in its detail to the examples which Liddicoat (1994: 16) gives for /ɑ(ː)/ in Jersey Norman, where /a/ and /ɑ/ are clearly separated. Since one of the working assumptions of this study was that a major contributor to RFN phonology was the Norman substrate, it seemed attractive to use a list of French /ɑ/ environments which was as close as possible to a similar list the best-documented variety of Norman. Such coincidences as this may also be evidence of the relationship which has been suggested between Quebec French and Norman French, but that question is already a well-researched one, so I set it to one side here.

3.4   An excursus: Investigating possible vowel-mergers as

(socio)linguistic variables

In this study, two pairs of phonemes which can possibly merge are investigated: /a/ and /ɑ/ in all positions (as discussed above, these phonemes are merged in the French of most of France, but can be kept separate in Normandy) and /ɛ/ and /e/ in intonational-phrase-final, stressed position (in this position, /ɛ/ and /e/ are kept separate in conservative varieties in France, but can be merged in many areas, including Normandy). The possible mergers within each of these two pairs raise the following questions:

1) What is the phonetic nature of the change in progress? That is, where in the vowel space do speakers locate are the merged phone (for those who have the merger) and the two unmerged phones (for those who do not have it)?

2) How many individuals (in the whole sample and within different sub-samples) have a merger for each pair? (Perception of merger is not investigated in the present study.)

This study is not concerned with merger *per se*: merger is of course noted where it occurs, but the question of interest here is broader: what is happening to the four phonemes of interest (phonetically and phonologically). Merger within each of the variables is only one of the possible outcomes; in fact, for (a), it is not a frequent outcome, though it is the most frequent outcome for (e). Therefore, another way of expressing question (2) above for a given variable is to ask what the differences are between the heights of the two phones, and the differences between the advancement of the two phones. (In the present study, these questions are asked separately, so we are not talking about Euclidean distance between points on the vowel space but rather about separate comparisons of two different measurements, height and advancement, both in Hertz. A technique which uses Euclidean distance between two points as a measure of vowel movement is being developed (Fabricius 2007); it would be interesting in future work to use such a technique to quantify extent of merger.)

A second, very important difference between questions (1) and (2) is that question (1) compares intra-speaker measurements, making significance calculations between /a/ and /ɑ/ for each speaker, and only comparing the results of these calculations, to answer questions of the following type: within a given group, how many speakers have a significant difference and how many do not? Question (2), on the other hand, pools speakers' measurements, to make single significance calculations between pairs of groups: for a given pair of groups, say the >69yrs rural males (measurements aggregated) and the >69yrs rural females (measurements aggregated), are the two sets of aggregated measurements significantly different? This fact means that the two questions cannot be investigated using the same figures, since differences in vowel-tract length between males and females mean that, for any given pooled data-set, the males and females will usually be significantly different from one another for the sole reason of their different physiologies. Physiological differences may therefore obscure any other systematic differences present in the data and due to age, socioeconomic status, geographical region or any other social factor investigated (Peterson & Barney 1952, Adank 2003). Before data are pooled, therefore, they must be normalised, with the goal of eliminating (ideally) or at least reducing physiological differences while preserving sociolinguistic ones. The technique by which this was done is discussed above (§2.8, Normalisation).

The data input for question (1), where acoustic measurements are not pooled but only intra-speaker comparisons are made, could in theory be measured in any units as long as they are used consistently. In this study, therefore, data in Hertz have been used in the investigations of individual speakers' treatment of each of the phonemes of interest. The positions of the two phonemes in each variable relative to each other are investigated: whether they are aligned in height (*i.e.* not significantly different in height), aligned in advancement (not significantly different in advancement), or merged (not significantly different in either height or advancement).

The alpha-level (the probability at or below which two data-sets will be considered significantly different) is set at $p \leq 0.05$, commonly used in investigations of this type (see for example Labov, Ash and Boberg 2006: 54).

3.5   The possible merger of /a/ and /ɑ/: what are the linguistic

stakes?

In all phonological studies of /a/ and /ɑ/ in the French of France, it has been implicitly taken for granted that merging /a/ and /ɑ/ in fact consisted simply in moving one or both of the means of these vowels in the advancement dimension, since 'by default' they are at approximately the same level in the height dimension. This is, for example, the implication of Lerond's advice (1980), quoted above, that one can use a single [A] sound

for both /a/ and /ɑ/. This point of view is adequate for all but the most detailed phonetic studies: many phonological studies of French reduce the bottom of the vowel space to a flat line where /a/ and /ɑ/ do in fact differ only in advancement, /a/ being low, central or front, and unrounded, and /ɑ/ being low, back and unrounded (Pope 1952: §99, Walter 1976: 30, Tranel 1987: 30). Nyrop (1967: 173) implies that /a/ can range between front and central, but none of these studies mentions a height distinction between /a/ and /ɑ/. On the other hand, no phonetic study of any variety of French that I have been able to consult has stated that (mean values for) /a/ and /ɑ/ were at exactly the same height. The height difference between the two may not be significant, but it is always present.

These facts are mentioned only in order to make it clear that, contrary to the impression that may be gained from phonological studies, there are obviously (at least) two dimensions along which /a/ and /ɑ/ can vary. (Arnaud (2006) also measures variation in F3, but that is not part of the scope of this study in its own right, except insofar as F3 is used to calculate the Bark-difference values that are used here.) In this study, then, height and advancement are considered both separately and together: it will examine 'height alignment', 'advancement alignment' and alignment in both height and advancement (*i.e.* merger). An investigation which is differentiated in this way will be interesting because, in fact, very few people in either community studied here have /a/ and /ɑ/ merged, though more have the two phonemes aligned in one or the other of the individual dimensions.

Secondly, once the existence (or not) of height and / or advancement alignment has been established, there is the question of the phonetic extent of the movement of each phoneme in each dimension. This question is especially interesting if /a/ and /ɑ/ are kept distinct, as they are by the majority of speakers in this sample. Phonetic measurement is of course done instrumentally; the scale used here is the Bark Difference Metric, as explained above.

These different ways to look at vowel data therefore give the following research questions as we consider the possible relationships between two vowels. These questions rephrase the two questions from §3.4 in more detail. For each site studied:

- *Phonologically:* how do different groups treat the relationship between the two vowels in the height dimension?

- *Phonologically:* how do different groups treat the relationship between the two vowels in the advancement dimension?

- *Phonologically:* flowing from the answers to the previous two phonological questions, which speakers / groups have mergers of the two phonemes?

- *Phonetically:* what is the relationship between different groups' realisations of the two phonemes? If the phonemes are not merged, what is the phonetic

relationship between their realisations? If the phonemes are merged, where in the phonetic vowel space is the merged realisation located?

These questions will be answered for each of the sites studied here; they will provide part of the basic data needed to address the question of whether La Bonneville and Darnétal, at opposite ends of Normandy, form part of the same speech community.

3.6   (a) in Normandy

3.6.1   Overview

The following section, on the phonetics of /a/ and /ɑ/ in Normandy, provides answers to question (1) above:

> What is the phonetic nature of the change in progress? That is, where in the vowel space do speakers locate are the merged phone (for those who have the merger) and the two unmerged phones (for those who do not have it)?

It will be seen that, despite the common perception of a 'Normandy accent', the rural and urban communities behave differently in important ways with respect to (a). If the different behaviours for this variable can be correlated with different behaviours with respect to other variables, we may consider that these two sites do not in fact form part of the same speech community (any longer).

3.6.2 Phonetics of (a)

In interpreting the following Bark Difference Metric-normalised data, it is important to note that this normalisation procedure does not make it possible to directly convert the positions back into Hertz values, in order to be able to make statements like 'in such-and-such an age-group, males and females' mean positions for /a/ differ by x Hz in height and by y Hz in advancement'. Such scalings exist for other normalisation methods, and are used with some success elsewhere (*e.g.* Labov, Ash & Boberg 2006, and in general all work done using Labov's Plotnik program (Labov n.d.), which normalises and then uses a speaker-specific Uniform Scaling Factor to convert the normalised values into something interpretable on the conventional Hertz scale). However, such a scaling applied to Bark measurements would undo the effect of the normalisation (Thomas & Kendall 2007). This situation will be improved by future improvements to Bark-normalised mapping, and / or a more wide-ranging investigation of the vowels of the Regional French of Normandy; if all the vowels in the vowel space were sampled, other normalisation techniques could be used, and a Uniform Scaling Factor (for example) could be applied so that the normalised Hertz values could be directly related to unnormalised ones. Since the analysis for this dissertation was done, a French-language version of Plotnik has been developed; in future work it will be interesting to use this program to compare French

vowel-systems using Labov's adaptation of Nearey normalisation, already used with such

success for English.

3.6.2.1   The phonetics of (a) in La Bonneville
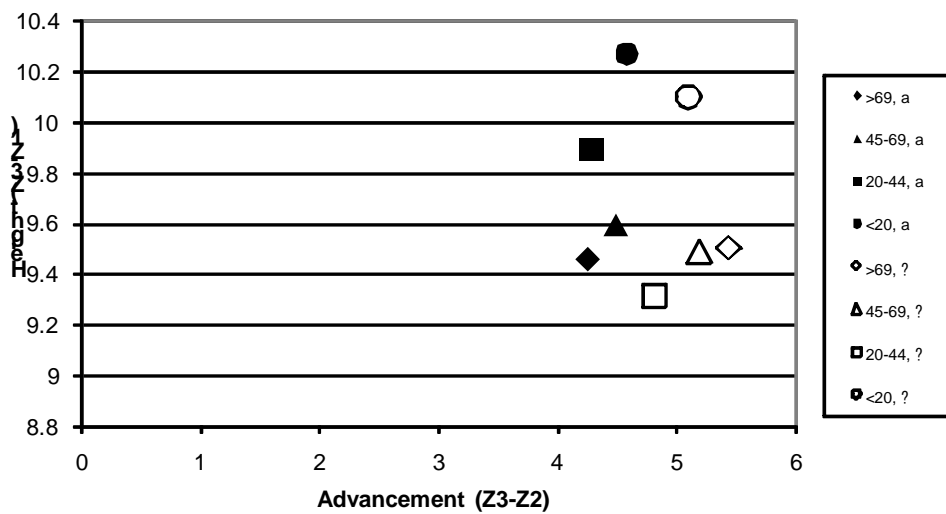
Figure 3-1

Average positions of /a/ and /ɑ/, rural site, interview style, by age-group

The summary vowel-plots which normalised measurements make possible enable us to

have a clearer view of the (phonetic) state of a speech-community than do summaries of

individual speakers' systems. NB Figure 3-1, and similar figures after it, represent a

reduced section of the vowel space, scaled up in order to make the differences between

phonemes clearer.

We can see in Figure 3-1 that, in La Bonneville, no single age-group has /a/ and /ɑ/ completely merged in interview (IV) style. It is also clear that both /a/ and /ɑ/ are raising in apparent time, and they are only significantly different in height in the 20-44 age-group
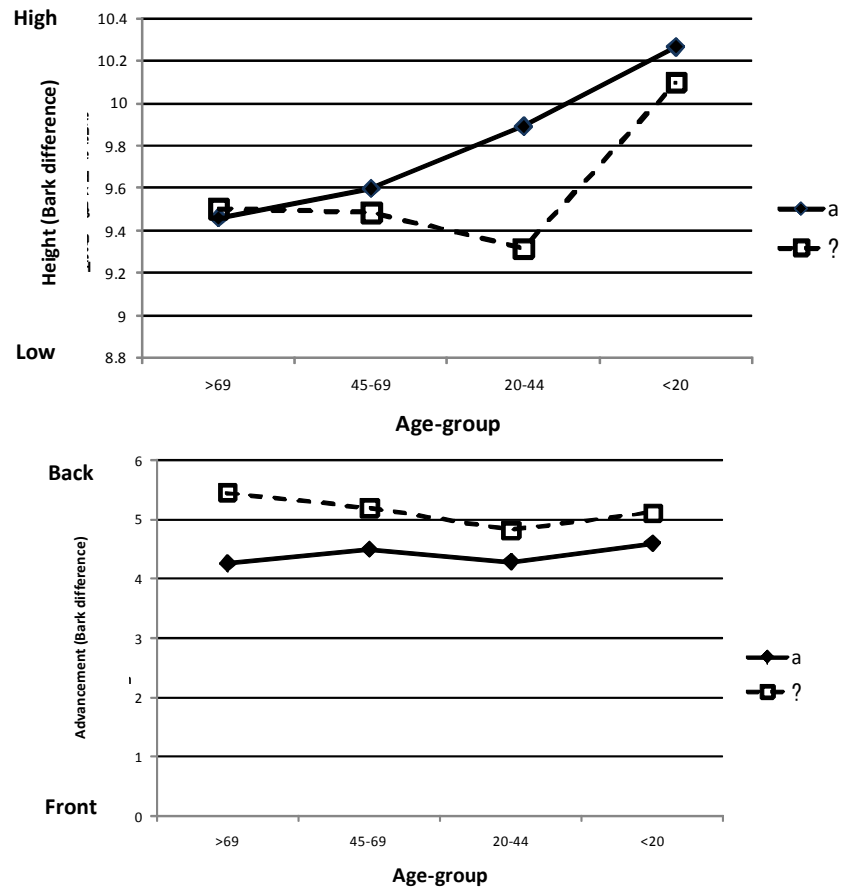
Figure 3-2
top: height of /a/ and /ɑ/, rural site, IV style, by age-group
bottom: advancement of /a/ and /ɑ/, rural site, IV style, by age-group

($p = 1 \times 10^{-5}$). Both /a/ and /ɑ/ are significantly higher in the youngest age-group than in the oldest (for /a/, $p = 3 \times 10^{-7}$; for /ɑ/, $p = 3 \times 10^{-4}$); /a/ raises monotonically in apparent time, though /ɑ/ does not (see also Figure 3-2). It is clear from Figure 3-1 that, in the rural

site, the main movement for both /a/ and /ɑ/ is in height rather than in advancement, and indeed an apparent-time graph showing only advancement in /a/ and /ɑ/ (Figure 3-2, bottom) is much flatter than the corresponding height graph (Figure 3-2, top) (though t-tests show that some of the differences between adjacent age-groups are significant, the advancement graph is still much flatter). The corresponding graphs for Formal Methods (FM) style (Figure 3-3) are very similar: again, both /a/ and /ɑ/ raise in apparent time between the oldest and the youngest groups (though for /ɑ/ the raising between oldest and youngest is not significant, thanks to a significant drop between the >69yrs age-group and the 45-69yrs age-group).
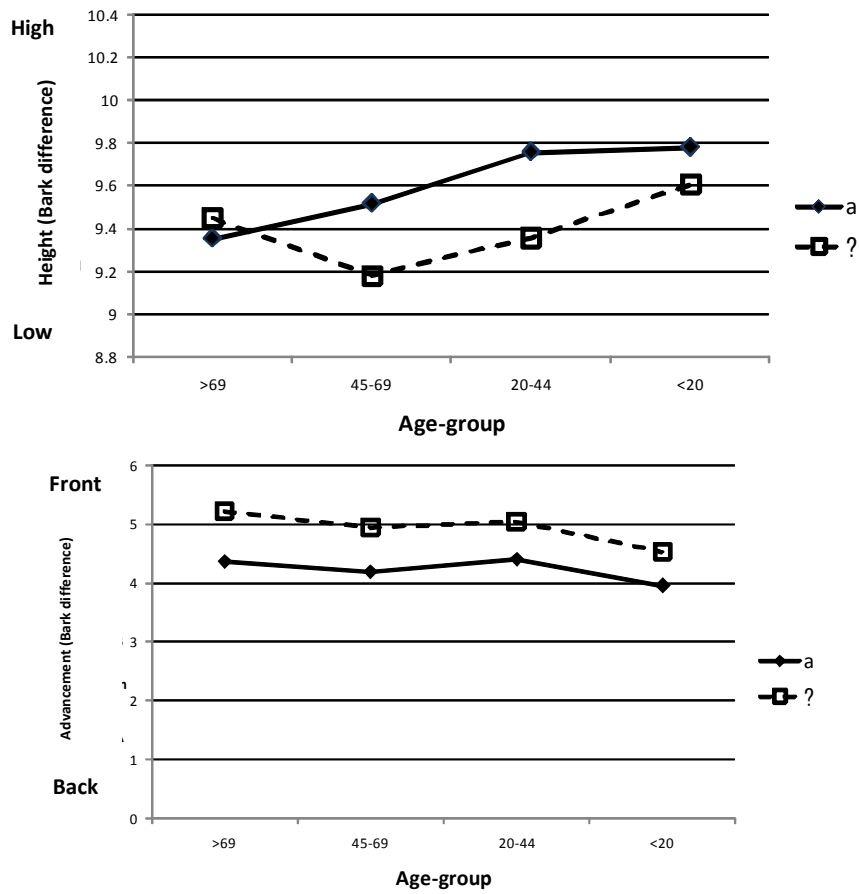
Figure 3-3

top: height of /a/ and /ɑ/, rural site, FM style, by age-group

bottom: advancement of /a/ and /ɑ/, rural site, FM style, by age-group

Division of the rural sample by sex and class shows that the raising movement of /a/ is led by lower-class males. In IV style, /a/ is significantly higher for LWC males than for LWC females ($p = 1 \times 10^{-6}$), while in the other classes that could be measured, the difference between the sexes is not always significant. (UMC could not be tested between the sexes, since only one rural speaker was classified as UMC; for UWC, between the

sexes $p > 0.05$, not significant; for LMC, males had a lower /a/ than females at $p = 0.03$, but this technically significant difference may not be important, given the small size of the sample). In FM style, unusually, the speech community's behaviour was more systematic than in IV style: in at least LWC ($p = 2 \times 10^{-6}$) and LMC ($p = 3 \times 10^{-4}$) males had /a/ significantly higher than females; in UWC, males also had /a/ higher than females, but, though significant, this difference was probably not actually important ($p = 0.04$).
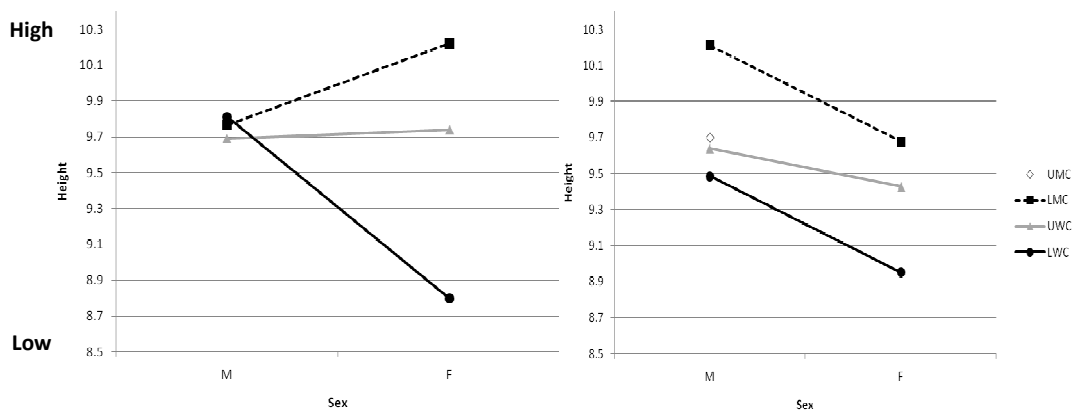
Figure 3-4
right: height of /a/, rural site, IV style, by sex
left: height of /a/, rural site, FM style, by sex

This pattern is replicated for /ɑ/: in IV style, the males' /ɑ/ was higher than the females' by the greatest margin in the LWC ($p = 0.004$), while in the LMC the males' /ɑ/ was actually lower than the females' ($p = 0.01$); in the UWC, the difference was not significant. Again, in FM style the community's behaviour was more consistent: in all three classes where a difference between the sexes could be measured, males had a higher

/ɑ/ than females, though the difference was not significant in the UWC (LWC: $p = 5 \times 10^{-6}$; UWC: $p > 0.05$; LMC: $p = 8 \times 10^{-5}$).

In the advancement dimension, splitting the sample by socioeconomic class shows a similar effect to splitting it by age: the trends between males and females of the same
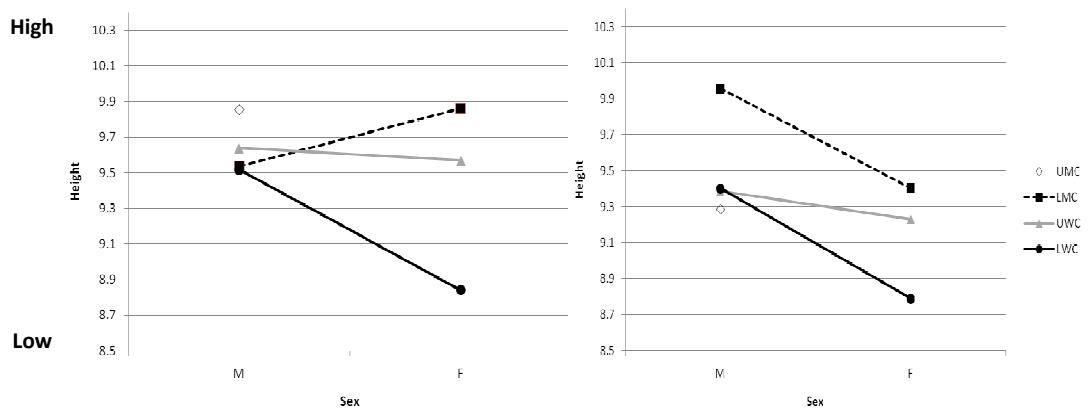
Figure 3-5
right: height of /ɑ/, rural site, IV style, by sex
left: height of /ɑ/, rural site, FM style, by sex

SEC are much flatter. For both /a/ and /ɑ/, in both IV and FM styles, most trends fail to achieve significance.

Figures 3-2 and 3-3 show uncontroversially that the main movement in (a) is that both phonemes involved, particularly /a/, are raising in apparent time, and Figures 3-4 and 3-5 show that the change seems to be led by the LWC. This interpretation of the data would also fit with our interpretation of the data for question 2 (§3.4) on the prevalence of mergers: Figures 3-4 and 3-5, above, show that in our rural community the tendency

towards raising is led by lower-class males (though not, in fact, the lowest-class males: the leaders of the tendency towards raising seem to be not LWC males but UWC males). At this point, we can introduce some data which will help to interpret the change in (a) in theoretical terms: does it come from above or below? If the SEC groups are not separated out by sex, it appears that both /a/ and /ɑ/ are generally lower with lower social class. In IV style, the drop is monotonic (Figure 3-6); in FM style, there is a clear peak in the LMC but, over the whole sample, both /a/ and /ɑ/ are lower in the LWC than in the UMC (Figure 3-7). We must have some caution about the data, since there is only one UMC speaker in IV style in the sample, and only two UMC speakers in FM style; this is a reflection of the makeup of the rural community. However, having said this, the most obvious interpretation of the pattern shown here is that the raising of both /a/ and /ɑ/ is acting like a change from above (being subject to hypercorrection by the Lower Middle Class in formal styles). Such a pattern may seem surprising at least for /a/, since its raising is far below the level of consciousness (it is never commented on), but it may be explained by a transfer of the sociolinguistic attributes of /ɑ/ to /a/: the realisation of /ɑ/ is certainly above the level of consciousness in France today, though its backness rather than its height is the attribute commented on. We will return to this way of interpreting the change in progress in (a) in the discussion of the variable's phonology.
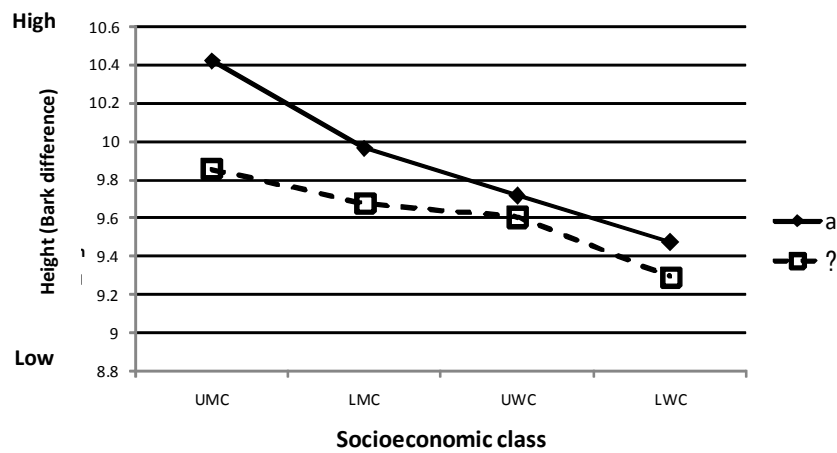
Figure 3-6

Height of /a/ and /ɑ/, rural site, IV style, by socioeconomic class
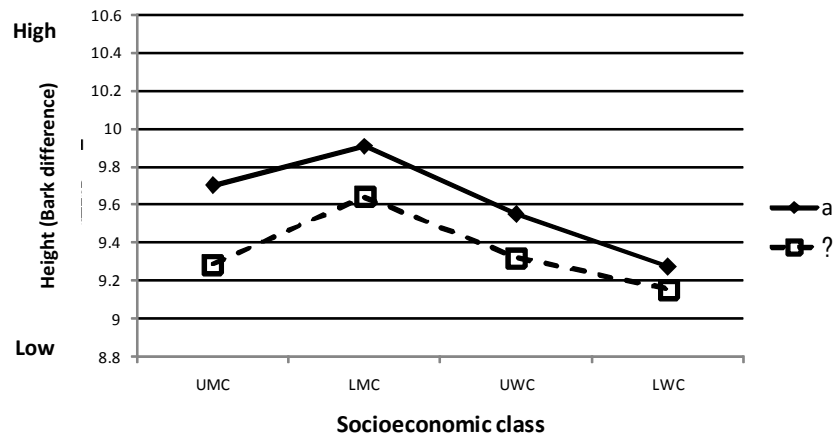
Figure 3-7

Height of /a/ and /ɑ/, rural site, FM style, by socioeconomic class

3.6.2.2   The phonetics of (a) in Darnétal

In Darnétal, as in La Bonneville, no single age-group has /a/ and /ɑ/ completely merged

in IV style, and it is clear that both /a/ and /ɑ/ are raising in apparent time. Darnétal

speakers are generally keeping the two phonemes more separate than are La Bonneville

speakers, however: in the height dimension, the only age-group which does not have both

dimensions of /a/ and /ɑ/ significantly different is the >69yrs age-group in IV style, which
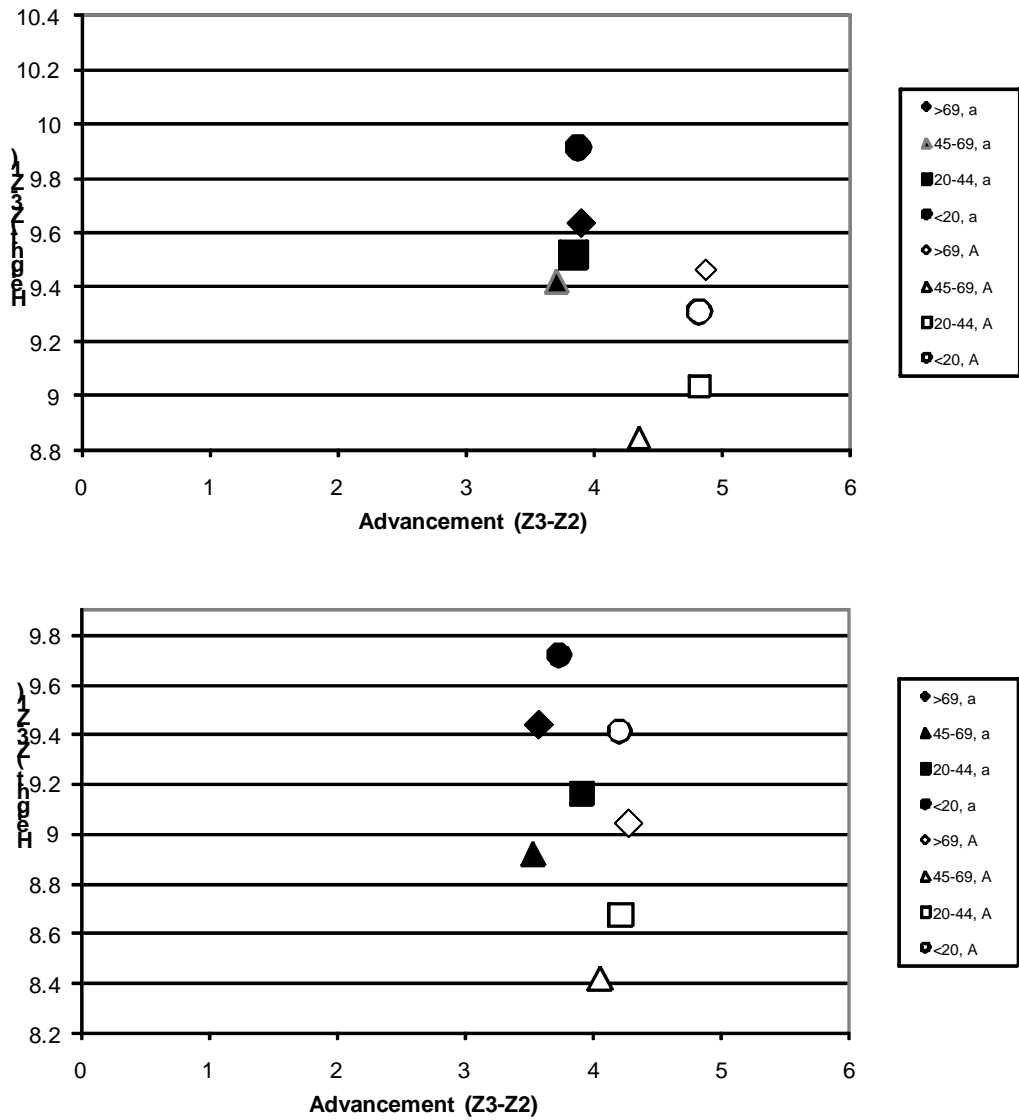
Figure 3-8
top: average positions of /a/ and /ɑ/, urban site, IV style, by age-group
bottom: average positions of /a/ and /ɑ/, rural site, FM style, by age-group

does not have a significant height difference between the phonemes. This is unsurprising

if we believe that the main change in progress for (a) at present is that /a/ is being raised;

we would expect to find the least-advanced state of the change in the oldest age-group, and indeed we do. (Recall, too, that the usual phonological descriptions of Standard French have /a/ and /ɑ/ differing only in advancement, not in height.) In FM style in Darnétal, /a/ and /ɑ/ are significantly different in both height and advancement in all age-groups, which may reflect a kind of hypercorrection on the part of the oldest age-group, since we have seen that they do not keep the two phonemes significantly different in height in IV style.

It seems, then, as if all age-groups in the Darnétal sample keep /a/ and /ɑ/ a more-or-less constant distance apart. But there is a further interesting difference between our two samples' treatments of (a) in the height dimension. In La Bonneville, /a/ rises monotonically in both IV and FM styles (and /ɑ/ rises overall between the youngest and the oldest age-groups, but not monotonically between them); in Darnétal, in the height dimension of (a), there is a curvilinear pattern in both IV style and FM style. The pattern can be seen more clearly in Figure 3-9, which separates out the height dimension (analogous to the graphs in Figure 3-2 for La Bonneville).

In each of the curves in Figure 3-9, the two middle age-groups in the sample have
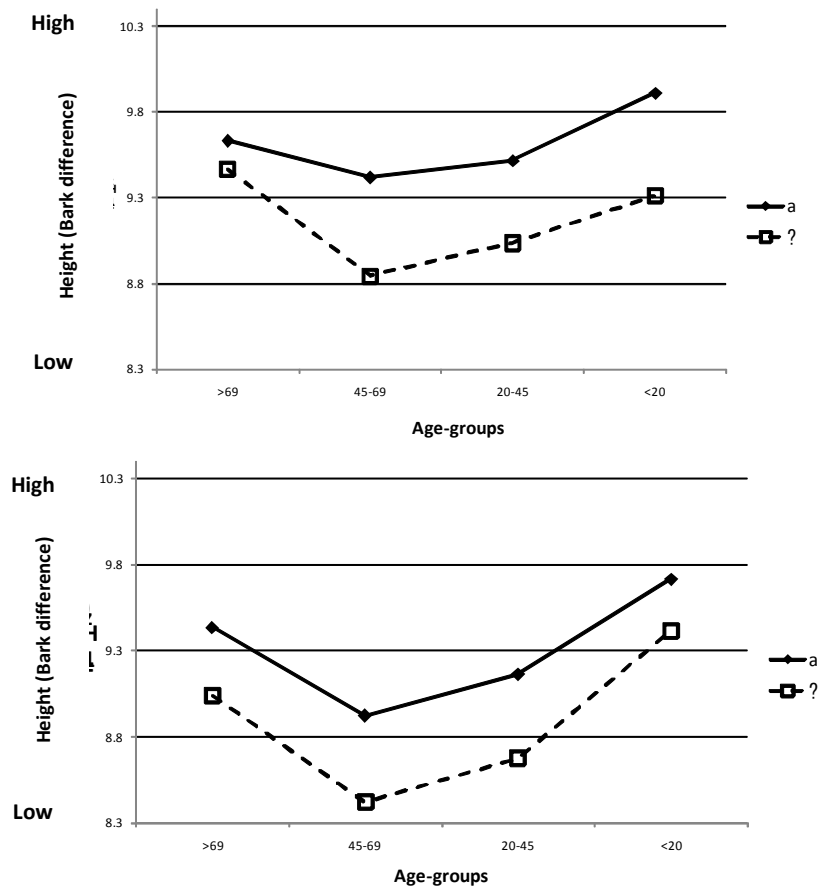
Figure 3-9
top: height of /a/ and /ɑ/, urban site, IV style, by age-group
bottom: height of /a/ and /ɑ/, urban site, FM style, by age-group

significantly lower /a/ and /ɑ/ than do the youngest and the oldest age-groups, while the

youngest and oldest age-groups are either not significantly different (for /ɑ/ in IV style)

or do not achieve significance by a wide margin (other curves: in IV style, the <20yrs

age-group has /a/ significantly higher than the >69 age-group, at $p = 0.02$; in FM style,

the <20yrs age-group has /a/ significantly higher than the >69yrs age-group at $p = 0.02$, and /ɑ/ significantly higher at $p = 0.01$). We may call this a curvilinear pattern in age.

As originally formulated, the curvilinear pattern was found in data divided by SEC (Labov 1972: 294-5; Labov 2001: 32-3), and was interpreted as showing that language change usually did not originate in the 'exterior' classes of a society (usually LWC and UMC, though some studies' upward bound for SEC has been the Upper Class instead of the Upper Middle Class). Instead, change originated in the 'interior' classes between these (UWC and / or LMC). The results of the Philadelphia Project on Language Change and Variation showed that a curvilinear pattern could also appear in age (Labov 2001: 446ff); the curvilinear pattern in age, in which changes in progress often exhibit a peak in female speakers from their late teens through their twenties, was used to account for the incrementation of linguistic change (that is, how changes in progress could keep going in the same direction from one generation to the next).

The 'curvilinear pattern' found here is not the same as that original definition; it does not account for incrementation of the change, because the curve is in fact in the opposite direction: speakers in the middle two age-groups in this study seem to be *less* advanced in the change in progress than are the youngest or the oldest age-groups. Secondly, the 'trough' in each curve here is wider than the peaks detected in 'classic' versions of the curvilinear pattern, as detected in Philadelphia by Labov, for example. With the current

division of the data in this study, the 'trough' lasts for two age-groups, which cover a range of fifty years (the 20-44yrs and 45-69yrs age-groups), and analysis here will be on this basis; other divisions may make the location of the 'trough' more precise within that fifty-year span.

The location of this 'trough' at a particular point in apparent time suggests that we should look for its cause in events during the life-courses of speakers. Since the years from 20 to 69 cover roughly the working life, we may hypothesise that it is this that has caused these age-groups to show a less advanced state of the change in progress. Of the 15 speakers in these two age-groups (7 in the 20-44yrs age-group and 8 in the 45-69yrs age-group), a total of 5 (33%) were not in the workplace, comprised of two unemployed speakers, one housewife and two retired speakers.[20] Of the 67% of these speakers who were working at the time of the interview, many were in public-facing jobs, where a large part of their working day would be spent speaking to members of the public (for example, three town-hall administrators and a social housing manager). It seems reasonable, therefore, to suggest that social factors such as these may have caused the relatively low level of participation in the /a/-raising change-in-progress among the two middle age-groups for this urban study.

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[20] The average age of retirement in France in the period 2000-5 was approximately 58.75yrs, according to the French Ministry of Labour, Social Relations, the Family and Solidarity (Ministère du Travail, des Relations Sociales, de la Famille et de la Solidarité 2008).

At least one other study has previously found curvilinear patterns in age and has hypothesised that social factors such as these were at the root of the finding. Dubois & Horvath (1999), in their study of Cajun English in Louisiana, find that, for the changes-in-progress which they hypothesise to be from below (as /a/-raising in Normandy is), young males return to the values exhibited by their grandparents, while young women do not do so. They hypothesise that the reason for this curvilinear pattern in apparent time (which they call 'recycling') for changes from below is the stigma associated with Cajun stable variables in educational contexts: speakers' teachers have been so efficient at making them realise the stigma associated with the more easily recognisable Cajun variants, that the middle-aged speakers are able to apply this social stigma even to changes from below the level of consciousness (Dubois & Horvath 1999: 300-1).

In order for this case to be fully parallel to Dubois & Horvath (1999)'s Cajun English
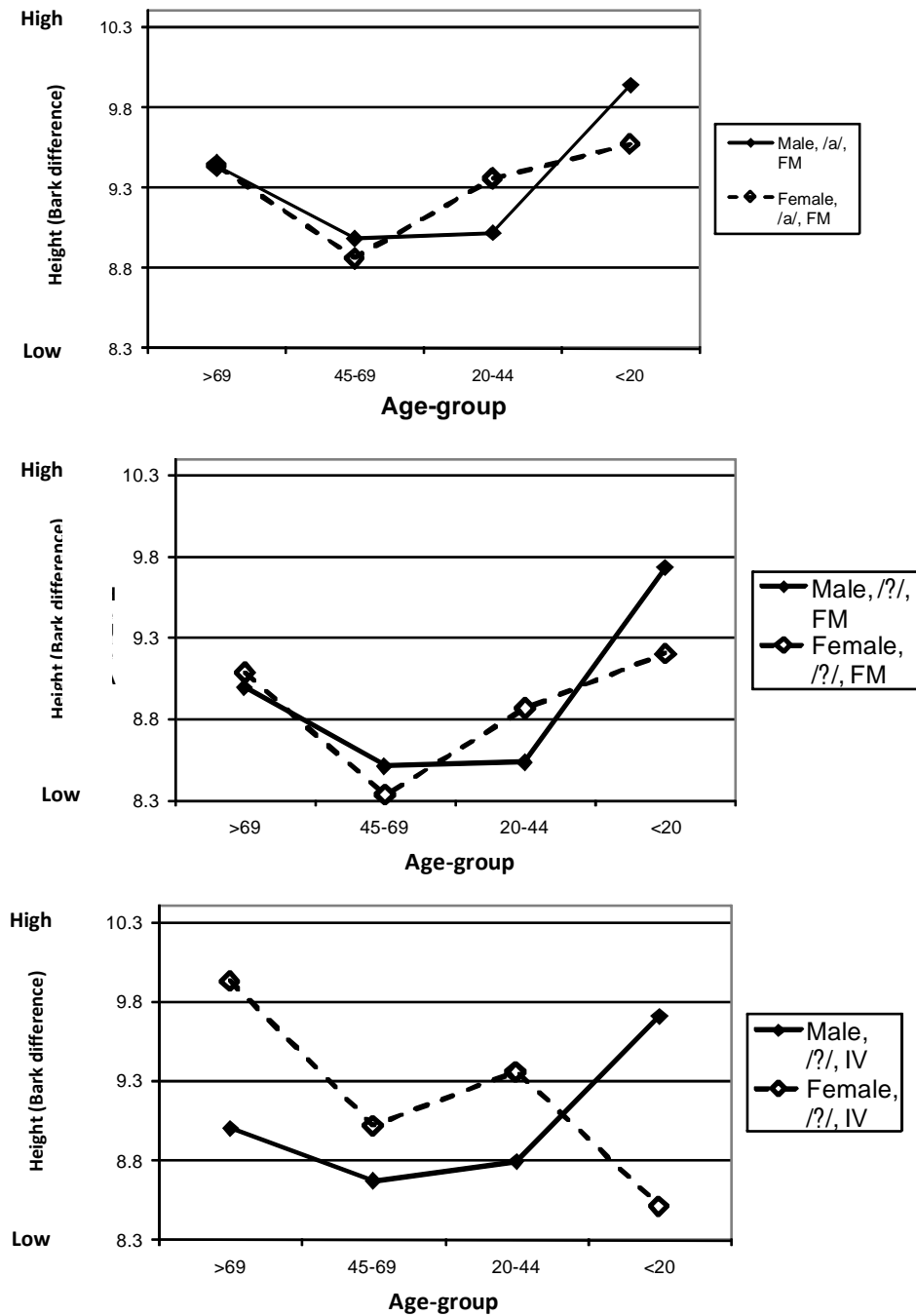
Figure 3-10

/a/ and /ɑ/ in Darnétal: curvilinear patterns in age for men, differentiation for women
top: height of /a/, FM style, by age-group
middle: height of /ɑ/, FM style, by age-group
bottom: height of /ɑ/, IV style, by age-group

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case, we would have to see the curvilinear pattern in age differentiated by sex, so that men followed such a pattern while women followed it less or not at all (Dubois & Horvath 1999: 294-5). In the urban community of the present study, we see such a difference to a lesser degree. A slight curvilinear pattern is evident in the Darnétal men's treatment of /ɑ/ in IV style, and of both /a/ and /ɑ/ in FM style (Figure 3-10); and, as in the Cajun English study, women in all these divisions of the data echo the men's treatment for all but the youngest age-group, and in the youngest age-group the women have a lesser degree of the change than do the men (*i.e.* the Normandy women may be more influenced by the norms of Standard French).

The difference between men and women in the youngest age-group is not as striking as in Dubois & Horvath (1999), but it may indicate something like the same reaction to the presence of outside, strictly-enforced norms as was found in the Cajun English study.

Having observed this partial recycling in FM style, the pattern that we see for /a/ in IV style is strange. We would expect the most systematic data to be present in IV style (Labov 1972: 208, 1981: 3); in fact, however, in this instance the pattern of /a/-raising by sex and age-group is less explicable in IV style than in FM style (Figure 3-11), or at least it is not explicable in the same way. We have seen that, elsewhere, males have a distinct curvilinear pattern in age, and females in the youngest age-group (most prominently) do not raise /a/ or /ɑ/ to such an extent. For /a/ in IV style, though, it seems as if the different

variants have different amounts of covert prestige for male and female speakers: while
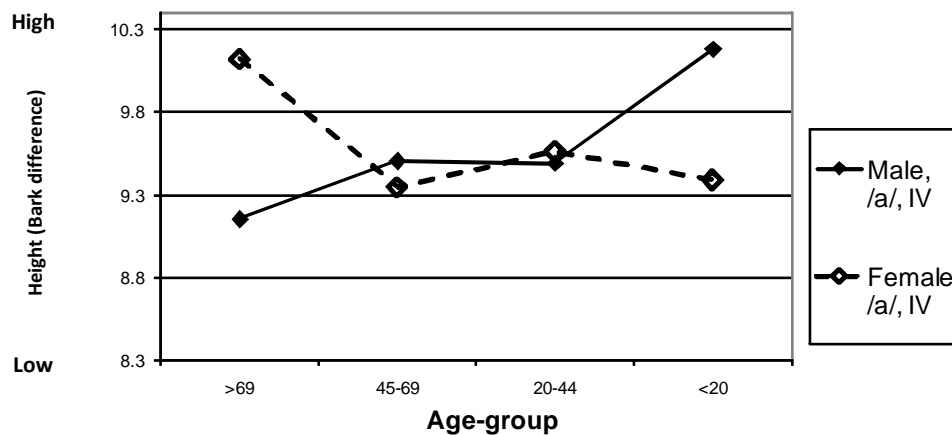
Figure 3-11
height of /a/, urban site, IV style, by sex and age-group

the rate of /a/-raising rises in apparent time with men, it falls in apparent time with

women. The increasing rate of /a/-raising in apparent time among men is what we would

expect if this is indeed a male-led change from below, but the behaviour of women, in

that case, is puzzling. What we may be seeing here is a (partial) manifestation of Labov's

'Gender Paradox' (2001: 293):

> 'Women conform more closely than men to sociolinguistic norms that are overtly
> prescribed, but conform less than men when they are not.'

By the youngest age-group, it may be that (a) is changing its character as a variable, so

that it is not as far below the level of consciousness as for the older age-groups. This

explanation, however, leaves the females' low level of /a/-raising in the oldest age-group

to be explained. These different amounts of covert prestige are something we will return

to when considering the data divided by sex and SEC.

As in La Bonneville, in Darnétal /a/ and /ɑ/ move much less in advancement than in height. Neither vowel in fact moves significantly in advancement between the oldest and the youngest age-groups, whether in IV style or in FM style (Figure 3-12). In both IV
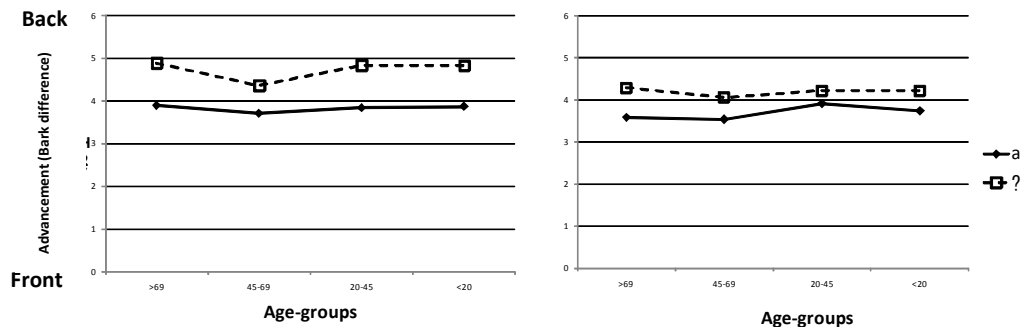
Figure 3-12
(oldest speakers on the left of each graph)
left-hand graph: advancement of /a/ and /ɑ/, urban site, IV style, by age-group
right-hand graph: advancement of /a/ and /ɑ/, urban site, FM style, by age-group

style and FM style, Darnétal's /a/ and /ɑ/ are further forward than La Bonneville's: this seems to be evidence that, in gross terms at least, the popular perception that in rural areas *on écrase les a* "we crush our a's" is true. (I heard this perception expressed twice by callers to a phone-in on the state of the Norman language, in which I participated on the Cotentin local radio station (France Bleu Cotentin) on 6 May 2008: callers were talking in these instances not about speaking in Norman, which they usually call *patois*, but about their local accent when speaking in French. While *écraser* 'crush' (v.) does not of course have any technical linguistic meaning, it is often used in lay discussions of linguistics to describe a stereotypical very back pronunciation of /ɑ/.)

A simple division of these data by SEC does not reveal much about the variable, since most of the differences between adjacent groups are not significant. As with other divisions of the data, in both IV and FM styles there is almost always a significant difference between /a/ and /ɑ/ (the only exception being in IV style for height). As was stated above, though, the cross-tabulation of the data by sex and SEC shows some interesting and possibly contradictory tendencies.

Figure 3-13 shows the most extreme example of the general 'crossover' pattern that is found to varying degrees for both /a/ and /ɑ/, in both height and advancement, in Darnétal.
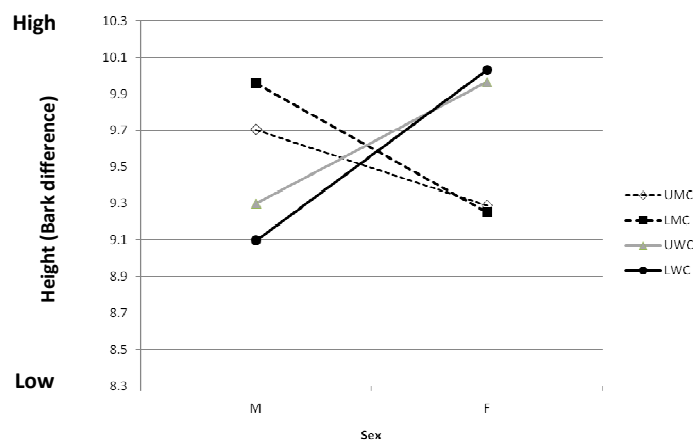
Figure 3-13
Height of /a/, urban site, IV style, by SEC and sex

- For both males and females, there is no significant difference between UMC and LMC, and no significant difference between UWC and LWC.

- For both males and females, there is a significant difference between what we may call the Lower-class cluster and the Middle-class cluster (for males, $p = 7 \times 10^{-3}$; for females, $p = 4 \times 10^{-6}$).

- For all SEC groups, the differences between males and females are significant (UMC: $p = 5 \times 10^{-5}$; LMC: $p = 3 \times 10^{-6}$; UWC: $p = 5 \times 10^{-4}$; LMC: $p = 1 \times 10^{-7}$).

All the cross-tabulations of SEC and sex for (a) in Darnétal exhibit this pattern: both /a/ and /ɑ/, in both height and advancement, in both IV style and FM style. However, none of the other cross-tabulations displays it as perfectly as Figure 3-13, with non-significant differences in all the four 'class clusters', significant differences between them for both sexes, and significant differences between the sexes in all SEC groups. In general, too, in IV style the Lower and Middle 'class clusters' are more evident – better-separated – for height than for advancement. We have come to expect by now that in both these Normandy communities there is more of a change in progress in height than in advancement, and this is generally true of the cross-tabulation of sex and SEC too, at least in IV style. In FM style, the data are less systematic than in IV style, which is what we generally expect in most data-sets (Labov 1972, 1981), notwithstanding the high degree of systematicity in FM style for other cross-tabulations of the Normandy data.

The proper interpretation of this 'crossover' pattern is unclear, since it appears to show characteristics of both changes from above and changes from below. The most straightforward explanation of Figure 3-13 would be one that considered it to represent a change from above, since

> 'in linguistic change from above, women adopt prestige forms at a higher rate than men'

(Labov 2001: 274). This would account for the female Middle-class cluster not having raised /a/ as much as the Working-class cluster, and for the reversed situation among the males. The problem with this interpretation, though, is that /a/-raising does not fit the original criterion for a change from above: it does not seem to originate above the level of consciousness, in that speakers will never mention a raised /a/ if asked to comment on the features of their accent. If they mention phonological features at all, they may talk about /ɑ/-*backing* (or, more precisely, resistance to a more general /ɑ/-fronting),[21] but /a/-raising seems to be entirely below the level of consciousness. I would like to suggest that (in this case at least) it is possible that speakers are conscious of 'some kind of change' going on with (a), and that they have (not consciously, of course) transferred some of the sociolinguistic characteristics of a stable variable that they recognise – /ɑ/-advancement –

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[21] And indeed, the advancement dimension of /ɑ/ does exhibit this pattern, suggesting that it might be a change from above, which (as previously suggested) is plausible.

to a change which they can detect, at some level, but of which they are not conscious: /a/-raising.

3.6.3 Phonology and sociolinguistics of (a)

3.6.3.1 The phonology and sociolinguistics of (a) in La Bonneville

In the rural site for this study, La Bonneville, we see clear evidence of behaviour different from the norm of standard colloquial French with respect to (a). Very few speakers exhibit a merger of /a/ and /ɑ/ in La Bonneville: one speaker (M, <20, LMC) exhibits a merger in his Interview style, but none do in Formal Methods style. In general, La Bonneville speakers are keeping /a/ and /ɑ/ apart in advancement (not aligning them), but they are more willing to align them in height: in any given sample or sub-sample, there are always more height alignments than advancement alignments. In both dimensions, there are also always more alignments in IV style than in FM style. Figure 3-14 and Table 3-1 show these differences.

Table 3-1 also demonstrates the size of the samples we are working with, and implies that
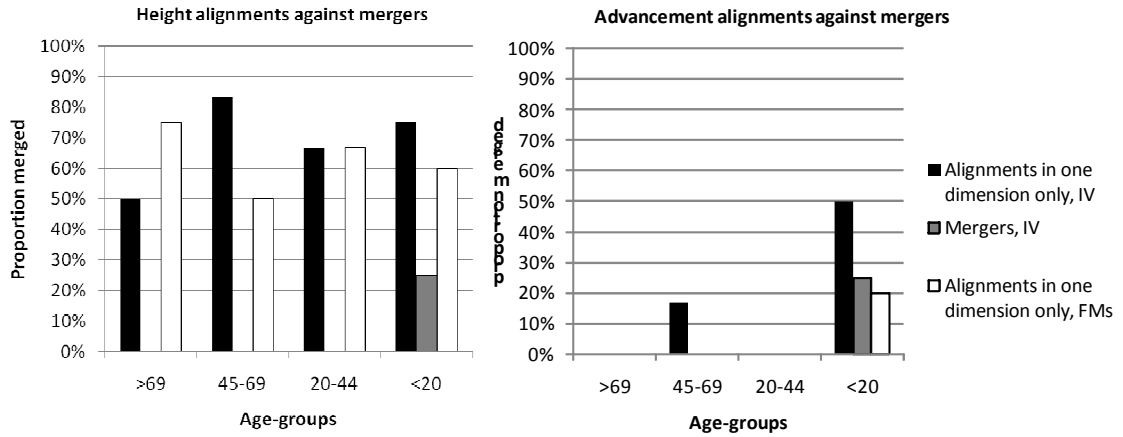
Figure 3-14
left: (a): height alignments by age-group, rural site
right: (a): advancement alignments by age-group, rural site

Mergers in IV style also shown for comparison. There are no
mergers in FM style.

	Interview style			Formal Methods style		
	Height alignment	Advancement alignment	Merger	Height alignment	Advancement alignment	Merger
> 69	3/6	0/6	0/6	3/4	0/4	0/4
45-69	5/6	1/6	0/6	3/6	0/6	0/6
20-44	4/6	0/6	0/6	4/6	0/6	0/6
< 20	3/4	2/4	1/4	3/5	1/5	0/5

Table 3-1
Ns for Figure 3-14

we should probably consider trends shown in these graphs as indications and not as confirmations of tendencies in the population. The one male lower-middle-class speaker of less than 20 years old who completely merges /a/ and /ɑ/, mentioned above, accounts for 25% of the speakers in the youngest age-group (*i.e.* there are four speakers in that group).

Looking more closely at the La Bonneville data subdivided by sex, age and socioeconomic class, we see that not only do no females merge /a/ and /ɑ/, but also more males than females merge them in height, in both IV and FM styles (10 M against 5 F in IV style; 8 M against 5 F in FM style). Conversely, in IV style, more females than males have advancement alignments, but the difference in Ns is only of one male to two females; see Figure 3-15 and Table 3-2.

Figure 3-15
left: (a): height alignments by sex, rural site
right: (a): advancement alignments by sex, rural site

Mergers in IV style also shown for comparison. There are no
mergers in FM style.

	Interview style			Formal Methods style		
	Height alignment	**Advancement alignment**	**Merger**	**Height alignment**	**Advancement alignment**	**Merger**
Male	10/13	1/13	1/13	8/13	1/13	0/13
Female	5/9	2/9	0/9	5/9	0/9	0/9

Table 3-2
Ns for Figure 3-15

When the sample is divided by sex and age, or by socioeconomic class, we still see that there are more height alignments than advancement alignments in most cases, but advancement alignments become more common, the younger the speaker-group. Both in socioeconomic class and in age, there is a clear peak in height alignments in one of the two middle categories (UWC in socioeconomic class and 45-69yrs or 20-44yrs in age). Figure 3-16 shows the data split up by age-group.
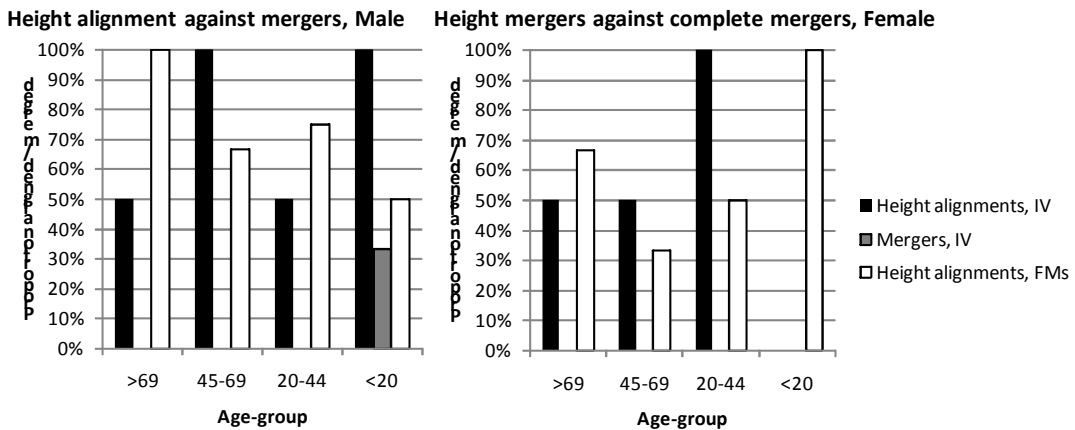
Figure 3-16
left: (a): Male height alignments by age-group, rural site
right: (a): Female height alignments by age-group, rural site

Mergers in IV style also shown for comparison. There are no mergers in FM style.

	Male			**Female**		
	Height alignment, IV style	**Height alignment, FM style**	**Merger, IV style**	**Height alignment, IV style**	**Height alignment, FM style**	**Merger, IV style**
> 69	1/2	1/1	0/2	2/4	2/3	0/4
45-69	4/4	2/3	0/4	1/2	1/3	0/2
20-44	2/4	3/4	0/4	2/2	1/2	0/2
< 20	3/3	2/4	1/3	0/1	1/1	0/1

Table 3-3
Ns for Figure 3-16

The graphs of Figure 3-16 show that (in IV style) the peak in height-alignment occurs earlier in apparent time in males than it does in females. Combining this evidence with the evidence of Figure 3-15, which shows that more males than females have a height alignment in (a), we may surmise that it is a male-led change, and as such probably from below. And indeed, a division of the data by class confirms this (Figure 3-17).

Height mergers against complete mergers
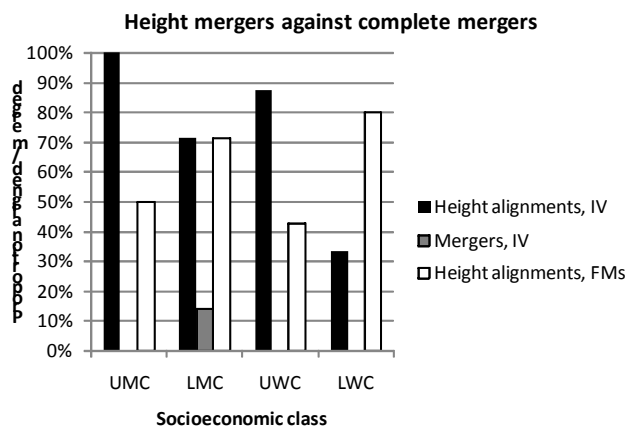
Figure 3-17
(a): Height alignments by SEC, rural site

Mergers in IV style also shown for comparison. There are no mergers in FM style.

	Height alignment, IV style	Height alignment, FM style	Mergers, IV style
UMC	1/1	1/2	0/1
LMC	5/7	5/7	1/7
UWC	7/8	3/7	0/7
LWC	2/6	4/5	0/6

Table 3-4
Ns for Figure 3-17

Again in IV style, the peak in height alignments occurs in the UWC (apart from the single UMC informant who has this alignment but makes up 100% of his social group in this cross-tabulation): the peak therefore occurs in one of the two lower SEC categories.

It seems, then, that the height alignment in (a) is a male-led change from below. What of its counterpart, the advancement alignment which is more commonly cited as the reason why /a/ and /ɑ/ have merged in much contemporary French (since their heights are much less different than their degrees of advancement to begin with)? As the advancement alignment is the one more commonly cited as the more salient movement between the phonemes of (a), we can reasonably define it as a change from above, and this definition means that we can expect it to behave differently from the height alignment, a change from below (Labov 1994: 78, 2001: 272ff). Specifically, we might expect to see the advancement alignment adopted more by females than by males, and more in higher social classes than in lower ones. We have already seen (Fig. 3-15 above) that, at least in IV style, more females than males do have an advancement alignment (though their advantage is only 1 to 0).

This observation receives more detailed confirmation when the data are divided up by sex and age (Figure 3-18). In Fig. 3-18, for males, the number of advancement alignments in the youngest age-group is 1 of 3 in IV style and 1 of 4 in FM style. For females, there is 1 advancement alignment in IV style (the only female interviewee of that age-group) and none in FM style.
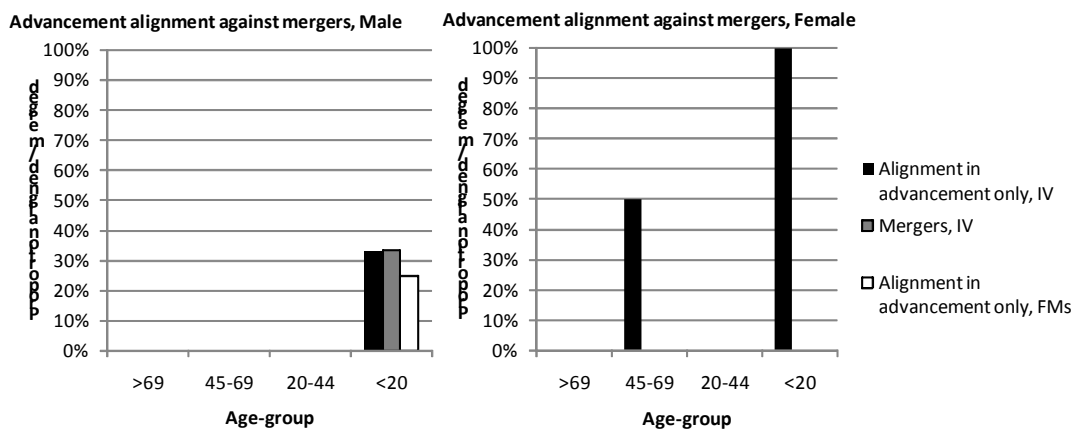
Figure 3-18
left: (a): Male advancement alignments by age-group, rural site
right: (a): Female advancement alignments by age-group, rural site

Mergers in IV style for males are also shown for comparison. There are no mergers in IV style for females, and no mergers in FM style for either sex.

	Male			Female		
	Advancement alignment, IV style	Advancement alignment, FM style	Merger, IV style	Advancement alignment, IV style	Advancement alignment, FM style	Merger, IV style
> 69	0/2	0/1	0/2	0/4	0/3	0/4
45-69	0/2	0/3	0/4	1/2	0/3	0/2
20-44	0/4	0/4	0/4	0/2	0/2	0/2
< 20	1/3	1/4	1/3	0/1	1/1	0/1

Table 3-5
Ns for Figure 3-18

We see in Figure 3-19 that, for IV style, the peak in advancement alignments does occur in a higher SEC group than the peak for height alignments; this is as expected if

Advancement alignment against mergers
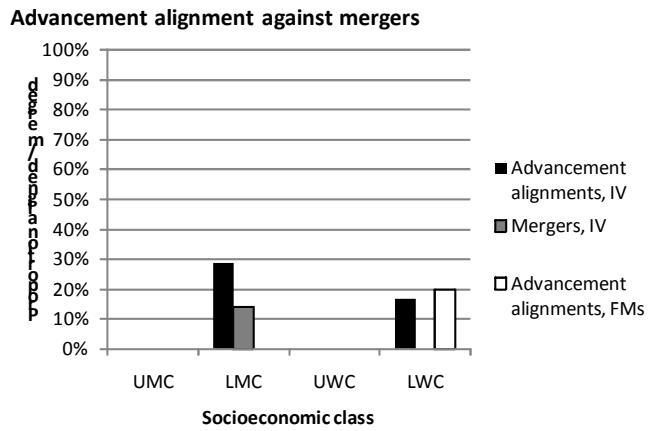
Figure 3-19
(a): Advancement alignments by SEC, rural site, both sexes

Mergers in IV style also shown for comparison. There are no mergers
in FM style.

	Advancement alignment, IV style	Advancement alignment, FM style	Mergers, IV style
UMC	0/1	0/1	0/1
LMC	2/7	0/7	1/7
UWC	0/8	0/7	0/7
LWC	1/6	1/5	0/6

Table 3-6
Ns for Figure 3-19

advancement alignments are a change from above. The peak is not a high one – it represents 2 speakers out of 7 in that class – but it is above the totals for other SEC groups for that alignment.

To summarise, then:

- In our rural site, the height alignment between /a/ and /ɑ/ seems to be a male-led change from below.

- The advancement alignment seems to be a change from above, and as such it is led by females.

- However, only one rural speaker of the 24 in the sample has a merger of /a/ and /ɑ/. These different tendencies in the individual height and advancement alignments therefore do not generally lead speakers of the Regional French of Normandy to have a merger of /a/ and /ɑ/, which is held to be the vernacular, casual-speech norm in much of the rest of France.

3.6.3.2 The phonology and sociolinguistics of (a) in Darnétal

As is stated above, speakers in the urban Normandy site for this study treat (a) very differently to their rural counterparts. As in the rural sample, there are still more height alignments than advancement alignments (though not as many more as in the rural sample); however, in most sub-samples of the community, there are many more mergers in the urban sample than in the rural one. More importantly, though, a version of the 'Bill Peters effect' is often seen in the urban sample.

Labov, Yaeger & Steiner (1972: 235-6; see also Labov 1994: 363-4)[22] first analysed the case of Bill Peters, a native of Duncannon, Pennsylvania, North of Harrisburg and West of the Susquehanna River; the river (at least at that time) formed the Eastern limit of the

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[22] Labov, Yaeger and Steiner (1972) will henceforth be referred to as LYS.

Western Pennsylvania *cot – caught* merger. In his connected speech, Peters kept the vowels of these two words well apart, with 'low central [ɑ] for short *o* [*cot*] and mid back, non-peripheral [ɔ] for long open *o* [*caught*]' (LYS: 235). However, in Peters' Formal Methods (in this case, minimal pairs), the two classes are much closer together, though still distinct. This type of style-shifting seems to be in the opposite direction from that which we would normally expect, since Peters' community is at the edge of the Western Pennsylvania area, and younger people in Duncannon had adopted the *cot – caught* merger by the time the research for LYS was being carried out; in general, incoming sound-changes would not have the prestige required for them to be evident in the more careful style that readers can be expected to adopt when paying attention to their language in formal tests, and this is especially true if the change has not been evident in their casual, connected speech, as was the case for Peters. However, Peters seems to have adopted the incoming norm in his careful speech, possibly because it is used by young people whom he perceives as educated, as LYS speculate (p235-6).

Following these findings, the 'Bill Peters effect' is the name which has generally been given to effects where the expected direction of style-shifting (more conservative varieties in more formal styles, *cf* Labov 1994: 157-8) has been reversed, as is often the case in this study's Darnétal sample. However, the exact details of the present case are more parallel to those of another case discussed by LYS and by Labov (1994): that of

Dan Jones of Albuquerque, New Mexico. In analysis of Jones' *fool-full* merger, it appeared that he did distinguish the vowel phonemes concerned – by pronouncing [uˑ] for the *fool* class and [ʊ] for the *full* class – in his casual, connected speech, but that 'he [produced] only a very marginal distinction in a commutation test which [was] only marginally distinguishable by others'. LYS conclude that

> '[in] such a situation, many members of the speech community may begin to disregard a distinction in the sense that they no longer rely on it to ditinguish words without other context; the distinctive feature is then suspended'. (both quotations from LYS: 241-2)

This conclusion is very reminiscent of the conclusion of Lerond (1980: xii) on the distinction (or lack of it) between /a/ and /ɑ/ in French: for realisations of both [a] and [ɑ] he introduces a single new symbol, [A] (small-cap *a*), for 'the area of realisations extending from [æ] to [ɑ] inclusive'.[23] In both cases, the French case and Dan Jones, we are dealing with a marginal distinction which is seen to be made more in casual, connected speech than in Formal Methods.

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[23]'la zone de réalisations qui s'étend de [æ] à [ɑ] inclus'.

What we may then call the 'Dan Jones effect' – a non-standard merger in FM style and more standard separate phonemes in IV style – can be seen straightforwardly in the urban sample's treatment of (a), divided by age. 60% (3/5) of <20yrs speakers have a merger in (a) in FM style, but none (out of three speakers with whom an interview was conducted) had a merger in IV style (Figure 3-20).
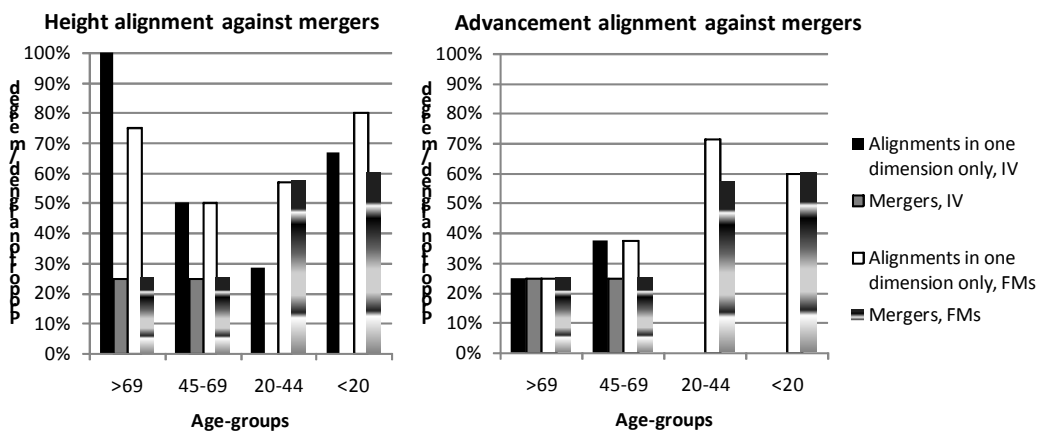
Figure 3-20
left: (a): height alignments by age-group, urban site
right: (a): advancement alignments by age-group, urban site
Mergers in both styles also shown for comparison

	Interview style			Formal Methods style		
	Height alignment	Advancement alignment	Merger	Height alignment	Advancement alignment	Merger
> 69	4/4	1/4	1/4	3/4	1/4	1/4
45-69	4/8	3/8	2/8	4/8	3/8	2/8
20-44	1/7	0/7	0/7	4/7	5/7	4/7
< 20	2/3	0/3	0/3	4/5	3/5	3/5

Table 3-7
Ns for Figure 3-20

Figure 3-20 also shows that in all age-groups, the proportion of advancement alignments in (a) in FM style either equals or exceeds the proportion in IV style (right-hand graph).

The same is true for height alignments (left-hand graph) in all age-groups except the oldest.

The situation is a little more complicated when the sample is broken down by sex (Figure 3-21).
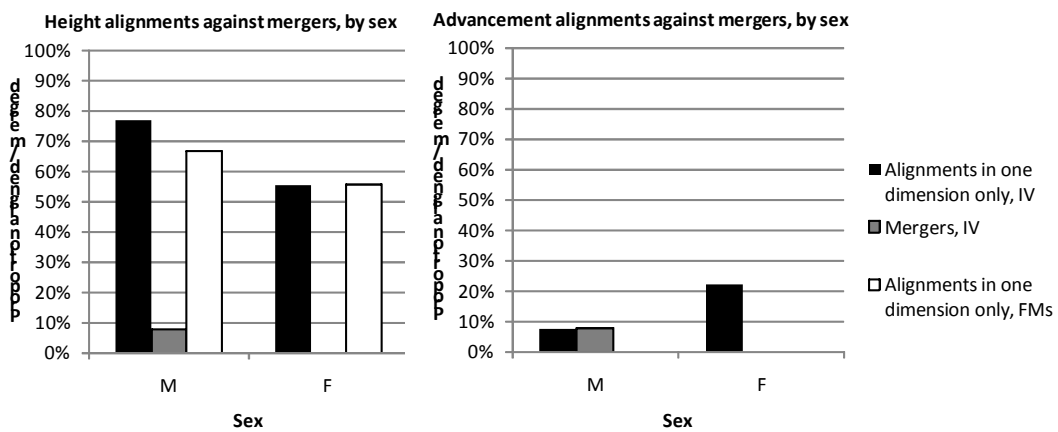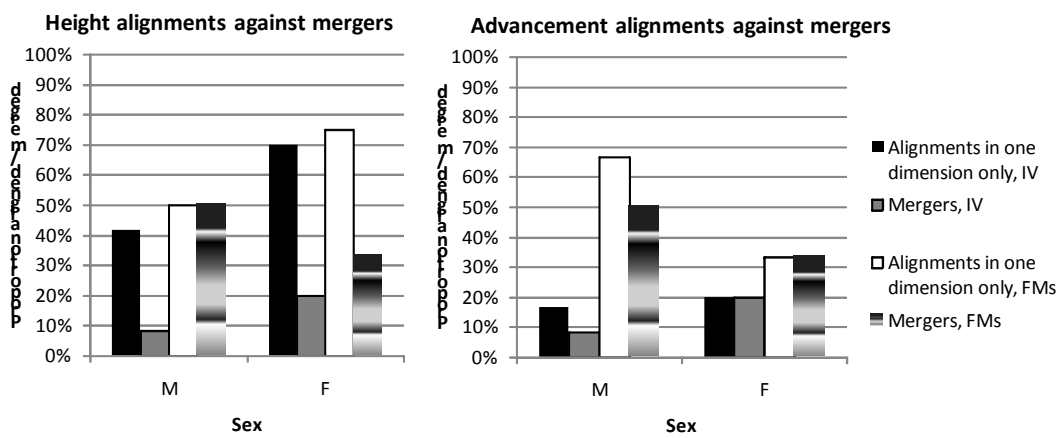

Figure 3-21
left: (a): height alignments by sex, urban site
right: (a): advancement alignments by sex, urban site
Mergers in both styles also shown for comparison

	Interview style			Formal Methods style		
	Height alignment	Advancement alignment	Merger	Height alignment	Advancement alignment	Merger
Male	5/12	2/12	1/12	7/10	2/10	2/10
Female	6/12	8/12	6/12	9/12	4/12	4/12

Table 3-8
Ns for Figure 3-21

In both IV and FM styles, women have more height alignments than men, and they also have more mergers than men. In IV style, women also have slightly more advancement alignments than men. On the other hand, in FM style men have more mergers than women, and more advancement alignments than women. We also see again the 'Dan

Jones effect': in both sexes, there are more alignments and more mergers in FM style than in IV style. The situation between the sexes is almost the opposite of the situation in the rural site (Figure 3-15, above): there, more men than women had height alignments, and more women than men had advancement alignments. There, we interpreted the height alignment as a ma le-led change from below, and the more salient advancement alignment as a female-led change from above. Can the same interpretation be maintained in the urban community?

It appears that the interpretation of the height alignment as a change from below, at least, can be maintained, but whether it is male-led or not is another question. In the urban males' graph (Figure 3-22, left), we see that in IV style the youngest males have the same proportion of height-merged (a) as the oldest group, of their grandparents' age, while the two middle age-groups have much lower rates of height alignment. This can be linked to the fact that the two middle age-groups are the ones in the workplace, and would probably need to speak to people from outside the city and outside the region in their daily lives; even in IV style, they might therefore feel the need to speak in a non-local way (*cf* Cajun women working outside their area of residence, who reject some more marked Cajun English phonological variants: Dubois & Horvath 1999). This is especially likely given the fact that in most cases the interviewee did not know the interviewer well. The need to communicate with people from outside the region might be particularly felt
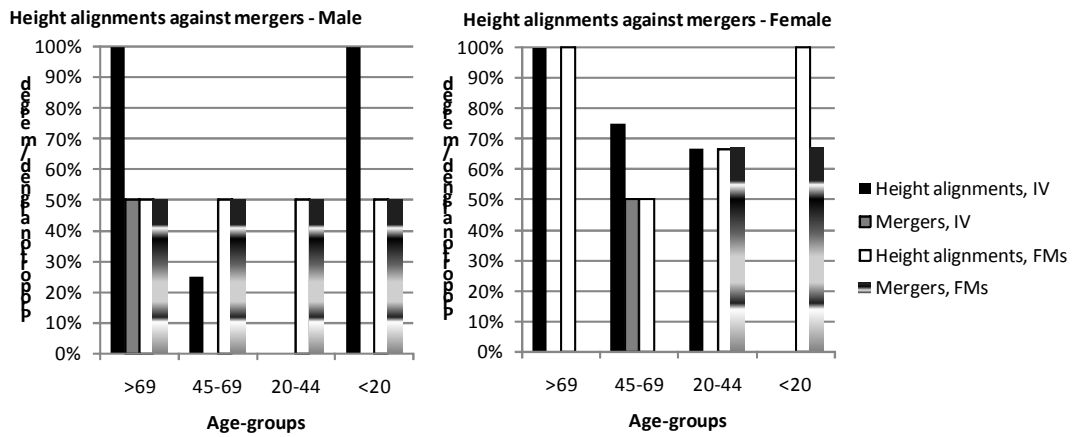
Figure 3-22
left: (a): Male height alignments by age-group, urban site
right: (a): Female height alignments by age-group, urban site
Mergers in both styles also shown for comparison

	Male				Female			
	Height alignment, IV style	**Height alignment, FM style**	**Merger, IV style**	**Merger, FM style**	**Height alignment, IV style**	**Height alignment, FM style**	**Merger, IV style**	**Merger, FM style**
> 69	2/2	1/2	1/2	1/2	2/2	2/2	0/2	0/2
45-69	1/4	2/4	0/4	2/4	3/4	2/4	2/4	0//4
20-44	0/4	2/4	0/4	2/4	2/3	2/3	0/3	2/3
< 20	2/2	1/2	0/2	1/2	0/1	3/3	0/1	2/3

Table 3-9
Ns for Figure 3-22

in a large, industrialised agglomeration such as Rouen, which, in addition, is close to Paris. In the right-hand graph (females), in IV style we see a monotonic descent in height alignments from the oldest to the youngest group.

As in the rural site, the division of the urban data by socioeconomic class reveals more about how (a) is treated in this speech community (Figure 3-23). Among the height
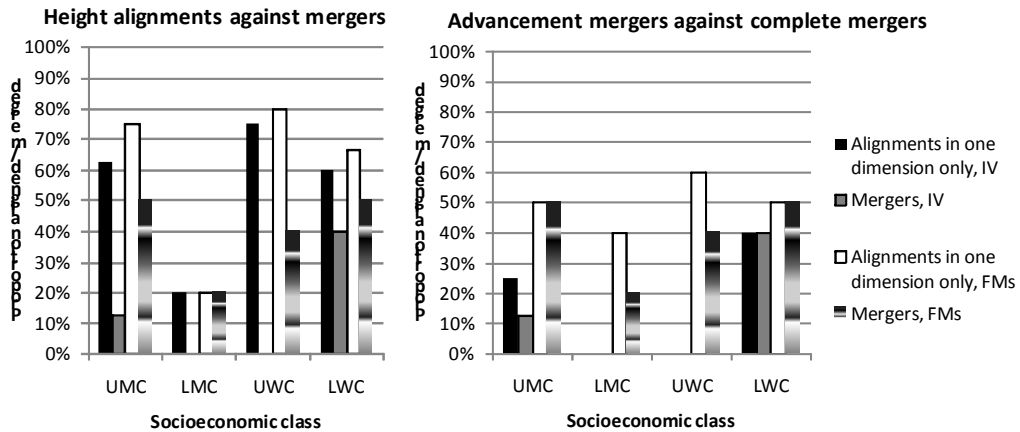
Figure 3-23
left: (a): height alignments by SEC, urban site
right; (a): advancement alignments by SEC, urban site
Mergers in both styles also shown for comparison

	Height alignment, IV style	Height alignment, FM style	Advancement alignment, IV style	Advancement alignment, FM style	Merger, IV style	Merger, FM style
UMC	5/8	6/8	2/8	4/8	1/8	4/8
LMC	1/5	1/5	0/5	2/5	0/5	1/5
UWC	3/4	4/5	0/4	3/5	0/4	2/5
LWC	3/5	4/6	2/5	3/6	2/5	3/6

Table 3-10
Ns for Figure 3-23

alignments there is a clear trough in LMC speakers, while UWC informants have most height alignments in FM style and a similar proportion (though in fact slightly fewer than the UMC) in IV style. This pattern in the UWC would speak in favour of the change being from below. By contrast, there is no such clear pattern in advancement alignments.

What, then, can we conclude about the status of (a) in the Darnétal / Rouen speech community? To summarise:

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- The urban community in this study almost invariably shows a 'Dan Jones effect' for (a), whereby there is a greater rate of the individual height and advancement alignments, as well as mergers, in FM style than in IV style. This can be seen even though the merger is not the prestige variant in Standard French.

- The height alignment is clearly a change from below in the urban community, just as it is in the rural community.

The advancement alignment is not as clearly marked for social class in the urban community as it is in the rural community, though it is clear that in the urban community women are sensitive to it (LMC urban females have no advancement alignment).

3.6.3.3 Overview summary for (a)

The one thing that seems clear from this investigation is that the rural and urban communities in this study do not treat (a) in the same way, as can be seen from Table 3-11. The comparatively large number of question-marks (provisional conclusions) in this table is a reflection of the low N's in this study when the sample is divided up by the various social factors considered. We can, however, see that all the changes we are dealing with – certainly the one-dimensional height and advancement alignments, and possibly also the merger – seem to come from below in the urban community; in the rural

community, on the other hand, the height alignment and possibly also the merger come

from above, though the height alignment comes from below.

	Rural	Urban
Height alignment	IV: 15/22 (68.2%) FM: 13/21 (61.9%) from below Male-led	IV: 12/22 (54.5%) FM: 15/24 (62.5%) from below Leadership unclear
Advancement alignment	IV: 3/22 (13.6%) FM: 1/21 (4.8%) from above Female-led? (probably too few to say)	IV: 4/22 (18.2%) FM: 12/24 (50.0%) from below Leadership unclear
Merger	IV: 1/22 (4.5%) FM: 0/21 (0.0%) from below?? (but very few complete mergers)	IV: 3/22 (13.6%) FM: 10/24 (41.7%) from above?

Table 3-11   Summary of overview findings on (a)

3.7   Linguistic conclusion

Let us, then, review the findings of this chapter on (a).

3.7.1   Phonetics

In the current state of this study, we should not draw too many precise conclusions about

the phonetic aspect of the treatment of (a) in Normandy: we cannot relate it to any

developments in the other vowels, because the other vowels have not yet been measured

there, and for the same reason we cannot transpose the present Bark-normalised

measurements to the more common Hertz measurements.
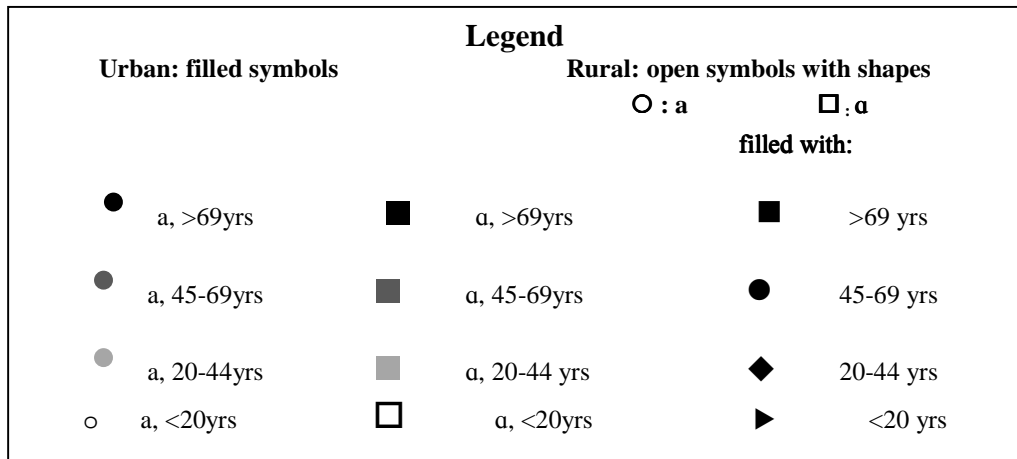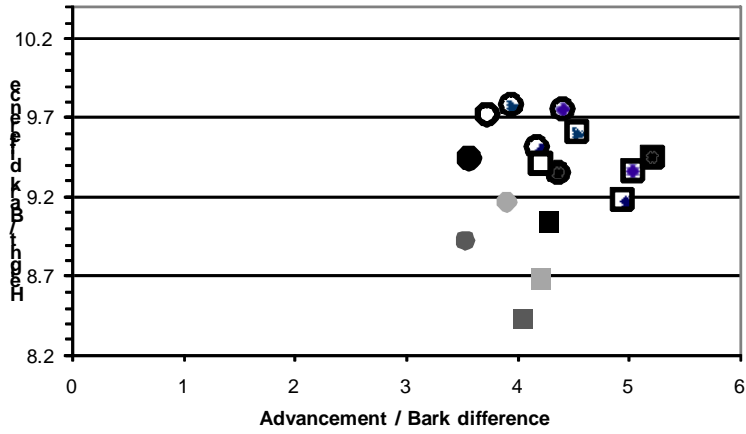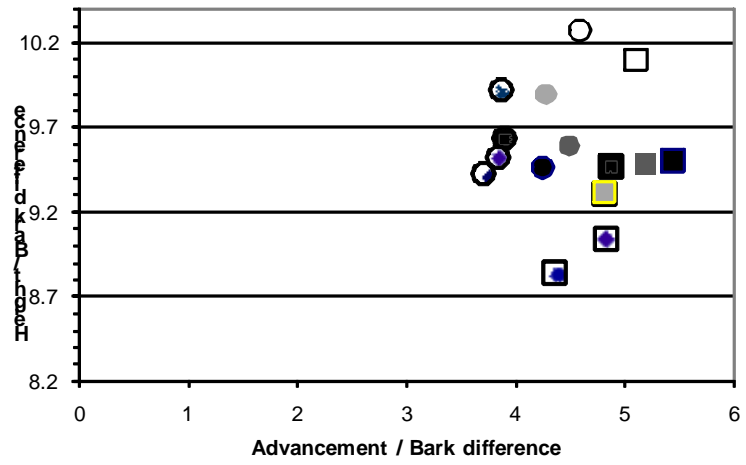
Figure 3-24

top: /a/ and /ɑ/, both sites, IV style, by age-group

bottom: /a/ and /ɑ/, both sites, FM style, by age-group

With these caveats, a pattern does still emerge from a breakdown of the mean positions of /a/ and /ɑ/ by age-group in our two sites (Figure 3-24). In both IV style (upper plot) and FM style (lower), La Bonneville's (a) is higher and backer than Darnétal's. For /ɑ/, this is a confirmation of the rural stereotype, previously mentioned, that "we crush our a's". There are two observations that we can make about the differences seen here between IV style and FM style: in both communities, both vowels are further forward in FM style than in IV style, which may refl ect the fact that 'back a' pronunciations in general (whether of /a/ or of /ɑ/) can be stigmatised in Normandy as a rural, 'backward-sounding' feature.[24] Secondly, Darnétal's means are more evenly distributed than La Bonneville's, particularly in the height dimension. Both communities keep a more-or-less constant advancement distance between /a/ and /ɑ/ in all age-groups, but Darnétal's distribution is more regularly patterned than La Bonneville's. The difference in the patterning of this variable in apparent time is also evident from these plots. Darnétal's curvilinear pattern in age for both /a/ and /ɑ/ can be seen clearly in both IV style and FM style, while La Bonneville's monotonic raising of both /a/ and /ɑ/ with decreasing age is clearer in IV style (at least where the differences between adjacent age-groups are significant). Finally, the FM style graph with both communities' data makes an interesting pattern clear: both

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[24] In the radio phone-in on Norman in which I took part, previously mentioned, two callers mentioned that speaking Norman – one of whose features is a noticeably back /ɑ/ - made a speaker sound *arriéré* 'backward' in some people's ears.

communities seem to be centralising both /a/ and /ɑ/, though they are necessarily arriving at the youngest age-group's more central realisation by different routes, since earlier generations started from different places. While the Darnétal /a/ and /ɑ/ rise without moving significantly in the advancement dimension in order to centralise, the La Bonneville /a/ and /ɑ/ must rise *and* move forward, since both their /a/ and their /ɑ/ were backer than Darnétal's at the earlier stages.

3.7.2 Phonology

	Rural	**Urban**
Height merger	IV: 15/22 (68.2%) FM: 13/21 (61.9%) from below Male-led	IV: 12/22 (54.5%) FM: 15/24 (62.5%) from below Leadership unclear
Advancement merger	IV: 3/22 (13.6%) FM: 1/21 (4.8%) from above Female-led? (probably too few to say)	IV: 4/22 (18.2%) FM: 12/24 (50.0%) from above Leadership unclear
Complete merger	IV: 1/22 (4.5%) FM: 0/21 (0.0%) from below?? (but very few complete mergers)	IV: 3/22 (13.6%) FM: 10/24 (41.7%) from above?

Table 3-11 (reproduced)   Summary of overview findings on (a)

Table 3-11, reproduced here, shows that in the very broadest terms La Bonneville and Darnétal seem to belong to the same speech community, at least with regard to their treatment of (a). This is clearest with respect to the height alignment, where the proportions of people with such an alignment in the different styles are very similar

between the two sites. For advancement, thanks to the high awareness of back /ɑ/ in society in general, if it is a change we must define it as a change from above; but whether or not (a) is changing in advancement is a point for debate, especially when the figures for its phonology (whether there is an advancement alignment or not) are considered alongside the figures for its phonetics (where in the vowel space it is realised). The widespread social awareness of the advancement alignment is confirmed by the relatively high proportion of advancement alignments in FM style in the urban site. There is a difference between the two sites with regard to their treatment of mergers, though: La Bonneville has only one, whereas there is a relatively high proportion of mergers of /a/ and /ɑ/ in Darnétal. We may speculate that this is because people in the Rouen area in general have much more contact with speakers of varieties, including for example the Paris vernacular, where the merger of /a/ and /ɑ/ is nearly complete. (Jamin (2005) finds a large amount of /ɑ/ → [ɑ] among his working-class speakers, but one of his hypotheses is that this tendency is exactly as a reaction to the prevailing tendency towards merger.)

3.8   Theoretical conclusion

With all this in mind, we can say that (at least as far as (a) is concerned) Normandy does form a single speech community, but one that contains several 'nested speech communities' which treat different variables (slightly) differently according to the particular circumstances of the area they are in. The *département* in which La Bonneville

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is found, Manche, is stereotyped as a place 'on the edge of France', which looks out to the sea as much as it looks in towards Paris; the rural character of the *département* adds to this tendency, since there are no very large urban centres in it, and very little large-scale industry. Darnétal, on the other hand, and the Rouen agglomeration generally, is only ninety minutes from Paris by road, an hour by train, and, as one of the largest urban centres in the Seine Valley, has a lot of close communication with the capital, in a centralised country which by its nature emphasises communication with the capital in any case. The curvilinear pattern in apparent time that we see in Darnétal's (a) can perhaps be most readily explained by this proximity of the capital: in both IV style and FM style, the age-groups which might have to have most to do with the capital – those who may be working – approach the capital's norms most closely, by having least raising of /a/ and /ɑ/. Yet, in both our sites, we see the Norman influence in a firm separation of /a/ and /ɑ/.

Chapter 4 The vowel variable (e): /ɛ/ and

/e/

4.0   Organisation of the chapter

The chapter begins with a definition of the variable (e) in this study, a strictly-defined

subset of the possible occurrences of /ɛ/ and /e/ in French. It then gives an outline of the

history of (e) in French, followed by a summary of the synchronic position in France.

Finally, the phonetic and phonological results from this study's data are given, and they

are interpreted in sociolinguistic theory.

4.1   (e): defining the variable

This study examines only tokens of Modern French /ɛ/ and /e/ in word-final, stressed

position. I decided to examine only this very constrained context not only because of the

Orthography	Normative pronunciation	References
-é(e)(s)	[e]	Tranel 1987: 51-2, Delattre 194x: 21
-er(s)	[e]	Tranel 1987: 51-2, Delattre 194x: 21
-ez	[e]	Tranel 1987: 51-2, Delattre 194x: 21
-ai (word-final)	[e]	Delattre 194x: 21
	[ɛ]	'most [people use] [ɛ]': Tranel 1987: 52 (Tranel's is a statement about common usage, not about normative behaviour, but it is included here as a good indication of the lack of consensus on the pronunciation of ai>)
-ai- (including *–aie, -aient, -aies, -ais, -ait, -aît, -aits, -aix, -ay*)	[ɛ]	Tranel 1987: 51-2, Delattre 194x: 21
-ès	[ɛ]	Tranel 1987: 51-2
-et(s), -êt(s)	[ɛ]	Tranel 1987: 51-2, Delattre 194x: 21
est (**verb**)	[ɛ]	Chollet & Robert 2002: 16

Table 4-1
Orthography of tokens of (e) used in this study

less predictable variation which can occur with any non-stressed vowel, but also because

of the lack of consensus about (e) in previous studies of the Regional French of

Normandy (see below). Constraining the phonological environment examined, thus

reducing the amount of inherent variability in the material under discussion, will allow us

to reach as firm a conclusion as possible, in order to resolve the disagreements in the

literature on this variable.

The tokens of (e) examined in this study were taken from words with the orthographies

shown in Table 4-1. Exclusions were *et* and the function-words *les*, *ces*, *des*, *mes*, *tes*,

ses,[25] since the pronunciation of the vowels of these words can vary between speakers and even within the same speaker (depending on stress and role in the sentence, for example). Table 4-1 shows that most sources consulted are unanimous on the pronunciation of any given orthography; in the one case of dispute, the pronunciation of word-final <-ai>, tokens were coded as phoneme /e/. Word-final <-ai> is not a common orthography in any case; it is probably most commonly encountered in the form *j'ai* 'I have', though there are some nouns which also end in <-ai>. Even some tokens of *j'ai* are also likely to be excluded because this verb is uncommon in stressed final position.

4.2 History of (e)

4.2.1 (e) in Latin

Modern French /ɛ/ and /e/ have their origins in at least three phonemes of Latin; we must also bear in mind that, between (Classical) Latin and Gallo-Romance (and other early Romance varieties), there was a transition from a system where quantity was contrastive (Latin) to a system where quantity was at most marginal,[26] and vowel-quality was the

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[25] Respectively 'and', 'the (pl.)', 'these' (demonstrative adjective), partitive (pl.), 'my' (pl.), 'your' (corresponding to singular / informal 'you'), 'his / her / its' (pl.).
[26] For (e), some varieties of French, including RFN, are still said to maintain contrastive length in some marginal environments. Examples are:

- where a circumflex indicates length – *mettre* [mɛtʁ] ~ *maître* [mɛːtʁ] ('put', 'master'), or *belle(s)* [bɛl] ~ *bêle* [bɛːl] ('beautiful (f.sg./pl.)', 'bleat') (Martinet 1945: 126ff); or

main element of contrast (true also for (a): see Ch3). Figure 4-1 shows the evolution of

the 'e sounds'[27] from Classical to Late Latin as summarised by Haudricourt & Juilland

(1970: 32) and by Pope (1952: §§157, 179-80).

ĭ	ē	ĕ	Classical Latin (quantity only)
ị̆	ẹ̄	ę̆	intermediate (quantity and quality)
	ẹ	ę	Late Latin (after 3rd century)
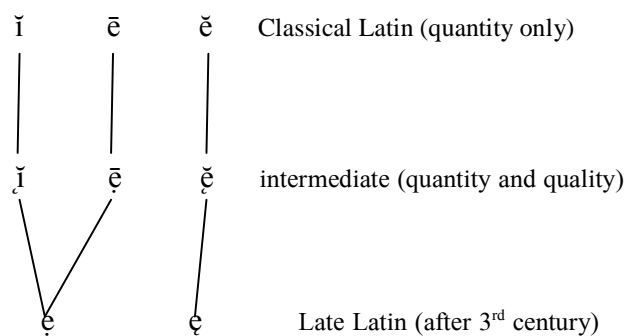
Figure 4-1
Haudricourt & Juilland (1970): evolution of 'e'-sounds of Latin

In Figure 4-1, I have retained the symbols used by Haudricourt & Juilland (1970), Pope

(1952) and elsewhere to refer to the vowels considered here: an underdot < ̣ > to indicate

a close vowel and a forward hook < ̨ > to indicate an open vowel. These vowels have not

been transcribed into IPA because, of course, these vowels can be described here only on

a phonological level, not on a phonetic one. When describing later stages of the language,

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- to distinguish masculine singular adjectives from feminine singular ones, and from masculine and feminine plural ones: *couché* [kuʃe] (m.sg.) ~ *couchée* (f.sg.)*, couchés* (m.pl.)*, couchées* (f.pl.) (all [kuʃe:]), meaning 'lying down' (Lepelley 1975).

However, contrastive length is not considered in this study, which is limited to contrasts in the vowel-space.

[27] This term is used loosely, meaning the phones which were written in Latin with <e>.

in which phonetic realisations can be ascertained more exactly, we will be able to use IPA symbols.

4.2.2 (e) in Gallo-Romance and into French

The Late Latin shown in Figure 4-1 is still a very early stage of development towards the Romance languages, of course, and this means that many of the phonemes which will develop into French (e) are not yet in the phonological environment where they are found in French. In particular, many of the relevant phones are not yet in final position in their words: the loss of final unstressed syllables did not occur until the Gallo-Roman period, in the eighth or ninth century (Pope 1952: §256). Once many unstressed syllables had been lost (in final position and elsewhere), the stressed syllables which had previously been penultimate were now in final position. This meant that they could be affected by what has become known in Modern French as the *Loi de Position* 'Law of Position', whereby mid-vowels in stressed word-final position tend to become close and mid-vowels in non-final position tend to become open (Pope 1952: §200). This raising is most familiar from studies of it in Modern French, but it is in fact responsible for the phonemic status in French of many of the tokens of high mid /-e/ which exist today (*e.g. pied*, < Lat. *pĕdem*, Late Lat. *pẹde*).

Table 4-2 summarises the phonetic development of the various word-classes coded in this study for final stressed (e), from Latin to Modern French, mostly as accounted for by

Pope (1952). Because of the uncertainty about exact phonetic realisations for many phones, Pope's notations have been retained.

Table 4-2 (below)
Etymologies of word-classes coded for final stressed (e) in this study

Modern orthography	Summary development	Sections in Pope (1952) (unless noted)
Verb endings *–ais*, *-ait*	For *–ait*: Lat. *-iebat* > Early O.Fr. -ei̯e̥θ > by 11th c. -eie̥t stressed diphthong –ei- then developed as in other contexts: ei > oi > o̧ȩ 〉 ȩ (first attested late 13th c., finally accepted 17th c.)	917
	Loss of final post-vocalic consonants had begun as early as the late 12th c., but educated useage still frowned on it even in the early 17th c.	613 ff.
Noun / adjective ending *-ais* (applies also for the noun and verb ending *–aie* and the verb ending *-aient*)	Lat. ō, ŭ > Gallo-Romance o̧ ; Lat. ŏ > G.R. ǫ In diphthongs with i: By 13th c. ǫi > oȩ > u̯ȩ > wȩ and o̧i > u̯ȩ > wȩ Levelled to ȩ in many words (spread lexically) by end of 13th c.	518ff
Word-final *–ai* (verb ending and noun ending)	For verbs: Late Lat. –awi > Early Old French –ai > ȩi > ȩ 'later [than Late O.Fr.]'	529
-é(e)(s)	Late Lat. -atu̯ > Late O.Fr. –ȩθ > e̥ (by 13th c.)	666
-ès	Lat. -ĕs- + unstressed vowel > Gallo-Roman -ȩs Loss of final post-vocalic consonants from 12th c. (see above)	373
-er (infinitive ending and noun / adjective ending)	Lat. –are > O.Fr. -ēr(ȩ) (-iēr(ȩ) if preceded by a palatal) Loss of final post-vocalic consonants from 12th c.; 16th-c. grammarians still prescribed pronunciation of this –r; by late 16th c. this –r was almost universally lost.	400, 495, 877

Table 4-2 (continued)
Etymologies of word-classes coded for final stressed (e) in this study

Modern orthography	Summary development	Sections in Pope (1952) (unless noted)
-et	Late / Mediaeval Lat. -etų > /-ε/ by 12th c. Similar etymology also for Mod. Fr. *pied* (in this case, the final vowel opened once it became final)	*Cf* Bloch & von Wartburg 1932, *s.v. complet, discret*
-ez	Late Lat. –(ĕ)atis > O.Fr. –(i)ẹts Loss of final post-vocalic consonants from 12th c. (see above) Generalisation of –*ez* ending (absorbing previous forms in –*iez*) from Middle French (from 14th c.)	(Pope) §§896, 908
est **(verb)**	Lat. ẹst > Old Fr. ẹst Loss of final post-vocalic consonants from 12th c. (see above)	951 (Old Fr.)

4.2.3   (e) in Modern French

The distribution of word-final /ε/ and /e/ in Modern French is therefore complex, and we need to be careful to distinguish two ways of considering it: the normative (based on dictionary pronunciation guides, usage guides and pedagogical texts) and the descriptive (based on observed usage).

Table 4-1 above (Orthography of tokens of (e) used in this study) summarises the normative pronunciations of the various word-classes coded in this study. Normatively, then, /ε/ and /e/ are cited as separate phonemes of French; this is the stance taken by the *Bon Usage* grammar (Goosse 1993: 33) and by major dictionaries (Mansion 1980: xxvi

(Harrap's *Standard*); Atkins, Duval & Milne 1987: xxv (*Collins-Robert*); Robert 1989: xxi (*Le Robert*)).

Descriptively, two points of view on the pronunciation of /ɛ/ and /e/ in final stressed open syllables can be distinguished. Different authors report either that the two normative pronouns are merged in that position, or that they are kept separate along (largely) etymological lines. The difference between these two positions can often be explained by reference to the population surveyed by the author in question: for example, the realisation of mid-vowels as close in open position and open in closed position has long been recorded as characteristic of most regional French varieties of the South of France (again, the *Loi de Position*: see Séguy 1950: §39, Durand 1976: 7-8). Not all studies which record /ɛ/ and /e/ as merged for their populations record the height of the merged vowel but, of those studies which do record the merged vowel's height, the predominant tendency is for the *Loi de Position* to be respected (therefore, for the merged vowel to be high-mid).

As far back as 1902, Nyrop had remarked that /ɛ/ in final stressed open position was tending to be raised to /e/ (Nyrop 1902: 75), though he does make the interesting note that one of the places where /ɛ/ was resisting raising was in the first-person singular

conditional ending <-ais>,[28] in order to distinguish it from the future <-ai> (which is normatively pronounced /-e/). The strong and consistent distinction between <-ais -ait -aient –aie>, pronounced /ɛ/, and <-ai> (verb ending),[29] pronounced /e/, is a characteristic of most Canadian French today.

However, just as for the (a) variable, so for (e) the most important comparatively early reference on the French of France is Martinet (1945), a study of pronunciation self-reports by Martinet's fellow-prisoners in a prisoner-of-war camp for French officers. For /ɛ/ and /e/, many questions in his survey are aimed at discovering the distribution of the phonemes among word-classes, and he acknowledges (1945: 122) that such a lot of phonetic detail in a study which is essentially phonological may seem out of place; but he includes them because

> 'the nature of the relationship between two phonemes is characterised by the uncertainty of the distribution almost as much as by a real neutralisation. In the case of the two phonemes [/e ɛ/], this uncertainty is such that each subject can very well distinguish perfectly between two phonological units, as far as he personally is concerned, but he must abstract away from this distinction if he wants to understand the people around him: for myself, I distinguish between *poignée* ['door-handle'] and *poignet* ['wrist'], but, since many of my contemporaries pronounce *poignée* exactly like *poignet*, I am obliged, in order to distinguish between these two words, to rely on context (the article in the singular, the meaning

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[28] Nyrop notes this only as the conditional ending, but presumably the homophonous imperfect active endings are also included.

[29] Nouns ending in <-ai>, such as *geai* 'jay', can show variation between /e/ and /ɛ/ for their final vowel in Canadian French.

of the sentence in the plural) rather than on a phonetic difference. The Frenchman is obliged, willy-nilly, to be tolerant in this matter.'[30]

(Martinet 1945: 122; my translation)

Martinet's general conclusion is, then, that the merger of /ɛ/ and /e/ in stressed final open position is fairly widespread, a situation which may be driven by a low functional load for the distinction. Accordingly, his results for this question (1945: 116ff) show that the majority of his survey areas had a relatively high percentage of respondents who said they had only one (e) phoneme: that they pronounced *piqué* 'stung', *piquet* 'stake' and *piquait* 'was stinging' all alike. (For the purposes of this survey, Martinet divided France into 12 survey-areas, and the organising principle for the maps is the difference between the South of France and the rest of the country. Separate percentages are calculated for each survey area, and the Midi (the South of France) is one of these; areas are then shaded according to whether or not their percentage was higher than the average percentage for non-Southern France.) For (e), 40% of Midi respondents had a single (e) phoneme, and the average for France apart from the Midi was 10%, a clear break. However, in five of the eleven non-Southern survey areas, an above-average percentage

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[30] '[La] nature des relations entre deux phonèmes est caractérisé [*sic*], presque autant que par une véritable neutralisation, par l'incertitude de la distribution. Cette incertitude, dans le cas des deux phonèmes é et è, est telle que chaque sujet peut fort bien, pour son compte personnel, distinguer parfaitement entre deux unités phonologiques, mais il est tenu de faire abstraction de cette distinction s'il veut comprendre ceux qui l'entourent: je distingue pour ma part entre *poignée* et *poignet*, mais comme beaucoup de mes contemporains prononcent *poignée* exactement comme *poignet*, je suis contraint, pour distinguer entre ces deux mots, de me fonder plutôt sur le contexte (l'article au singulier, le sens de la phrase au pluriel) que sur une différence phonétique. Bon gré, mal gré, le Français est tenu à la tolérance en cette matière.'

of the respondents said they had only one phoneme (e); the exceptions were Paris and

areas in the West and the East of France (non-Southern regions with less than the non-

Southern average percentage of single-phoneme respondents).

Martinet (1945)'s results for Normandy show no particular bias in the way in which (e) is

divided up (Table 4-3). It is worth noting, however, that the 33% of Normandy

respondents who had a single (e) phoneme (no contrast between any of the three tested

words) represents the second-highest one-phoneme percentage among the non-Southern

sample areas. The only higher non-Southern percentage is the South-West, which is

immediately adjacent to the South and not always distinguished from it, at 36%; the

South itself has 40%.

	Percentage	Presumed N
1 (e) phoneme *piqué = piquet = piquait*	33%	4/12
2 (e) phonemes *piqué ∥ piquet = piquait* or *piqué = piquait ∥ piquait*	41%	5/12
3 (e) phonemes *piqué ∥ piquet ∥ piquait*	25%	3/12

Table 4-3
Normandy (e) results from Martinet (1945: 116ff)
∥ 'contrasts with'
= 'does not contrast with'

In the time between Martinet's study and the recent inception of the *Projet 'Phonologie du Français Contemporain'* (PFC)[31] (Durand, Laks & Lyche 2002, 2005), phonological studies which investigate the distinction between /ɛ/ and /e/ outside Paris are scarce. The studies which it has been possible to consult show that subjects from most parts of the South of France respect the *Loi de Position*, merging /ɛ/ and /e/ in this context to [e] (Deyhime 1967a, b; Walter 1982). On the other hand, most Parisian subjects maintain a phonemic distinction between /ɛ/ and /e/ and so contrast them in word-final stressed position, dividing the word-classes largely as shown in Table 4-1 (Léon 1972; Martinet & Walter 1973; Walter 1976; Lennig 1978) (though Peretz' (1977) sample shows a slightly different division of the word-classes).

Studies of (e) from North of the Midi but outside Paris have varying results. Arnaud (2006), for Franche-Comté (eastern France, at the Southern limit of the *langue d'oïl* area), says simply (2006: 261) that the *Loi de Position* is respected there; this conclusion is not shared by Walter (1982: 162), who notes that /ɛ/ and /e/ are distinct for her Franche-Comté informant. An interesting result as far as this Normandy study is concerned is that of Lefebvre (1991), in the Lille region, in the far North of France (160mi / 260km North-East of Rouen). Lefebvre finds (1991: 75ff) that, in conversational

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[31] 'Phonology of Contemporary French' Project.

style, 77% of her informants never make a distinction between /ɛ/ and /e/ in final stressed open position. The percentage who never make a contrast does decline with increasing formality of style, so that only 50% of informants never make a distinction in minimal pairs; but this is still a high percentage of merger. It correlates well with the higher-than-expected percentage of mergers found in this study of Normandy (see below); and we should also note Martinet's (1945: 116ff) report that the percentage of his subjects from the Lille region who merged /ɛ/ and /e/ in this position was higher than the average for non-Southern subjects (at 27%, compared to a non-Southern average of 10%). The disparity between Martinet's subjects' self-reported 27% and Lefebvre's subjects' 77% can no doubt be explained by the style of the test (Martinet's was self-report, whereas Lefebvre's was an interview), possibly by the social status and sex of the informants (Martinet's informants were all (male) army officers, probably upper-middle class or upper-class, whereas Lefebvre's were 10 women and two men of various social statuses), and by the time-lapse of over forty years between the studies. 27% is clearly not a majority of Martinet's subjects from the region – 50% of his subjects maintain a distinction in this position – but it is still notable that 27% is higher than the non-Southern average.

Since the inception of the PFC project, a number of short studies of vowel-systems from all parts of France have been published, and the conclusion is largely the same: French-

speakers from the South of France merge /ɛ/ and /e/ to [e] in final stressed open position, whereas speakers from North of that region do not. Recent examples are Coquillon (2007) on Marseille French and Lonnemann & Meiseburg (2007) on the French of Lacaune, between Toulouse and Montpellier (West of Marseille). The *Loi de Position* is also reported as persisting in at least some speakers of Southern French varieties transplanted to the North: Pustka (2007) notes this for a 52-year-old female speaker from the Aveyron who has lived in Paris since the age of 19, and the same tendency can be seen in the data of Deyhime (1967a, b). However, since these speakers all moved to Paris once they had passed puberty, and would therefore have found it very difficult to acquire new features, it is not surprising if they have retained characteristics of their local phonologies.

4.3   Previous studies of (e) in Normandy

Studies of the Regional French of Normandy display a notable lack of consensus regarding the variety's treatments of /ɛ/ and /e/ and the relationship between them. The following points of view are all attested.

- /ɛ/ → [e] and /e/ → [ɛ] ('switching' the realisations of /ɛ/ and /e/): Lepelley (1975, as quoted above) gives the examples

  couché 'lying down' (passive past participle) → [kuʃɛ]

couchait 'was lying (something) down' (imperfect active) →[kuʃe]

- Contrast between /ɛ/ and /e/ not maintained (but no predominant realisation given): Walter (1977, 1982), for a site in the Manche *département*

- /ɛ/ and /e/ merged to [e]: Tyne (2003), for Cherbourg (a medium-sized town in the Manche *département*)

- /ɛ and /e/ merged to [ɛ]: Schortz (1998) for Senneville-sur-Fécamp (rural Upper Normandy), and Carton *et al* (1983) for Écoquenéauville (rural Manche). Carton *et al*'s speaker is in fact from the rural sample area for this study (Écoquenéauville is in the *canton* of Ste-Mère-Église); she was recorded in 1956 at the age of 60, so she was born approximately a generation earlier than the oldest speakers in this study (the oldest speaker analysed here was born in 1918).

In the light of such divergent opinions about the status of (e) in Normandy, it is perhaps surprising that this study has a very clear result (especially in the rural site): the majority of informants here merge /ɛ/ and /e/ to [e].

4.4   Coding of (e) in this study

As is mentioned in §2.7 (Methodology) above, this study examines approximately 30 tokens of /ɛ/ and 30 tokens of /e/ per speaker, in each of two styles (Interview and Formal Methods): this gives a target of 120 tokens of (e) per speaker. Sometimes, this target was

not reached, either because interviews were too short or because a given speaker did not give data in one of the styles (a few were interviewed but did not perform Formal Methods tasks, and a few performed Formal Methods tasks but were not interviewed).

4.5   (e) in Normandy: results from this study

The remaining part of this chapter, reporting on the phonetics and phonology of (e) in Normandy, will show the sociolinguistic results for (e), giving details first of the phonetics of the merger (where in the vowel-space the merged phoneme is located) and then of its phonology (the fact that there is a merger for the majority of informants). Where it is useful, the alignments in height and advancement will be discussed separately. However, in this section, the rural and urban sites will not be discussed separately, as was done for (a), since a point-by-point direct comparison of the sites is more instructive for this variable.

4.5.1   The phonetics of (e) in Normandy

As the phonetics section of Chapter 3 did for (a), so the phonetic section of this chapter on (e) aims to answer the question of where in the vowel-space the merged phone falls, when /ɛ/ and /e/ are merged. As is shown by the review of different findings on (e), above, this is a question of importance: almost all the possible conclusions about this variable are attested (in that studies have found the phones merged at [ɛ], the phones

merged at [e], and the phones 'switched' so that /ɛ/ → [e] and /e/ → [ɛ]). What, then, is

the situation in the two Normandy communities examined here? Given that there is so

much variability in previous findings on this variable, the answer to this question will be

a key element in the diagnosis as to whether there is in fact a single Normandy speech

community or not.
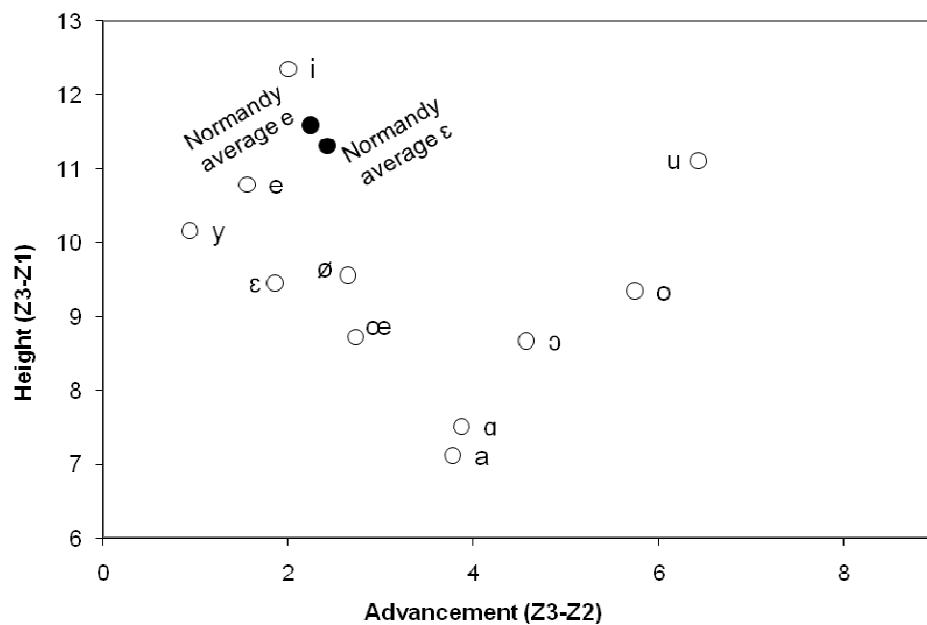
Figure 4-2
Normalised reference values for the French of France (Durand 1985)
with mean values for /ɛ e/ from this study's data

| **Legend** |
| • Normandy /ɛ e/ from this study |
| ○ Reference vowels for the French of France (Durand 1985) |
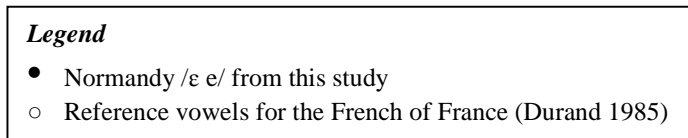
The short answer to the question of where the Normandy merged phone falls in the vowel space is that it is higher than either of the unmerged phones /ɛ/ or /e/ (in reference Standard French), but not as high as /i/, and it is approximately as far front as unmerged /ɛ e i/. Figure 4-2 shows the mean Normandy /ɛ/ and /e/ separately, superimposed on Durand (1985)'s set of reference vowels for the French of France;[32] we would reach the same conclusion no matter which set of reference vowels were used, though, since in fact the mean positions of /ɛ e/ do not vary much between different sets from the same region, or even between different sets from different parts of the world (*cf* CALLIOPE 1989 for the French of France, Université Laval 2001 for Canadian French).

In terms of the sociolinguistic status of (e) in Normandy, the overwhelming picture emerging from these data is that the variable is stable in both the urban and the rural communities. Statistical significance is difficult to assess in such a large sample (since even the smallest differences can have very low probabilities associated with them, thanks to the number of tokens in the samples being compared). Nevertheless, visual inspection of the trends for both height and advancement in the urban and rural communities shows that there is no movement between the age-groups in either community (Figure 4-3). IV style is illustrated; FM style shows the same tendency.

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[32] Durand (1985)'s Hertz values have been normalised using Thomas & Kendall's Bark Difference Metric (Thomas & Kendal 2007). For further details of the procedure, see Ch2, §2.8 above ('Normalisation').
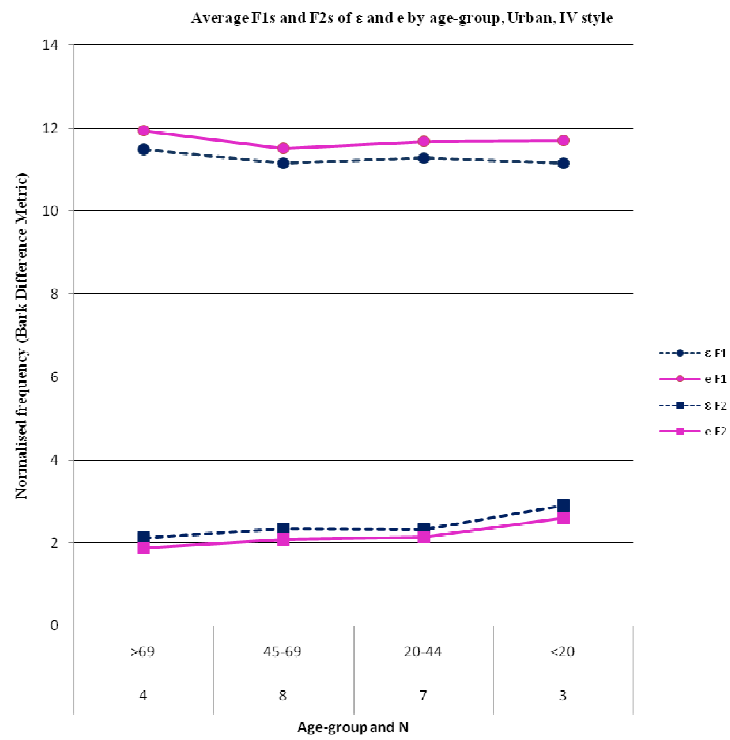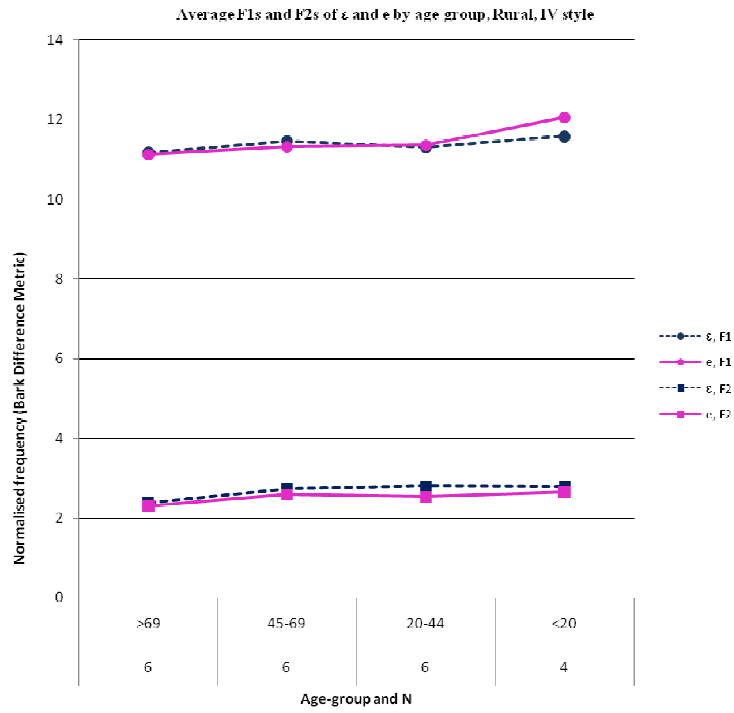
Figure 4-3

top: average F1s & F2s of /ɛ/ and /e/ by age-group. rural, IV style

bottom: average F1s & F2s of /ɛ/ and /e/ by age-group, urban, IV style

We receive further confirmation that the position of the merged phone in (e) is not moving in apparent time when we inspect scatterplots of mean values (Figure 4-4). In both La Bonneville and Darnétal, the individual means are tightly clustered in the area of

Individual means of /ʔ/ and /e/ by age, Rural, IV style

Individual means of /ʔ/ and /e/ by age, Urban, IV style
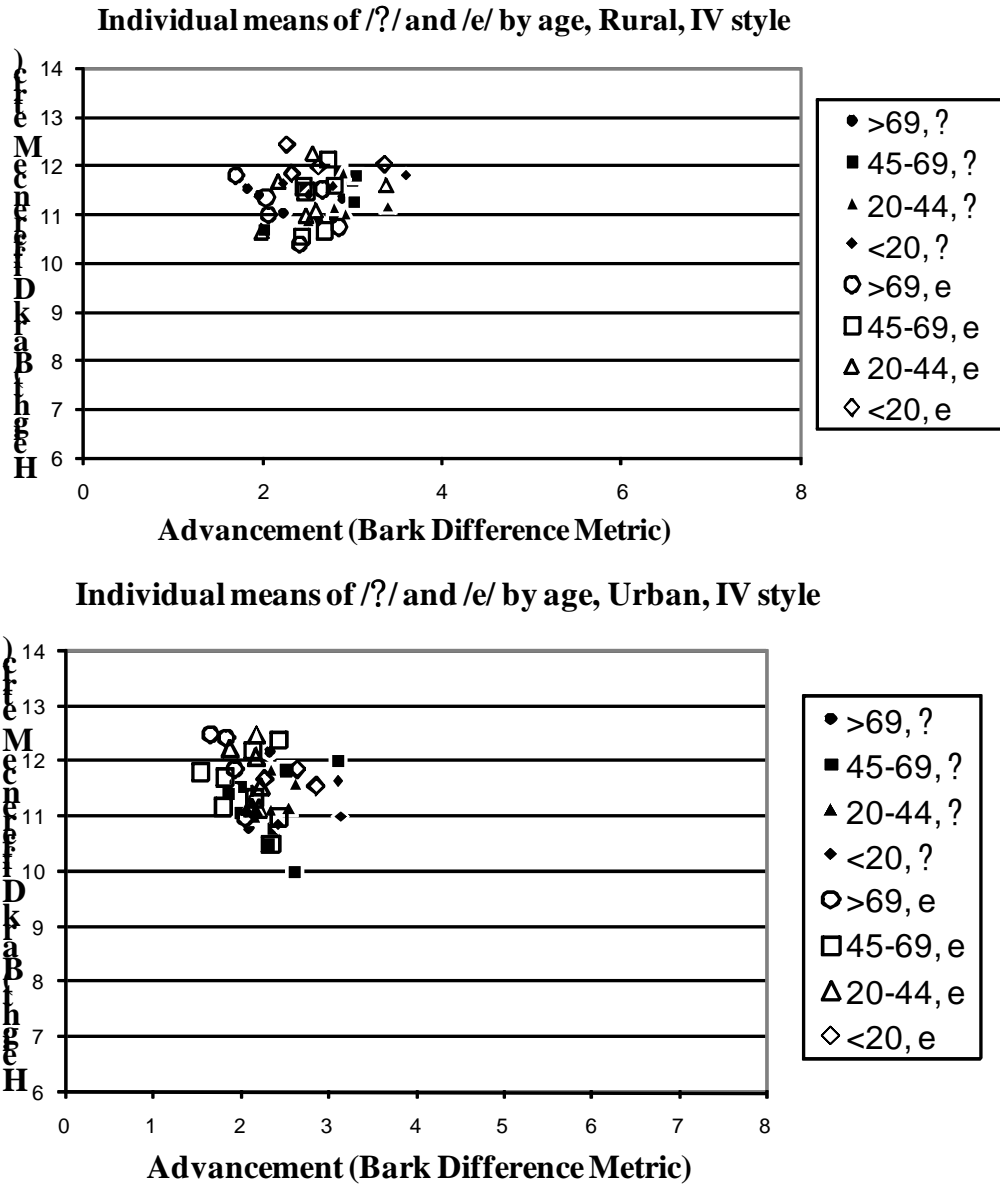
Figure 4-4
top: (e): individual means distinguished by age-group, rural, IV style
bottom: (e): individual means distinguished by age-group, urban, IV style

the merged phone (see Figure 4-2). In Figure 4-4, there appears to be a slight tendency for both /ɛ/ and /e/ to be frontmost in the oldest age-group, slightly backer in the two middle age-groups and backmost in the youngest age-group (particularly in the rural site, above), but the differences are not significant. In both sites, the mean clusters in Figure 4-3 appear globular, the usual appearance of token clusters for vowels not undergoing change (William Labov, p.c.). Figure 4-4 shows distributions in IV style; again, the distributions in FM style are similar.

There is similarly little to say about the distribution of the phonetics of (e) across the sexes. It does not change in apparent time. In Darnétal, t-tests taken across individuals' mean (Bark-normalised) height and advancement values show no significant differences between /ɛ/ and /e/ for men or women (at $p < 0.05$); in La Bonneville, men and women have /e/ significantly different in advancement at this level, but it is likely that this difference is at least partially due to one male informant whose advancement values for both /ɛ/ and /e/ are unusually back. When his values are excluded, La Bonneville men and women still have /ɛ/ and /e/ significantly different, but the p-value is closer to 0.05.

Another characteristic of a stable sociolinguistic variable is that it has a monotonic distribution in socioeconomic class. We do find, at least, consistent patterns in SEC for (e) in our two communities, though the patterns are different in the two communities. In La Bonneville, in IV style (where we expect the most consistent data anyway), both /ɛ/

and /e/ get lower as SEC gets lower (and no SEC group has /ɛ/ and /e/ significantly

different: *cf* Figure 4-5). The lowering of /ɛ/ and /e/ between LMC and LWC is not
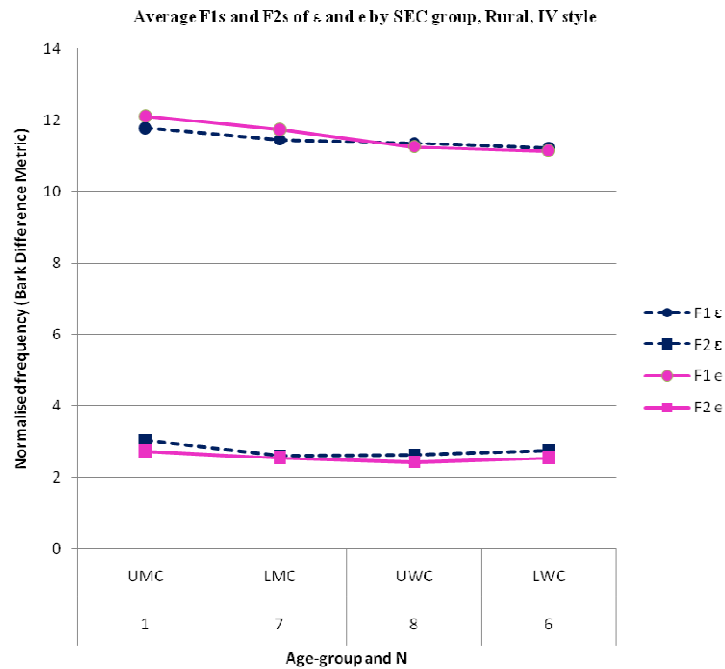
Figure 4-5

Average F1s & F2s of /ɛ/ and /e/ by SEC group, rural site, IV style

significant (significance could not be measured between UMC and LWC because

N(UMC) = 1 in IV style), but visual inspection of the chart does show lowering. In FM

style, there may be hypercorrection by the LMC (the second-highest SEC group; *cf*

Labov 1972: 122ff). The LMC has (merged) /ɛ/ and /e/ higher than UMC and UWC have

them (Figure 4-6). /ɛ/ and /e/ in LMC are significantly higher than in UWC ($p < 0.05$).

For advancement, the trends are flat in both IV and FM styles: no two adjacent SEC

groups have significant differences for either /ɛ/ or /e/.

In Darnétal (IV style), there is a significant height difference between /ɛ/ and /e/ only in
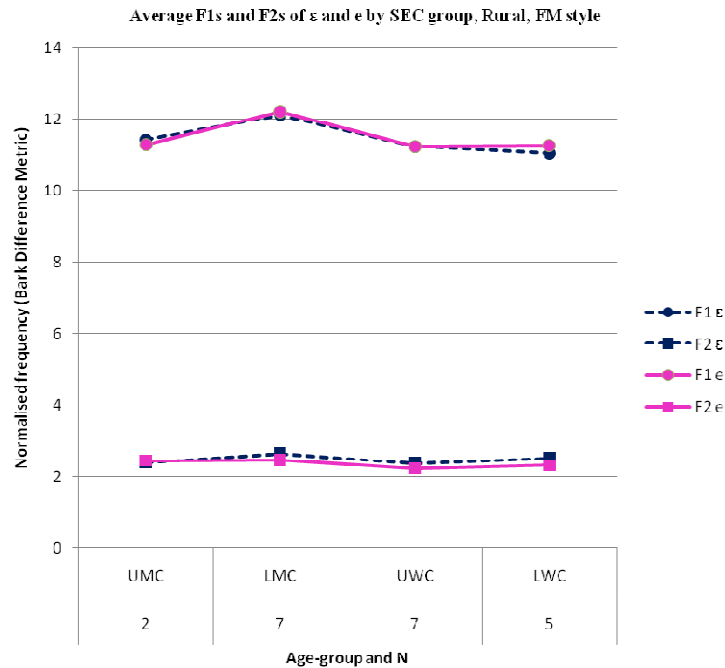
Figure 4-6
Average F1s & F2s of /ɛ/ and /e/ by SEC group, rural site, FM style

the UMC – all other SEC groups have /ɛ/ and /e/ merged – but /ɛ/ and /e/ do not get lower

as SEC gets lower; the trend in SEC is much flatter than it is in La Bonneville. No two

adjacent groups have significant height differences between /ɛ/ and /e/, in either IV style

or FM style. For advancement, as in La Bonneville, no two adjacent SEC groups have

significant differences for either /ɛ/ or /e/: the trends are flat.

4.5.2 The phonology and sociolinguistics of (e) in Normandy

The most striking result from this study of (e), in either site, is illustrated by Figure 4-7. It shows that 89% of rural females have merged /ɛ/ and /e/ in IV style, and 67% in FM style. The males' proportion of mergers is not as high in IV style (62%), but it is higher in FM style (75%); overall, then, 16/22 rural speakers have mergers in IV style (73%), and

Mergers by sex, IV and FM styles
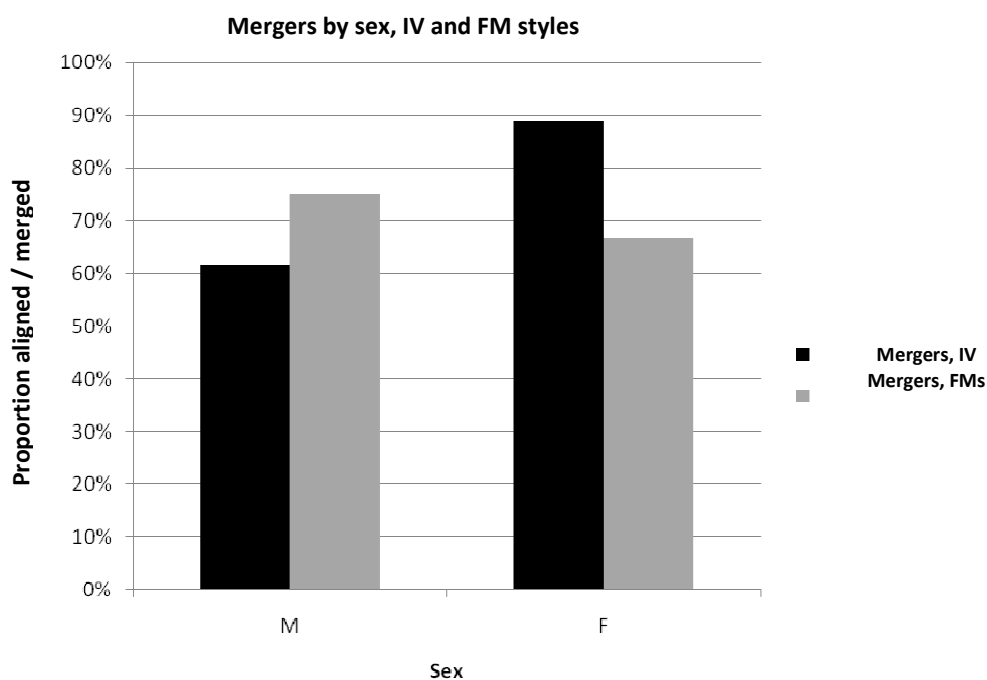
Figure 4-7
(e): mergers by sex, rural site

	M	**F**
IV	8 / 13	8/9
FM	9 / 12	6/9

Table 4-4
(e): mergers by sex, rural site
(N with merger) / (Total possible N in cell)
Ns are different between IV and FM for males because one male informant did not do Formal Methods

14/21 (67%) in FM style. The difference between males and females is not significant in either IV style or FM style, and the overall difference between the styles is not significant, but the figure convincingly demonstrates the very high proportion of mergers of /ɛ/ and /e/ in our rural site.

The high proportion of mergers of /ɛ/ and /e/ in the rural site (Figure 4-7) is in sharp contrast to the proportion in the urban site (Figure 4-8). In the urban site, no females have
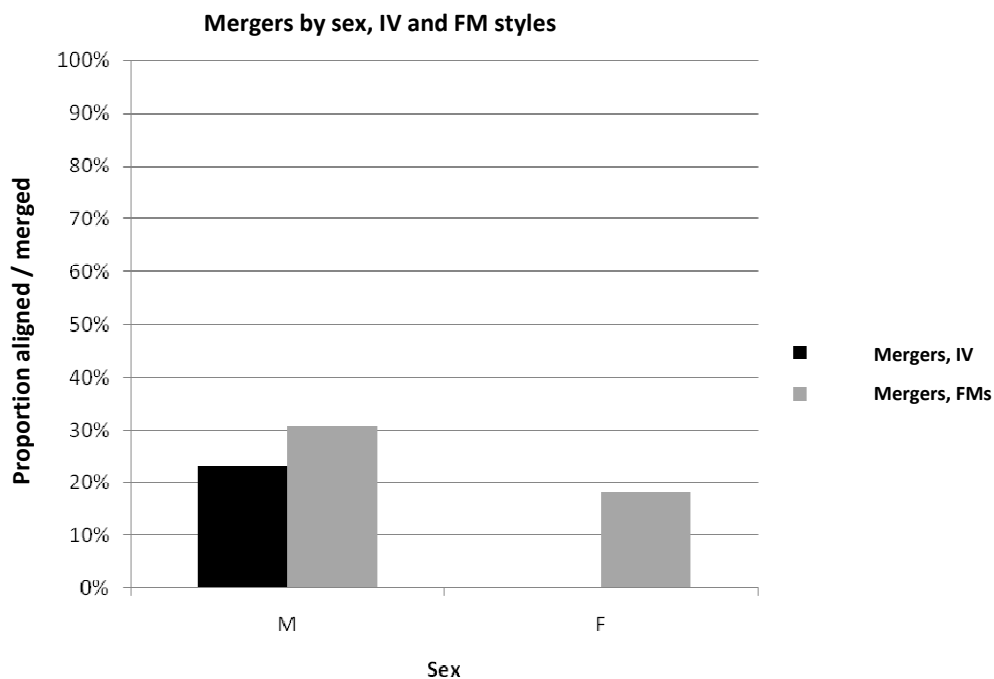
Figure 4-8
(e): mergers by sex, urban site

	M	**F**
IV	3 / 13	0/9
FM	4 / 13	2/11

Table 4-5
(e): mergers by sex, urban site

mergers in IV style, and the overall number of mergers across both styles and sexes is

much lower. This is the first suggestion in the (e) data that, for this variable (at least), La

Bonneville and Darnétal may not belong to the same speech community.

If we now introduce data on the (separate) height and advancement alignments (Tables 4-6 to 4-9), we see that in both the rural and the urban communities there are more height

	M	F	Total
IV	10 / 13	9/9	19/22
FM	11 / 12	8/9	19/21

Table 4-6
(e): height alignments by sex, rural site

	M	F	Total
IV	11 / 13	8/9	19/22
FM	10 / 12	6/9	16/21

Table 4-7
(e): advancement alignments by sex, rural site

	M	F	Total
IV	8 / 13	7/9	15/22
FM	7 / 13	5/11	12/24

Table 4-8
(e): height mergers by sex, urban site

	M	F	Total
IV	5 / 13	1/9	6/22
FM	4 / 13	3/11	7/24

Table 4-9
(e): advancement alignments by sex, urban

alignments than advancement alignments, though the difference is only very slight in the

rural community (because, in the rural community, there are more of both types of

alignment). In particular, it is striking that all the rural females have a height alignment of

/ɛ/ and /e/ in IV style, and all but one of them have a height alignment in FM style. Even

for the one rural female who does not have a height alignment in FM style (<20yrs, LMC), the difference of 34Hz between the means of /ɛ/ and /e/, though significant, is not large.

It would not be wise to draw far-reaching conclusions based on this small amount of data, especially since none of the possible differences within the data are significant: rural males are not significantly different from urban males, nor are rural females from urban females; and, within each site, neither sex has a significant difference between the two speech-styles tested. However, it is notable that (especially in the rural site) the configuration of the data for height alignments is very similar to the configuration of the data for mergers. In IV style females have a greater proportion of both height alignments and mergers than do males; and females have a greater proportion of mergers in IV style than in FM style, though the opposite is true for males.

Across the two sites, it is generally true that both sexes have greater proportions of height alignments than of advancement alignments (though the difference is not significant; the one exception is rural males in IV style, who have a greater proportion of advancement alignments (11/13) than of height alignments (10/13)). Since the difference is not significant, no firm conclusions can be drawn. However, I suggest, based on the similarity between the height-alignment distribution and the merger distribution, and the generally greater proportion of height alignments than of advancement alignments, that if

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a speaker has an advancement alignment then they are likely to have a merger. This may suggest that a characteristic feature of RFN is (at least) a height alignment between /ɛ/ and /e/ in stressed final position. In many cases, though not all, this height alignment will be accompanied by an advancement alignment, giving rise to a merger, as documented in other studies of RFN. The reason for the primacy of the height alignment may be that the advancement alignment is more salient to speakers, though conclusions on this point will have to await specific perception-based research.

Dividing these data by age, to give their distribution in apparent time, shows again that Darnétal and La Bonneville may not belong to the same speech community for this variable, though again the conclusions we can draw are limited by the small cell totals when many sub-divisions of the data are introduced (meaning that the differences between adjacent age-groups, though noticeable, are not significant).

Again, in each community we see that the configuration of mergers and the configuration

Height alignments by age, IV and FM styles
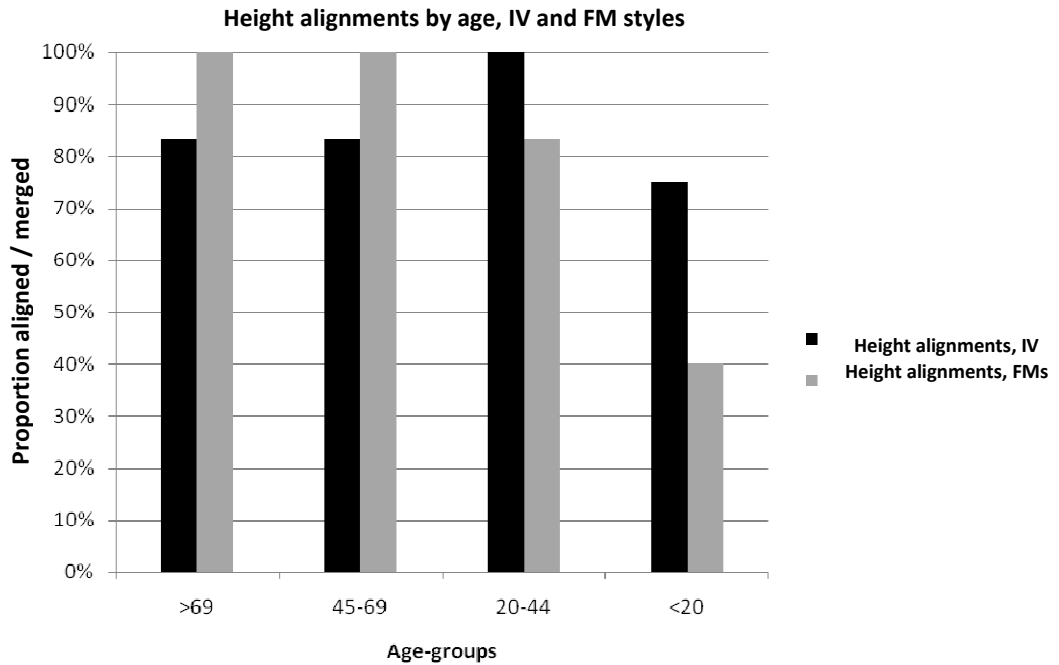
Figure 4-9
(e): height alignments by age-group, rural
site

	>69	**45-69**	**20-44**	**<20**
IV	5/6	5/6	6/6	3/4
FM	4/6	6/6	5/6	2/5

Table 4-10
(e): height alignments by age-group, rural site

of height alignments are similar in some respects. In this case, the similarity (and the

recognisable pattern) in each community is in the treatment of (e) in FM style, but,

interestingly, the communities differ in their treatments of the variable. In La Bonneville

(Figures 4-9 and 4-10), both height alignments and mergers decline monotonically after

the 45-69yrs age-group; in Darnétal (Figures 4-6 and 4-7), height alignments and mergers

Mergers by age, IV and FM styles
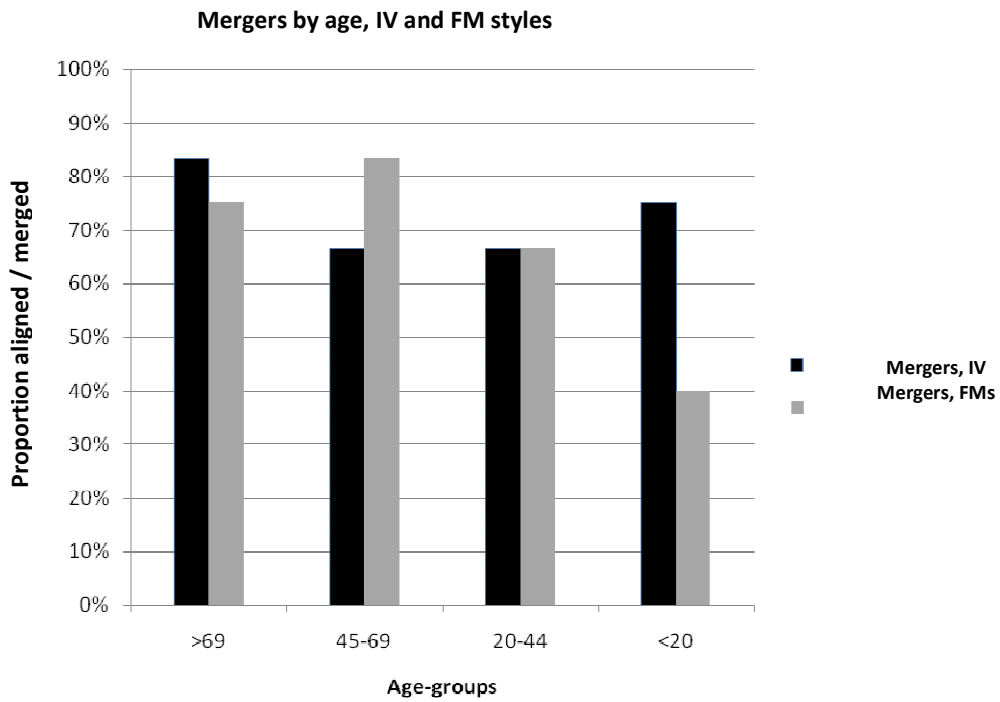
Figure 4-10
(e): mergers by age-group, rural site

	>69	**45-69**	**20-44**	**<20**
IV	5/6	4/6	4/6	3/4
FM	3/6	5/6	4/6	2/5

Table 4-11
(e): mergers by age-group, rural site

both increase after that age-group. The apparent-time treatment of (e) in IV style is less

regular.

Height alignments by age, IV and FM styles
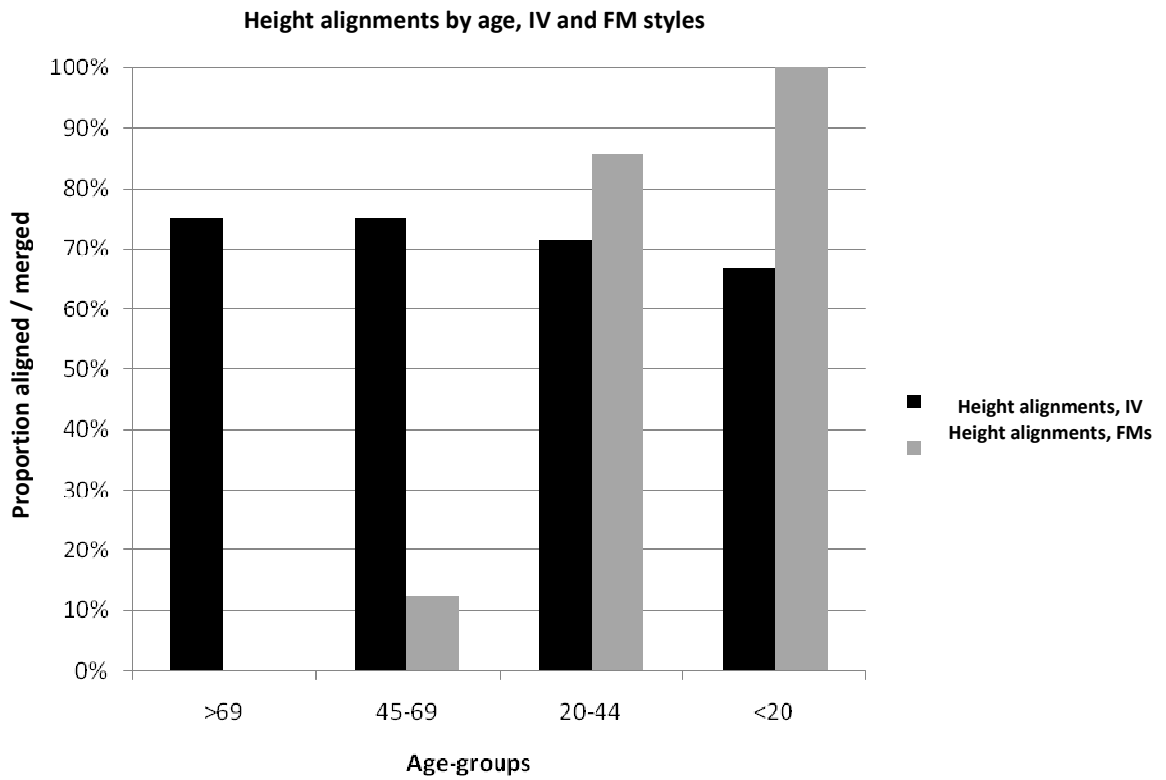
Figure 4-11
(e): height alignments by age-group, urban
site

	>69	45-69	20-44	<20
IV	3/4	6/8	5/7	2/3
FM	0/4	1/8	6/7	5/5

Table 4-12
(e): height alignments by age-group, urban
site
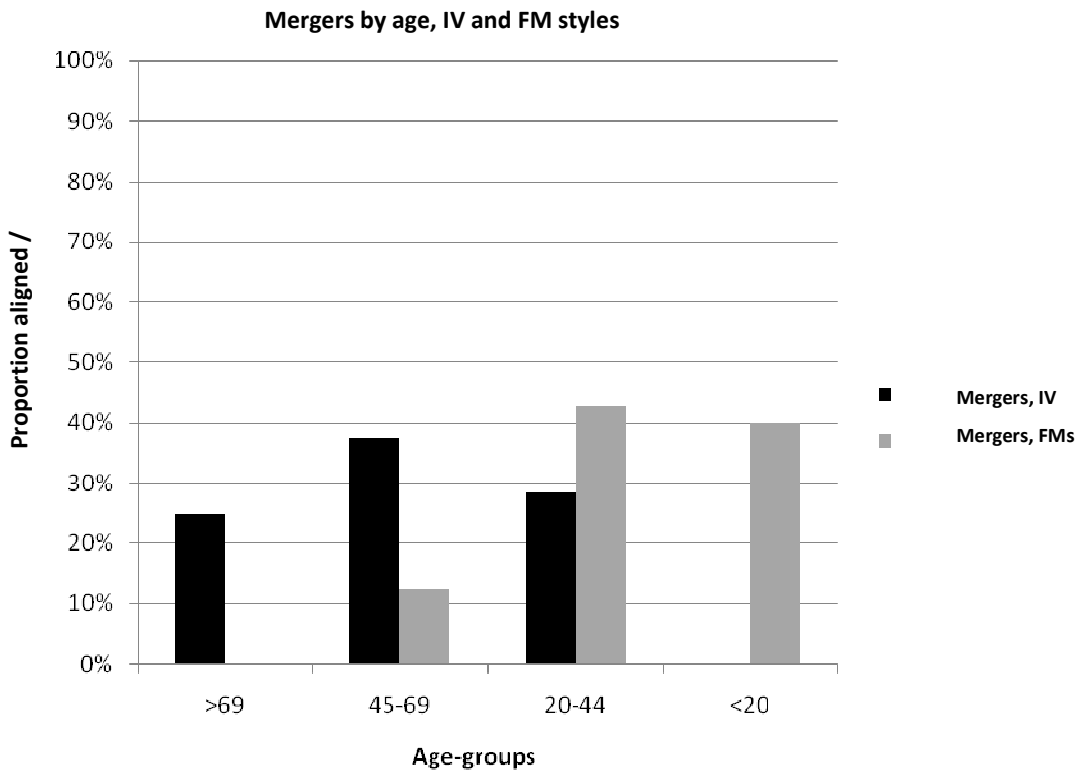
Figure 4-12
(e): mergers by age-group, urban site

	>69	45-69	20-44	<20
IV	1/4	3/8	2/7	0/3
FM	0/4	1/8	3/7	2/5

Table 4-13
(e): mergers by age-group, urban site

The picture which emerges when (e) is crosstabulated by SEC is less clear (Figures 4-13

and 4-14), but it should be noted that, in both La Bonneville and Darnétal, the percentage
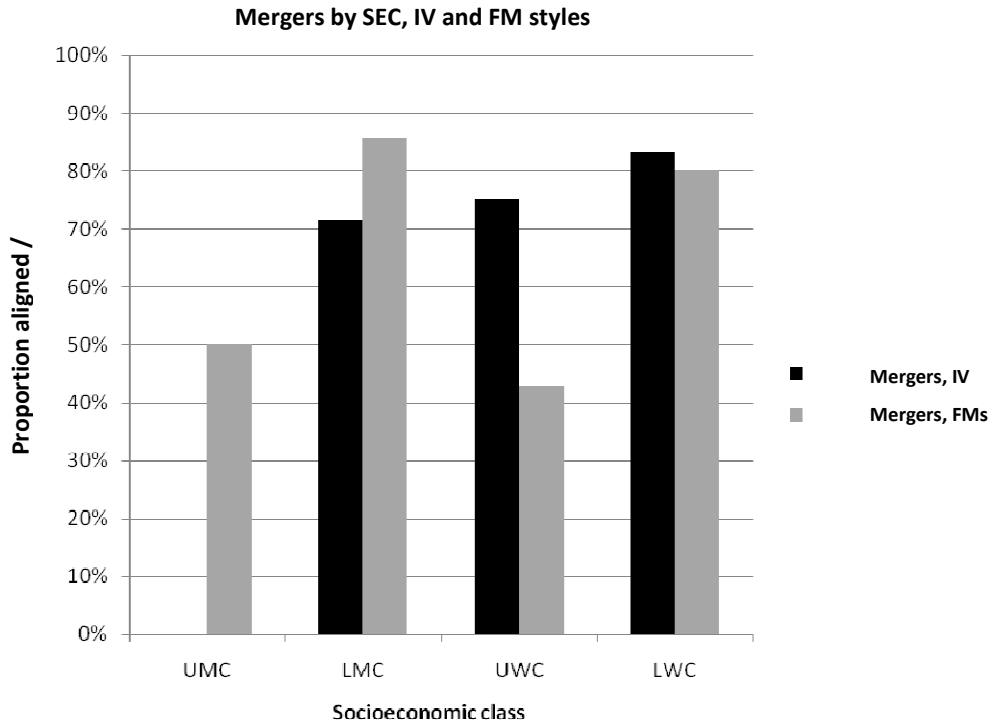
Figure 4-13
(e): mergers by socioeconomic class, rural site

	UMC	LWC	UWC	LWC
IV	0/1	5/7	6/8	5/6
FM	1/2	6/7	3/7	4/5

Table 4-14
(e): mergers by socioeconomic class, rural site

of mergers in each group does increase as SEC decreases. Because of the small cell totals, the trends are not significant, but they do go in the expected direction if the merger of /ɛ/ and /e/ is an unprestigious feature: the LWC has the highest proportion of mergers, in both sites, in IV style (where we expect the most systematic data).

Mergers by SEC, IV and FM styles
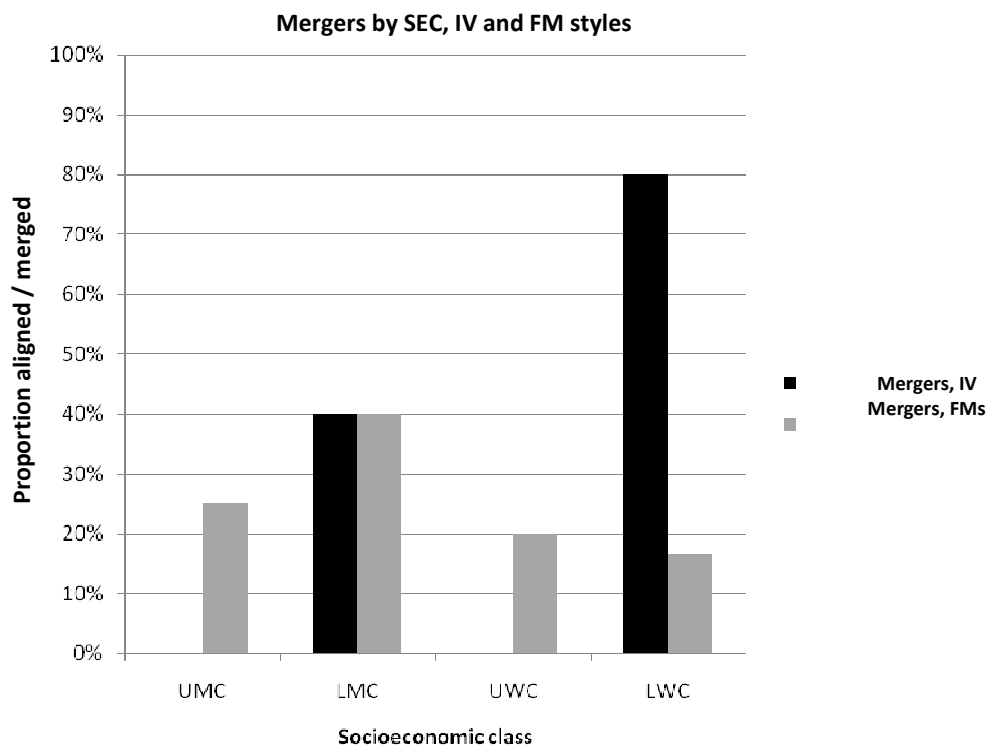
Figure 4-14
(e): mergers by socioeconomic class, urban site

	UMC	LWC	UWC	LWC
IV	0/8	2/5	0/4	4/5
FM	2/8	2/5	1/5	1/6

Table 4-15
(e): mergers by socioeconomic class, urban site

4.6   Conclusion[33]

Let us review our findings on (e). From §4.5.2 (phonology), above, we can see that the

merger of /ɛ/ and /e/ is present in both La Bonneville and Darnétal, though it is much

more prevalent in La Bonneville – where almost all females, and many males, have an

---

[33] The analysis in this section owes much to fruitful discussions with Michael Friesner.

alignment in both height and advancement – than in Darnétal. Across both sites, height alignments are more common than advancement alignments. In La Bonneville, we can say that females have greater rates of merger (and height alignment) than males, but it would be unwise to draw this conclusion about Darnétal, since mergers are much less common there overall.

The apparent-time division of the data (in FM style) shows that the social evaluation of the merger of /ɛ/ and /e/ has changed over time. This is particularly clear in Darnétal, where mergers decline in apparent time in Formal Methods style, but they increase in apparent time in Interview style (Figure 4-12). Since there are much higher rates of merger in La Bonneville than in Darnétal in general (Figure 4-7), we can interpret the Darnétal apparent-time pattern as indicating that older urban informants view a merger as a rural feature and stigmatise it; they therefore avoid it in their more formal speech. Younger people, on the other hand, view a merger as a prestige feature, perhaps because of its prevalence in nearby Paris in particular: they therefore have higher rates of merger in their formal speech.

In La Bonneville, rates of merger decrease monotonically as age decreases (from the 45-69yrs age-group downwards). The cell-sizes which lead to this conclusion are small, so, again, it would be unwise to draw deep conclusions from them, but this result does

indicate that the two sites studied here may not form part of the same speech community as far as (e) is concerned.

Finally, when the data are cross-tabulated by socioeconomic class, similar patterns are revealed in La Bonneville and Darnétal. In both places, rates of merger increase as SEC decreases, though, again, the small overall number of mergers in Darnétal must make us cautious about drawing wide-ranging conclusions on this basis.

Phonologically, then, we have a picture of a variable whose social evaluation is changing towards being more prestigious, a development which is likely to be linked to its prevalence in much of France, and particularly in Paris. From the phonetic data, on the other hand, it seems clear that, for speakers who merge /ɛ/ and /e/, the position of the merged phone is not changing in either La Bonneville or Darnétal. Scatterplots of mean values for /ɛ/ and /e/ show that the two phonemes are very close together and form a 'globular' distribution; there are almost no significant differences when the data are cross-tabulated by sex, age or social class, and the 'globular' distribution shows that there is no particular trend for the variable to move in any direction. The position of merged (e) in the vowel-space is higher than either /ɛ/ or /e/ in any set of reference vowels, but it is not as high as /i/.

We therefore have a phonetic treatment of merged /ɛ/ and /e/ which is common to our two sites, but different rates of merger in each site, and a changing social evaluation of the merger, at least in Darnétal. Throughout Normandy, /ɛ/ and /e/, when merged, now seem to merge at a point which is at least as high as /e/ in Standard French. This treatment in itself would not be unusual, given what usually results from the application of the *loi de position*; but it may well represent a unification of the (phonetic) treatment of /ɛ/ and /e/ in Normandy. These two Standard French phonemes have previously been documented as being treated differently in different parts of the area, but it now seems that at least these two communities, at the two ends of Normandy, treat them in the same way. And yet, beside this unity of phonetic treatment, there are apparently different evaluations of the merger of (e) in our two study-sites. One community (La Bonneville) has very high rates of merger and the other (Darnétal) has very low rates. One community (Darnétal) appears to have the merger increasing in apparent time (possibly because it is seen by younger people as prestigious and as coming from Paris), while the other (La Bonneville) appears to have it decreasing (possibly because it is seen as an unprestigious 'rural' tendency). Once again, we may perhaps appeal to the notion of 'nested speech communities' for a theoretical framework by which to try to account for this situation: our two sites are clearly united in some (phonetic) aspects of their treatments of (e), but they are also clearly divided in other (sociolinguistic) aspects.

Chapter 5 The morpho-syntactic variable

(que)

5.0   Organisation of the chapter

This chapter presents my Normandy research on the acceptability and use of the 'doubly-filled COMP' (Chomsky & Lasnik 1977), also known as the 'double complementiser', in RFN. The variable will be referred to as (que), a name chosen because the variability here consists in optionally following *wh*-words with the subordinator *que* 'that' in RFN (and other non-standard varieties of French). I begin by defining the variable, stating what it does and does not include in terms of the grammar of Modern French; I go on to present a simple structural analysis of the variable (in the Government and Binding framework). This is followed by an account of the history of complementisers and *que* from Latin to

Modern French, including also Norman. The second half of the chapter describes the sociolinguistic study of (que) and its results, draws some conclusions on the sociolinguistic status of the variable, and proposes directions for future research on it.

5.1 Doubly-filled COMP: defining the variable (que)

The simplest way to define the variable for this part of the study is to say that the study examines the acceptability and self-reported use of two different ways in which sentences headed by the *wh*-words *comment* 'how', *où* 'where', *pourquoi* 'why', *quand* 'when' and *qui* 'who' can be introduced: with or without *que* 'that' following the *wh*-word. When they introduce such phrases alone (*i.e.* they are followed directly by a clause), syntactically they are in complementiser position, as in

Je lui ai demandé où il était.

I him have asked where he was

'I asked him where he was.'

(example sentence *b* in the Formal Methods task used for this study). We will call this construction 'singly-filled COMP use'. There is a non-standard alternative, however, whereby relative pronouns (any of the ones tested here, plus *combien* 'how much') can be followed by *que* and then the clause, as in

| Il | voulait | savoir | où | qu'il | pouvait | acheter | un journal. |
| He | wanted | to-know | where | that-he | could | buy | a newspaper |

'He wanted to know where he could buy a newspaper.'

(example sentence *d* in this study), which can be called 'doubly-filled COMP use'.

It is difficult to track down the first use of the term 'double complementiser' for this construction. It appears, for example, in Paoli (2002), which is a review of Cinque & Salvi (2001), an edited volume in which Benincà (2001) proposes an analysis of the feature as it occurs in some Italian dialects. The reason for the difficulty in finding the term is perhaps that it is imprecise, although it is iconic: it is iconic to the extent that the 'doubly' in the phrase recalls the fact that two words are performing a function which can be performed by one, but it is imprecise to the extent that there are not in fact two complementisers in the so-called 'doubly-filled COMP' construction. In the following analysis, the first word in such constructions will simply be referred to as a '*wh-* word', since it is only the second word (*que*) which can uncontroversially be described as a complementiser. Also, despite the imprecision of the term 'doubly-filled COMP', it will be retained as a way of describing the '*wh*-word + *que*' construction in this study, since it is iconic, convenient and widely-used.

One more fact is important to note. Double complementisers / doubly-filled COMPs should be carefully distinguished from the surface-similar free relative / indefinite

relative, but the difference is easy to see: in French, the verb of the subordinate clause after a complementiser is in the indicative mood (example a), whereas the verb of the phrase headed by a free / indefinite relative is in the subjunctive, to express counterfactuality, negativity or doubt (example b):

(a)   Complementiser *qui*, doubled:

Je   ne   vois pas   qui   que   c'est.

 I   NEG   see   not   who   that   it-is

'I can't see who it is.'   (non-standard French)

(b)   Free relative:

Je   ne   vois pas   qui   que   ce soit.

I   NEG   see   not   who   that   it be.SUBJUNCTIVE

'I'm not seeing anyone at all.'   (Standard French)

(examples mine)

If the verb of the subordinate clause is in the indicative, the construction is a non-standard doubly-filled COMP; if the verb following *que* is in the subjunctive, the *wh*-word + *que* still form a doubly-filled COMP, but the construction is part of Standard French with the verb in this mood.

Sociolinguistically, doubly-filled COMPs are a stigmatised feature of several non-standard varieties of French, including the Regional French of Normandy; this is the reason why the variable has been included in this study.

5.2   Doubly-filled COMP in theory

The starting-point for generative analyses of doubly-filled COMP is usually Chomsky & Lasnik's (1977) remarks on the construction, which were part of their more general programme 'to restrict the options for transformational grammar' (1977: 425). In their section on the complementiser system, they note:

> 'We assume that […] the rule *Wh* Movement places [moved *wh*-phrases] in the COMP position. There are languages, including earlier stages of English, that permit both the *wh*-phrase and the equivalent of the complementizer *that* to appear, as in […]:
>
> the man [COMPwho that] I saw
>
> […] Of course, [this example] is excluded in Modern English. To express this fact, we add to the grammar a surface filter […], thus enabling us to preserve the general rule of free deletion for COMP:
>
> *[COMP*wh*-phrase complementizer]
>
> We understand this filter to mean that a COMP containing both a *wh*-phrase and a complementizer is excluded, as ill-formed […].'
>
> Chomsky & Lasnik 1977: 434-5 (example numbers omitted)

Since this analysis, the surface filter proposed by Chomsky & Lasnik has usually been called the Doubly-Filled COMP Filter. Much work has been done on languages and varieties (both in time and in space) where the filter is and is not operative (that is, languages and varieties which do or do not permit doubly-filled COMPs: for an overview, see Radford 1988: 499ff).
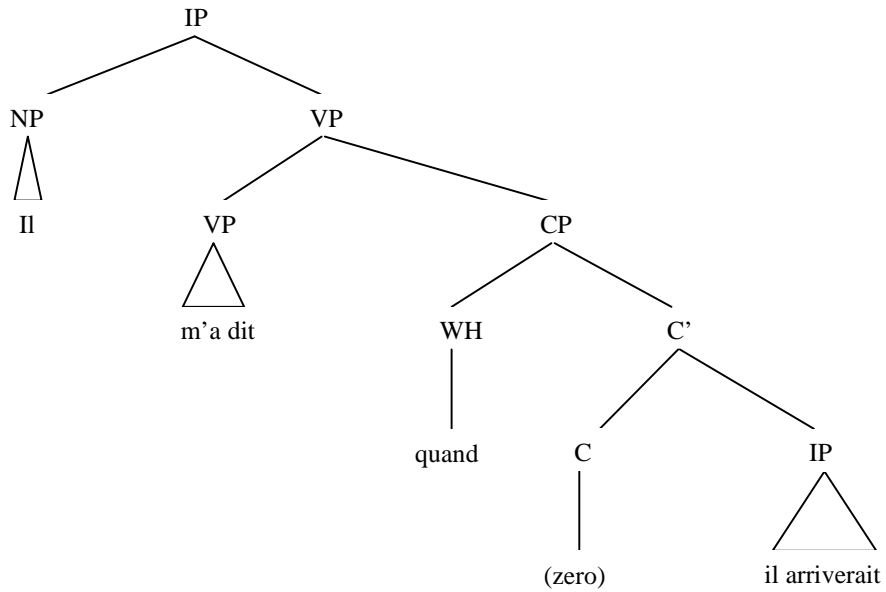
Figure 5-1
Structure of singly-filled COMP sentence, sentence (a) in this study
Il m'a dit quand il arriverait 'He told me when he would arrive.'
(*cf* Labelle 1993, Gledhill 2003: 44ff)
Detailed analysis only for constituents studied here
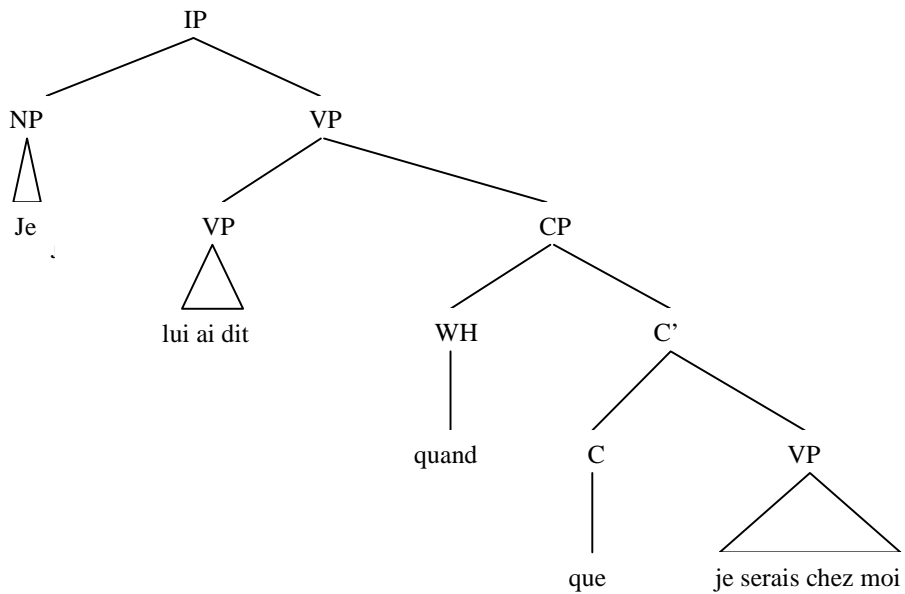
Figure 5-2
Structure of doubly-filled COMP sentence, sentence (f) in this study
Je lui ai dit quand que je serais chez moi 'I told him when that I would be at home.'
(*cf* Labelle 1993)
Detailed analysis only for constituents studied here

In work following Chomsky & Lasnik (1977), Chomsky proposed that 'WH MOVEMENT is an adjunction rule which adjoins *wh*-phrases to [the Complementiser node] C' (Radford 1988: 502; *cf* Chomsky 1980, 1993). This analysis would mean that the structure of two example sentences from this study's doubly-filled COMP materials was as shown in Figures 5-1 and 5-2. The WH labelling of the node where the *wh*-word lands is taken from Labelle (1993: 261). More recent work has made the functions of the *wh*-word and *que* in doubly-filled COMP constructions more explicit (Rowlett 2007: 195-6 for French, Benincà 2001 on varieties of Italian), by 'exploding' CP into various constituent nodes; however, the simpler analysis shown in Figures 5-1 and 5-2 will be retained here, because it shows enough detail for the current analysis.

5.3   Double complementisers in historical Gallo-Romance and contemporary French

5.3.1 Double complementisers in historical Gallo-Romance

It is at once easy and very difficult to give an account of the history of doubly-filled COMPs in Gallo-Romance. In a sense, this section of the study could be a very short one, because almost no complementisers are attested after the *wh*-words studied here until comparatively recently in the history of French. (Recall, though, that they have always

been grammatical in the free-relative case.) On the other hand, it is notoriously difficult to prove that something does not exist.

5.3.1.1 The Latin etyma of *comment*, *où*, *pourquoi*, *quand* and *qui*

It seems clear that all of the Latin etyma of the *wh*-words studied here (see Table 5-1)[34] were followed directly by VP when they were used as complementisers; that is, just like their descendants in standard French and other Romance languages, they were complementisers in their own right and did not need another particle to take on that role. This was true both for Classical Latin and for Vulgar and Late Latin, as any study of Latin syntax will confirm (*cf* for example Pinkster 1990, Woodcock 1959: §§230, 241ff).

French	Latin
comment	*<< quomodo*
où	*ubi*
pourquoi	*<< per + quid*
quand	*quando*
qui	*quis*

Table 5-1
Latin etyma of the French *wh*-words used in this doubly-filled COMP study

---

[34] The symbol << in this table is to be read 'ultimately derives from'. Latin words not preceded by this symbol are the direct ancestors of the French words listed. Fr. *comment* is derived from Lat. *quomodo* 'how' (> Old French *com(e)*) + the French adverbial suffix *–ment*, itself derived from the oblique case of Lat. *mens* 'mind, spirit'. Fr. *pourquoi* 'why' is derived from Lat. *per* 'by' (> Old French *por*, *pour*) + Lat. *quid* 'what' (which, when stressed, gave Old French *quoi*).

5.3.1.2   Complementisers in Old and Middle French

The situation stayed the same into the Old and Middle French periods. None of the Old

French examples of the *wh*-words used here listed by Jensen (1990: §§482, 493ff) is

followed by *que* before its clause. 'Absence of evidence is not evidence of absence', of

course, but, given the lack of examples of *wh-* + *que* in a wide range of sources on Old

and Middle French, we may conclude that the construction was marginal at best.

If *wh*-words + *que* were marginal to non-existent in earlier stages of French (and Gallo-

Romance more generally), though, we are left with the problem of how doubly-filled

COMPs entered any of the varieties (standard and non-standard) in which they are found

today. One desirable piece of the puzzle would be an account of the origins of *que* itself,

but, unfortunately, there is no consensus on this point. Étienne (1895: §§233-242) lists

ten uses for *que* in Old French, of which only some are complementisers, and it is

instructive to list some of them here, to demonstrate the wide range of uses for *que* in

French.

- Complementiser uses of *que* (those which can be roughly translated 'that' in

  English): *de ce que* 'from that which', > 'because'; *que* after a comparison; *que*

  after declarative verbs; *que* after verbs of fearing;

- *Que* in the sense 'as far as': *(autant) que je sache* 'as far as I know', a locution still

  present in Modern French;

- *Que* in the sense of *comme* 'how';

- *Que* in the sense of *sans que* 'without';

- *Que* in the sense of *depuis que* 'since', *lorsque* 'when';

- *Que* in the sense of *afin que*, *pour que* 'so that'.

If the uses of *que* in French are so many and varied, it is not surprising that there is no consensus about its origins in Latin. Étienne (1895) states that it is descended from 'Lat. *quod*, sometimes *quam*' (both of which can be translated 'that'); Ewert (1933: §469) states that it began as a descendant of Lat. *quod*, and that later 'there took place an extension and a weakening in the meaning of the conjunction, and confusion with *quia* ['because'], *quem* ['whom'], *quid* ['what']. Faced with such diversity of possible answers to the question, it is perhaps best to adopt the position of Ewert (1933: §469): 'The result is that in Old French *que* appears as a universal conjunction which often serves merely as an indication that what follows is subordinate to what precedes'.

The problem of finding early occurrences of doubly-filled COMPs in Gallo-Romance is worsened by an aspect mentioned briefly above: that, in French at least, they have always been non-standard. Since the writing we have from before universal literacy was (obviously) done only by comparatively well-educated people, we cannot therefore exclude the possibility that writers used doubly-filled COMPs in their most natural

(spoken) idiolect, but would never write one, because they were aware that the construction was a non-standard, non-literary one.

5.3.1.3 Complementisers in Norman

The fact that in earlier times the written register was likely to be a prestigious one is directly relevant to the problem of finding early attestations of doubly-filled COMPs in Norman, where they are certainly grammatical today. Just as writers before universal literacy were likely to be trying to write in a prestige variety more generally, so writers in Normandy before universal literacy were surely aware that, in the Gallo-Romance territory (before anything analogous to modern France existed), the prestige variety was not their native Norman one, but the Parisian variety. Even if they were Normans, therefore, they were likely to be writing in French. This, in any case, is the reasoning of Lepelley (1995: 9-10), in the introduction to a short collection of twelfth- to twentieth-century texts from Normandy. He concludes that we do not have any real examples of works overtly written in 'dialect' and explicitly not French from before the seventeenth century; he is talking about Norman dialect, but thinks that the conclusion is valid for any non-Parisian Gallo-Romance variety. One reason for collecting early examples of French written by Normans is, of course, that features of Norman could (and did) percolate into these early examples of French written by Normans, so we can use such texts, to a certain extent, to find out what the features of Norman at that time were. However, doubly-filled

COMPs are, no doubt, quite a salient feature, since they involve the addition of a word to a sentence; and, added to this, clauses of the type where a doubly-filled COMP could occur are comparatively rare. In the eighteen short texts of Lepelley (1995) which come from the seventeenth century or before, there are no *wh*-clauses of the relevant type, so there is no direct evidence about the status of single and doubly-filled COMPs for Normans at that time.

This means that we have no evidence as to the grammaticality of doubly-filled COMPs in Norman until the time when people started to write explicitly in Norman. Luckily, *Le Coup d'Œil Purin* (Rouen, 1773), one of the first texts to be written explicitly in a local variety, contains two doubly-filled COMPs in its first few lines:

'Ce Conseil, **où que** vous voilà nichés,

Où que chacun de vous fait la coquecidrouille …'[35]

(*Le Coup d'Œil Purin*, l.11-12)

After this, doubly-filled COMPs are very frequent in texts which are explicitly written in Norman.

---

[35] 'This Council, where (that) you've got a nice little place,
Where (that) every one of you is messing around …'

In modern times, texts are still being written in Norman, and *wh*-words in complementiser context are almost always in doubly-filled COMPs. Modern grammars of various varieties of Norman also state that doubly-filled COMPs are grammatical, though the whole range of *wh*-words investigated in this study is not always covered, depending on the grammar. In the following example sentences, doubly-filled COMPs are in **bold type**. Since Norman has no standardised orthography, the Cauchois and Cotentinais examples are written in the orthography adopted by the organisations producing the grammars; the reasons why particular orthographies were chosen, and the ways in which they were developed, are not always clear. Parsings, transcriptions and translations are my own, except where noted.

Cauchois (Upper Normandy, close to Rouen)

è: la kômeunn **oyou** **k'**il è: nè.

[ɛː la komɶ̃n ɔju kil ɛː nɛ]

is the *commune* **where** **that**-he is born

'It's the *commune* where he was born.'

(FDFRSM [1985]: 43, under 'Relative Pronouns')

Cotentinais (Lower Normandy)

O   véit byin **qui**   **qu'**ol   a   à   faire.

[o   vɛj   bi   t͡ʃi   kɔl   a   a   fɛʁ]

she   sees well **which-thing** **that**-she has   to do

'She can clearly see what she has to do.'

(UPNC 1995: 226, under 'Subordinate Relatives: direct objects')

No   veit paé reide   byin d'en **par iyoù**   **que** no-z-en   est.

[no   vɛj   pɑ   ʁɛd   bi   dã   paʁ   iju   k(ə) no z ã   ne]

One   sees not   straight well of-it **by**   **where**   **that** one with-it is

'We can't see very well where we are with this [figurative] situation.'[36]

---

[36] UPNC 1995: 231 notes four different spellings / pronunciations for lexemes which can mean 'where', but all are doubly-filled COMPs: *yoù que*, *iyoù que*, *où que*, *là que*.

O   demaundit **quaund que** ch'était qu'i   prêcherait à lyi.

[o   d(ə)ma˥di ka˥   k(ə) ʃete   ki   pʁɛʃʁe(t) a li]

She   asked   **when**   **that** it-was   that-he   would-talk to him/her

'She asked when he would talk to him/her.'

(UPNC 1995: 145-6, under 'Interrogative adverbs')

Channel Islands (Jèrriais and Sercquiais)[37]

In Jèrriais and Sercquiais, the doubly-filled COMP seems not to be obligatory in all contexts. Specifically, according to Liddicoat (1994: 252-3), it is permissible but not obligatory 'when followed by a clause', so that both of the following are grammatical:

[l   tã   **juk**   ʒ   sɔ̃m / sum][38]

the   time   **where-that**   we   are

'Nowadays'

with doubly-filled COMP, but

---

[37] Liddicoat's grammar covers only Jèrriais and Sercquiais, spoken on Jersey and Sark respectively. These two islands are part of the same Channel Islands Norman dialect area, one of three (the others are Guernsey and Alderney) (Liddicoat 1994: 1).
[38] Liddicoat does not use orthography in his grammar, but gives all Norman forms directly in IPA. Where there are alternative transcriptions for a single word, the first alternative is Jèrriais and the second Sercquiais.

[la   mɛːðõ / mwɛːzõ   ʤ   ju   ty / tʏ   vɛ̃]

the   house   from where   you   came

'the house you came from'

with singly-filled COMP; and the doubly-filled COMP does not occur when the pronoun

following [ju] 'where' also begins with [u], since the two adjacent identical short vowels

become one long vowel:

[la   vil   ʤ   juː   vne / vnɛ]

the   town from where-you(pl) come

'the town you come from'

[ʤə   n   spi   pa   juːl   ɛt aʃtœ]

I   NEG know not   where-she is at-this-time

'I don't know where she is at the moment'

(Liddicoat 1994: 252; Liddicoat's transcriptions)

A final nuance in Channel Islands Norman is that, according to Liddicoat's grammar,

there is the following distribution of complementisers among the interrogative pronouns

(often written *qui*, < Lat. *quis*):

	Animate		Inanimate	
	Jèrriais	**Sercquiais**	**Jèrriais**	**Sercquiais**
Subject	tʃi	kji	tʃeːk	kjeːk
Direct object	tʃi	kji	tʃik	kjik
Complement of preposition	tʃik	kjik	tʃi	kji

Table 5-2
Relative pronouns in Jèrriais and Sercquiais
(adapted from Liddicoat 1994: 252)

The element which seems to be a doubly-filled COMP (the final [-k]) is present only when the 'animate' pronouns (Liddicoat glosses them as '[referring to a] person') are complements to a preposition, and when the 'inanimate' pronouns (Liddicoat: 'thing') are in subject or direct object position.

5.3.2 Double complementisers in contemporary French and RFN

From the foregoing sketch of the grammar of (some) complementisers in Norman, it seems reasonable to suggest that one reason why a speaker of RFN might use doubly-filled COMPs would be because of the Norman substrate in Normandy. This leaves unexplained, though, where the attested doubly-filled COMPs in the popular French of other parts of France (and other parts of the French-speaking world: *cf* Starets 2002 and references therein) come from.

The search for doubly-filled COMPs in the standard texts on standard French is met with a deafening silence. The most widely-known grammar for French, *Le Bon Usage* (Goosse 1993), does not mention any of the doubly-filled COMP constructions considered here,

neither in the section on relative pronouns (for *qui*) nor in the long sections on adverb phrases (for *comment*, *où*, *pourquoi*, *quand*), where all the conceivable uses of all these words in standard French are covered in detail; nor are doubly-filled COMPs mentioned by other French-language grammars of French (Wagner & Pinchon 1962, Académie Française 1933). As we saw earlier, however, doubly-filled COMPs are analysed in some texts on the syntax of Modern French; they are also present in at least one early French study of non-standard French (Frei 1929: 213 mentions *quand que*), and, finally, Judge & Healey (1983: 423) also mention them in their English-language grammar of French. Given that a large majority of French prepositional phrases (often referred to in grammars as *circonstancielles*) end in *que*, and that *que* is the French subordinator *par excellence*, as previously noted, it seems reasonable to suppose that the doubly-filled COMPs analysed in this study had their origin by analogy with the vast majority of other phrases whose syntactic functions they can share (in the right context). This reasoning is valid whether we are considering why doubly-filled COMPs are present in modern non-standard French, or why they are grammatical in (for example) Norman or other varieties.

5.4 Double complementisers: the data

In this study, the variable (que) is analysed entirely in terms of speakers' evaluation, *i.e.* in terms of their receptive rather than productive competence. The data come entirely from Formal Methods (see below for the methodology used). Early attempts to code

occurrences of complementisers in Interview speech showed that they were not frequent enough to provide a data-set from which reliable conclusions could be drawn. Also, the complementisers which did occur in Interview speech did not reliably cover the whole range of the ones I wished to test: the most commonly-occurring complementisers in Interview speech were *quand* and *où*, with *pourquoi* (for example) occurring very rarely. Finally, of the restricted range of complementisers that did occur, for some sub-groups of the population (rural and / or older) many tokens were in the context *où que c'est que*, literally 'where that it-is that', which seems to be a set phrase even for some people who do not otherwise use many doubly-filled COMPs. A particularly extreme example is

'[la   maison] où   que   c'est qu'est   Mme Toquet'
 the house   where   that   it-is that-is Mme Toquet'
'The house where Mme Toquet lives'

(this comes from LAB09 (M, 79yrs, LWC), a speaker who in fact sees no difference in acceptability between single and doubly-filled COMPs); in Standard French, this might be rendered

la   maison où   est   Mme Toquet
the   house   where   is   Mme Toquet

(if another verb such as *habiter* was not used for 'live').

5.4.1 Methodology

Interviewees were therefore asked to consider ten sentences of French, translated below (translations are idiomatic except where they indicate the presence of a doubly-filled COMP). Doubly-filled COMP sentences are in **bold type** here.

a   Il m'a dit quand il arriverait.

         'He told me when he would arrive.'

b   Je lui ai demandé où il était.

         'I asked him where he was.'

c   On me demandait pourquoi que j'avais fait ça.

         'People were asking me why that I had done that.'

d   Il voulait savoir où qu'il pouvait acheter un journal.

         'He wanted to know where that he could buy a newspaper.'

e   Je me suis demandé qui était à la porte.

         'I wondered who was at the door.'

f   Je lui ai dit quand que je serais chez moi.

         'I told him when that I would be home.'

g   Il m'a dit comment qu'il fallait faire.

         'He told me how that you had to do (it).'

         (more idiomatically, 'He told me what you had to do.')

h   On se demandait qui que ça pouvait être.

         'We were wondering who that it could be.'

i   Je ne sais pas pourquoi je l'ai fait.

         'I don't know why I did it.'

j   Veux-tu voir comment je l'ai fait?

        'Do you want to see how I did it?'

These sentences include the *wh*-words *quand*, *où*, *pourquoi*, *qui* and *comment*, each in its

single form and in the doubly-filled COMP form *wh-* + *que* 'that'. The sentences were

randomised (using a random-number generator) so that they appeared in the order above.

They were presented to interviewees on a sheet with an acceptability grid (without

translations into English, of course; see the Appendix for a full copy of the Formal

Methods used in this study). Interviewees were asked to do two things, in the following

order:

1.   Give 'magnitude estimation' acceptability judgements (Bard, Robertson & Sorace

        1996) by ticking a box to rate each of the sentences according to how good French

        they were, on a scale from 1 *très mauvais français* 'very bad French' to 5 *très bon*

        français 'very good French'.

2.   Cover their acceptability judgements, and indicate on the sheet whether they

        themselves would say the sentence as it was written on the page, when they were

        speaking French. They could do this in whichever way they liked, as long as it was

        clear: examples included writing *O* for *Oui* 'yes' and *N* for *Non* 'no', using tick-

        marks and crosses, or circling sentences they would use.

It was necessary to specify that interviewees should give usage judgements about when they were speaking French, especially in La Bonneville, because many interviewees said they were speakers of Norman, and doubly-filled COMPs are grammatical in Norman but not in French.

After the pilot period of the study, I also asked interviewees to read the sentences out loud as they judged their acceptability; this allowed me to check that they had registered the presence of the *que* in the non-standard sentences, since I found that otherwise some interviewees read those sentences without the *que*. Such behaviour is not unexpected, since taking the *que* out of the non-standard sentences in this task converts them into sentences of standard French with no other modification being necessary. Kolers (1970) reports an experiment in which English-French bilinguals were asked to read aloud a passage where some syntactic constituents were in French and others in English; if we call French 'Language 1' and English 'Language 2', one result from this experiment is that, just after reading a constituent in Language 1, such readers will sometimes modify the word-order of constituents in Language 2 so that it conforms to the unmarked Language 1 word-order. They can perform the same rearrangement on constituents in Language 1 just after they have been reading a constituent in Language 2, so the result does not reflect the language in which any particular bilingual is dominant; it simply reflects a perseverance effect of grammatical structures from one language as the reader

processes text in the other. It is not difficult to see how this finding could be extended to speakers who live in a bidialectal area such as Normandy, where (for these purposes) Dialect 1 has singly-filled COMPs and Dialect 2 doubly-filled COMPs. If the doubled complementiser is not necessary for comprehension of the sentence, the results of Kolers' experiment imply that readers may not read it. In his words:

> 'the skilled reader of a language is not operating in terms of a passive but faithful mouthing of the text before him. He is not trying to translate graphemes into phonemes, and he is not responding especially to the morphemic structure of the words. *He is not even able to see all of the words on the page* […] Instead, he is treating words as symbols and is operating on them in terms of their meanings and their relations to other symbols.'

> (Kolers 1970: 112; emphasis mine)

The assertion that the reader 'is not even able to see all of the words on the page' would neatly explain why he or she may not read all the words if the sentence makes sense without one of them. It is itself explained by results from eye-tracking experiments on word fixation (that is, how many words at a time the eye 'looks separately at' when reading): '[under] usual circumstances, first language readers do not fixate every word; instead, 1.2 words per fixation have been found to be an average for readers of English' (Schramm 2008: 232). Finally, I also note that Rayner 1998 reports that readers read more slowly when reading aloud than when reading silently; the extra time spent on each sentence when reading aloud is likely to have played a role.

5.4.2 Analysis

In order to analyse the two sets of results, informants' Use judgements were converted into a binomial ranking (0 for sentences they would not use and 1 for sentences they would use). For each cross-tabulation, the mean of responses from informants in each sub-group to each sentence was then taken, to produce rankings like Table 5-3. From Table 5-3 we can read, for example, that the mean rating given to sentence (f) by rural males of the >69yrs age-group was 3 (on a scale of 1 to 5); the mean Use rating for the same sentence was 0.5, meaning that half of the group said they could use that sentence (giving it a ranking of 1) and half said they could not (giving it a ranking of 0). (In this case, there were four members of the group; that information cannot be read from Table 5-3, but it gives an idea of the size of some of the individual cells once cross-tabulations were carried out.)

M, Rural, >69, Rate		M, Rural, >69, Use	
Rate e	5	Use a	1
Rate b	4.75	Use b	1
Rate i	4.75	Use e	1
Rate a	4.5	Use i	1
Rate j	4.5	Use j	1
Rate f	**3**	**`Use c**	**0.5**
Rate g	**3**	**Use d**	**0.5**
Rate c	**2.75**	**Use f**	**0.5**
Rate d	**2.5**	**Use g**	**0.5**
Rate h	**2.25**	**Use h**	**0.25**

Table 5-3
Sample Acceptability and Use ratings for doubly-filled COMP test
sentences: Rural males of the >69yrs age-group
Rankings for sentences containing doubly-filled COMPs are in **bold type**.

The correlation between the Acceptability rating and the Use rating was measured using the Pearson product-moment coefficient r ; for correlation between two rankings, Spearman's rank correlation coefficient is often used, but it cannot be used where tied rankings exist (Myers & Well 2003: 508). In most of the cross-tabulations carried out, many of the sub-groups were of a similar size to the one exemplified in Table 5-3, which is small (4 members); such small group size lends itself to tied rankings. It can be seen that both rankings in this table contain tied ranks, and this situation was of course replicated in other groups, so Spearman's rank correlation coefficient was unsuitable. Pearson's product-moment coefficients are distributed as the t distribution (as in Student's t-test), so t-values for each coefficient were taken, and probabilities for those t-values were derived (Healey 2002: 384ff). When probabilities associated with correlations are measured, the null hypothesis is that $r = 0$, *i.e.* there is no relationship between the two rankings compared. A low probability therefore indicates that it is very *unlikely* that there is no relationship between the rankings, that is, that it is very likely that they are highly correlated. This is possibly counterintuitive in the usual world of statistics on linguistic variation, where a low probability (typically $p \leq 0.05$) indicates a significant *difference* between the data-sets compared: in the case of Pearson's r and other measures of correlation, a low probability indicates significant *similarity* between the data-sets.

5.4.2.1 Acceptability ratings and Use ratings across all ten test sentences

The major findings of this part of my study are the following.

1. For the vast majority of sub-groups, their ranking of the sentences according to how good the sentences were in French (the Acceptability rating) was not significantly different from their ranking of the sentences according to whether they would use them or not (the Use rating).

2. The vast majority of speakers gave all the singly-filled COMP sentences a higher Acceptability rating than any of the doubly-filled COMP sentences. Broadly speaking, this was true across all age-groups, all socioeconomic class groups, both sexes and both sites.

3. Though the vast majority of speakers rated all the singly-filled COMP sentences as more acceptable than any of the doubly-filled COMP sentences, for most sub-groups the rural speakers gave the singly-filled COMP sentences a higher Acceptability rating than the comparable urban speakers did. Despite this difference, comparable sub-groups of rural and urban speakers reported that they would use the sentences.

Regarding the first point, the probabilities derived here actually tell us little, because most of the correlations are $r \geq 0.9$ (very high). The reason for these high correlation coefficients and correspondingly low probabilities may be that the rankings compared

were short (10 items) compared to the rankings of hundreds of items with which the correlation test can deal. We can conclude from this that speakers in both parts of Normandy, of both sexes, and in all age-groups and socioeconomic classes are highly conscious of the stigmatised nature of the doubly-filled COMP construction, since the vast majority of them rated all the non-standard sentences as worse than any of the standard ones, and their Use ratings were consistent with this.

Regarding point 2 above, since the presence or absence of doubly-filled COMPs is an explicitly grammatical variable, we might expect it to vary such that people who had had less formal education – less opportunity to be taught formal grammar – would give the stigmatised variants a higher Acceptability rating and use them more. However, this does not seem to hold, at least from interviewees' self-reports of use. Stereotypically, we might expect rural and / or older and / or working-class people (particularly women) to have had less education than urban and / or younger and / or middle-class people, but the aggregated data from this study do not show that this possible lack of education affects judgements on this particular point of grammar. In this study, level of education is one of the two components of socioeconomic class (the other being Occupation; see Ch2 above). Certainly, some sub-groups did rank one or more of the doubly-filled COMP sentences above one or more of the singly-filled COMP sentences when rating their acceptability – see Table 5-4 – and the sub-groups who did so were often rural and / or older and / or in

the working class, but more sub-groups who fit one or more of these criteria gave typical Acceptability ratings, with all the singly-filled COMP sentences above all the doubly-filled COMP ones. In fact, only three of the 92 informants (56 urban and 36 rural) who participated in this part of the study gave ratings of 5 'very good French' to all ten sentences: all these three informants were rural and over 69 years old; one UWC woman, one LWC woman and one LWC man. All the other informants had some difference between their judgements on the single-complementiser sentences and their judgements on the doubly-filled COMP sentences. The informants who made some difference between the standard and non-standard sentences included three rural men and three rural women in the >69yrs age-group, most of whom were also in one of the working-class groups.

Point 3 above – the fact that rural speakers gave the non-standard sentences a higher

Rural, F, UWC	
Rate b	4.75
Rate e	4.75
Rate i	4.75
Rate j	4
Rate f	**3.75**
Rate d	**3.25**
Rate g	**3.25**
Rate a	3
Rate c	**2.25**
Rate h	**2.25**

Table 5-4
Example of a sub-group where one standard (singly-filled COMP) sentence has been rated less acceptable than several non-standard (doubly-filled COMP) sentences: Rural, F, UWC
Non-standard sentences in **bold type**.

Acceptability rating than the comparable urban speakers did – is demonstrated most

clearly in Figure 5-3 and Table 5-5, an overall summary of the difference between the

Urban and Rural responses, not further subdivided.
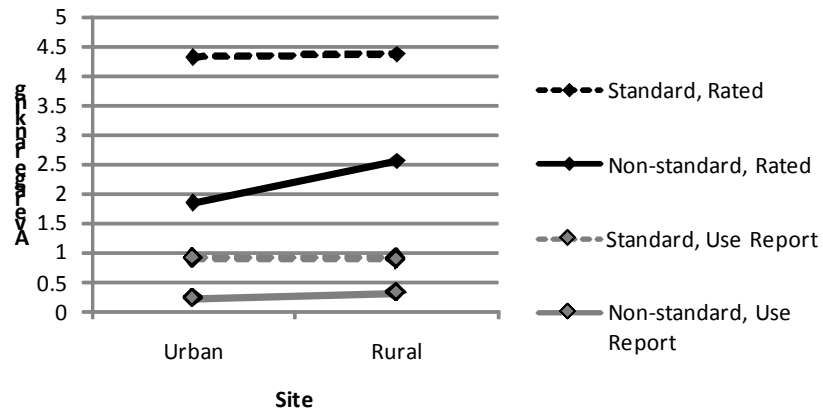
Figure 5-3
Overall acceptability and use of sentences in the doubly-filled COMP task
All urban speakers *vs* all rural speakers

	Urban	**Rural**
Acceptability rating for standard sentences, mean	4.3	4.4
Acceptability rating for non-standard sentences, mean	1.9	2.5
Use self-report for standard sentences, mean	0.9	0.9
Use self-report for non-standard sentences, mean	0.2	0.3

Table 5-5
Mean acceptability ratings (out of a possible 5) and use self-reports
(out of a possible 1) for Urban and Rural sites

It should be noted here that, although the mean Use self-report hardly differs between Urban and Rural speakers, the actual proportions of the non-standard sentences which could be used in each community are in fact significantly different: 23% of the sentences could be used in the Urban community and 32% could be used in the Rural community. This means that each informant in this part of the study made five judgements as to whether they could use a non-standard sentence proposed to them (one each containing *où que*, *quand que*, *comment que*, *qui que* and *pourquoi que*); of the total number of those judgements (= the number of informants x 5 sentences), the Urban community answered 'Yes, I could use this sentence' 23% of the time, and the Rural one 32% of the time. This difference is significant at $p = 0.04$ ($\chi^2 = 4.26$).

The result that Rural speakers find the non-standard sentences more acceptable than Urban speakers is supported by cross-tabulations of the data where the sub-groups thus created remain fairly large, though as sub-groups get smaller the rural community's acceptability rating for the non-standard sentences is less reliably higher than that of the urban community. This is likely to be due to the extremely small size of some of the sub-groups when the communities are divided by two (or more) social factors: in several cases, N=1. For example, there is only one Rural female in the <20yrs age-group, and only one Urban LMC speaker in the >69 age-group. In the extreme case, cells are not filled: there are no Rural UMC speakers in the >69 age-group, and no Rural female UMC

speakers at all. This is simply a reflection of the composition of the communities at each site (see Ch2, above, for further discussion). The social factors as they are currently configured have been retained, since they allow for comparison between the two sites, and observation of the differences made to language by differences in social configuration. The discussion to follow, then, will mostly be confined to cross-tabulations using no more than site plus one other social variable. It will be seen that the typical configuration of the graphs of these cross-tabulations on site plus one other variable is that Urban and Rural acceptability ratings for the standard sentences coincide closely, their trends often overlying one another; similarly, the Urban and Rural Use ratings for the standard sentences often overlie one another, and the Urban and Rural Use ratings for the non-standard sentences often overlie one another. In these graphs, however, the relationship of the remaining pair – Urban and Rural acceptability ratings for the non-standard sentences – is always that, at any given point in the graph, the Rural trend is above the Urban trend, indicating that the Rural sub-group finds these sentences more acceptable on average than the Urban sub-group does.

A cross-tabulation of the data by site and age-group (Figure 5-4, Table 5-6) shows clearly
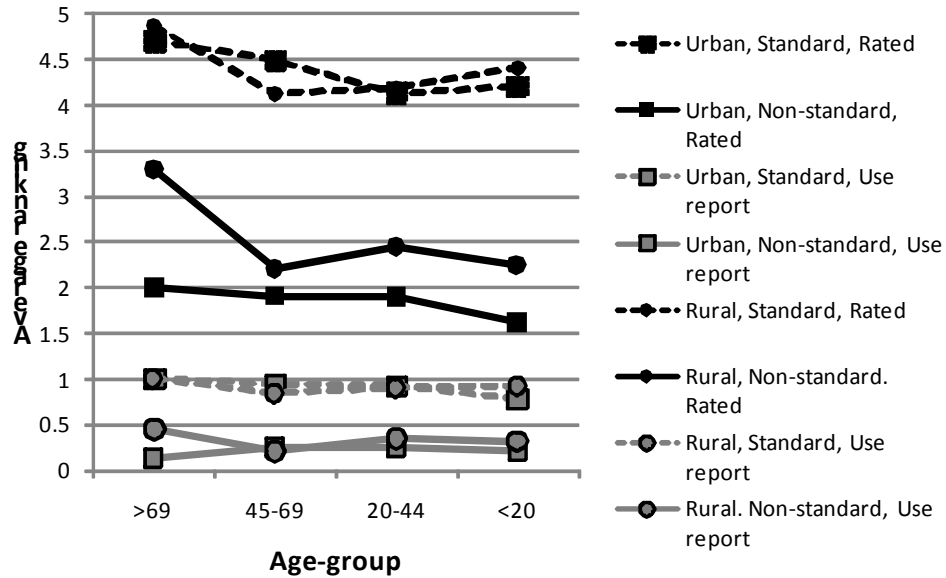
Figure 5-4
Mean acceptability ratings and use self-reports, Urban and Rural, by age-group

	Urban				**Rural**			
	>69	**45-69**	**20-44**	**<20**	**>69**	**45-69**	**20-44**	**<20**
Acceptability, standard	4.7	4.5	4.1	4.2	4.9	4.1	4.2	4.4
Acceptability, non-standard	**2.0**	**1.9**	**1.9**	**1.6**	**3.3**	**2.2**	**2.4**	**2.2**
Use, standard	1.0	0.9	0.9	0.8	1.0	0.8	0.9	0.9
Use, non-standard	0.1	0.3	0.3	0.2	0.5	0.2	0.4	0.3

Table 5-6
Mean acceptability ratings and use self-reports, by age-group
Acceptability ratings for non-standard sentences in **bold type**

that acceptability ratings for the doubly-filled COMP construction in the Rural

community decline particularly after the >69 age-group, though after that the pattern in

age is flatter; in the Urban community, the pattern of acceptability judgements for

doubly-filled COMPs is flat throughout the age-distribution, and they are less acceptable

in all age-groups than they are in the Rural community. In fact, the Urban and Rural communities are only significantly different here in the >69yrs age-group ($p < 0.01$, $\chi^2 =$ 7.95). The contrast of the Urban and Rural trends for acceptability of the non-standard sentences stands in stark contrast to all the other trends in Figure 5-4: the Urban and Rural acceptability ratings for the standard sentences are not notably different from one another; the Urban and Rural use self-reports for the standard sentences are not notably different from one another; and nor are the two sites' use self-reports for the non-standard sentences. This, in particular, is interesting; it indicates that members of the Rural community are conscious of what they 'ought to think' about the non-standard sentences, and they act on it to the extent that they report not using such sentences more than the Urban community does. Unlike in the Urban community, however, the Rural community's acceptability ratings for the non-standard sentences are not tightly linked to their use of the same types of sentence.

The drop in the acceptability of the non-standard constructions after the oldest Rural age-group is a nice reflection of the fact that informants younger than (approximately) 60 years old at the time of their interview had more compulsory education than did informants older than that: for French people born after 1943, education was compulsory until age 16 (Ministère de l'Éducation Nationale 2006), whereas the minimum school-leaving age before that had been 14, or previously even younger, depending on when the

informant was born. It is also probably true that, the older an informant was, the more

contact with Norman they were likely to have had during their childhood, so the more

likely they would be to think that doubly-filled COMP was grammatical.

When the data are cross-tabulated by site and sex (Figure 5-5 and Table 5-7), it is
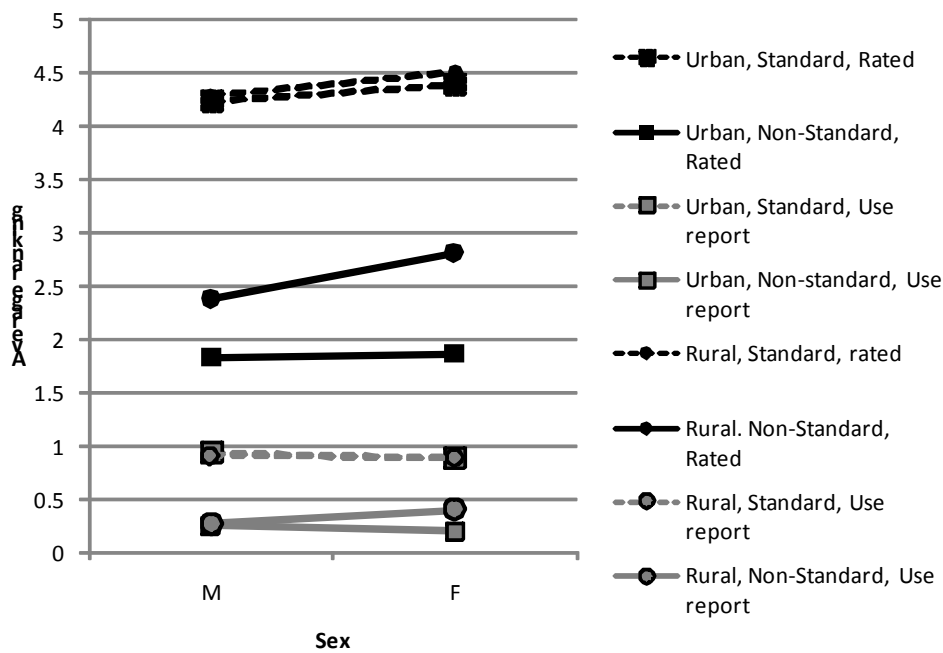
Figure 5-5
Mean acceptability ratings and use self-reports, Urban and Rural, by sex

	Urban		Rural	
	M	**F**	**M**	**F**
Acceptability, standard	4.2	4.4	4.3	4.5
Acceptability, non-standard	**1.8**	**1.9**	**2.4**	**2.8**
Use, standard	0.9	0.9	0.9	0.9
Use, non-standard	0.3	0.2	0.3	0.4

Table 5-7
Mean acceptability ratings and use self-reports, by sex
Acceptability ratings for non-standard sentences in **bold type**

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likewise clear that the rural community is more accepting of the non-standard forms than the urban community, and that, in the rural community, women are more accepting of the non-standard forms than men (there is no difference between the sexes in the urban community). Women are usually more accepting of innovative forms only in the case of change from above, though (Labov 2001: 274), and in that light this is a puzzling finding, since sentences containing doubly-filled COMPs are certainly not overtly prescribed; as we have seen, they are rather the unprestigious variant in this variable. We can perhaps explain the rural women's better acceptability rating for doubly-filled COMP sentences by appealing to the notion of covert prestige; they are proud of their rural home and origins and so do not think of this variant as 'bad'. In accordance with this, the Urban and Rural females' Use ratings for the non-standard variants are actually significantly different, at $p < 0.01$ ($\chi^2 = 8.33$).

Figure 5-6 and Table 5-8, though, provide more context for the difficult-to-explain finding that rural women rate unprestigious doubly-filled COMPs more highly than do rural men. Here, we see that when the women are taken on their own and cross-tabulated by age-group, as rural women get younger they find the non-standard sentences less acceptable (though they still always find them more acceptable than the urban women do). This cross-tabulation makes it clear that the rural women in the oldest age-group are probably chiefly responsible for the greater acceptance of the non-standard sentences by

women as a whole, which is understandable given the composition of the sample in this
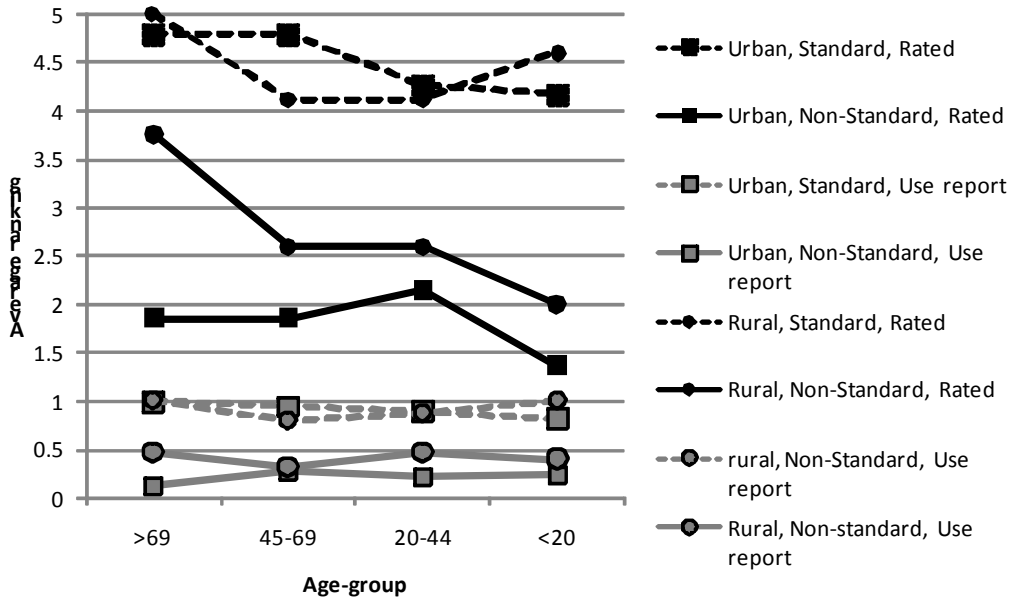
Figure 5-6
Mean acceptability ratings and use self-reports, urban and rural, by age-group: Female only
(*cf* Figure 5-4, for both sexes)

	Urban, Female only				Rural, Female only			
	>69	45-69	20-44	<20	>69	45-69	20-44	<20
N →	3	9	10	6	5	5	3	1
Acceptability, standard	4.8	4.8	4.3	4.2	5	4.1	4.1	4.6
Acceptability, non-standard	**1.9**	**1.9**	**2.2**	**1.4**	**3.8**	**2.6**	**2.6**	**2**
Use, standard	1.0	1.0	0.9	0.8	1.0	0.8	0.9	1.0
Use, non-standard	0.1	0.3	0.2	0.2	0.5	0.3	0.5	0.4

Table 5-8
Mean acceptability ratings and use self-reports, by age-group, Female only
Acceptability ratings for non-standard sentences in **bold type**

particular respect. The numbers in each age-group are included in Table 5-8 for

comparison; not only are there five times as many women in the Rural >69yrs age-group

(N=5) as in the Rural <20yrs age-group (N=1), but also the women in the oldest age-

group include two of the three informants who rated all the sentences (standard and non-standard) as 5 ('very good French').

Finally in this section, there is a clear trend when the doubly-filled COMP data are cross-tabulated by SEC (Figure 5-7 and Table 5-9). This time, it is a little more readily explicable: we see that the mean rating of the non-standard sentences increases as SEC decreases, and this is true in both the Urban community and the Rural community. Once again the Rural community always rates the non-standard sentences higher than the Urban community does: the difference varies between 0.5 point and 1 point, depending on the socioeconomic class. This trend is in accordance with the stigmatised status of the non-standard variant of this variable: we would expect acceptance of the variable to increase as SEC decreased. As far as Use ratings for the non-standard sentences are concerned, the Urban and Rural communities are only significantly different in the LWC ($p < 0.05$, $\chi^2 = 5.46$).

 It should also be noted that the overall SEC trend, as shown in Figure 5-7 and Table 5-9, very closely mirrors the trend found in males alone, while the figures for females alone show much less of a trend. This is probably mostly due to the incomplete nature of the Female sample in SEC terms: there are no UMC rural women in the whole sample analysed in this study, and none of the LWC urban women who were interviewed completed this part of the study.
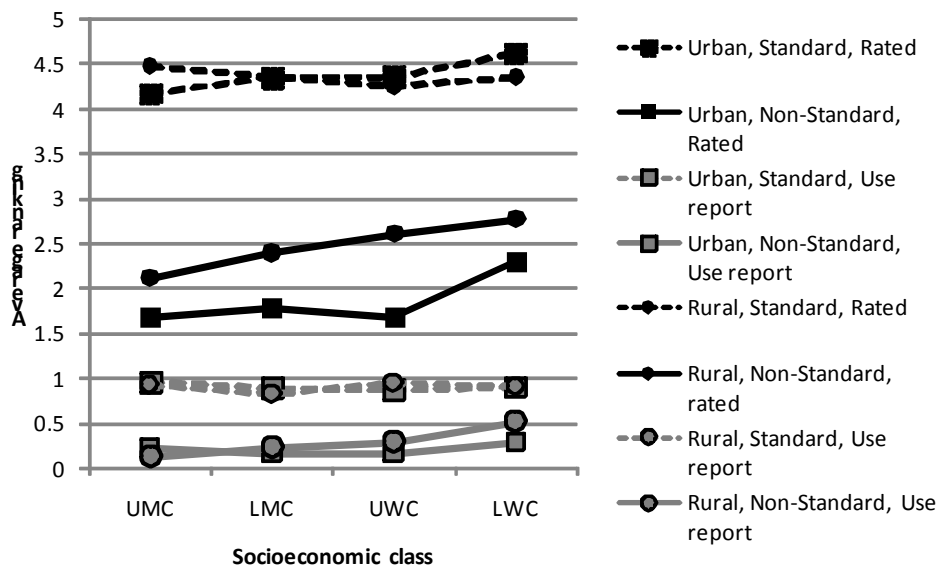
Figure 5-7

Mean acceptability ratings and use self-reports, urban and rural, by socioeconomic class

	Urban				Rural			
	UMC	LMC	UWC	LWC	UMC	LMC	UWC	LWC
Acceptability, standard	4.2	4.3	4.4	4.6	4.5	4.4	4.3	4.4
Acceptability, non-standard	**1.7**	**1.8**	**1.7**	**2.3**	**2.1**	**2.4**	**2.6**	**2.8**
Use, standard	1.0	0.9	0.9	0.9	0.9	0.8	0.9	0.9
Use, non-standard	0.2	0.2	0.2	0.3	0.1	0.2	0.3	0.5

Table 5-9

Mean acceptability ratings and use self-reports, by socioeconomic class
Acceptability ratings for non-standard sentences in **bold type**

Based on the evidence presented here, I provisionally conclude that (que) is now a stable

variable in RFN. In acceptability ratings it has a flat distribution in age for the three

youngest age-groups (Figure 5-2); and, in considering this aspect of the problem, it is

important to exclude the >69yrs age-group, since members of that group are likely to

have had less formal education than people younger than that. For such a salient

grammatical variable, one on which it is possible to receive explicit instruction, the amount of education that a speaker has had should weigh heavily in judgements and calculations as to its status. The importance of formal education in determining a speaker's attitude to this variable is also underlined by the uniformly low Use ratings given to the non-standard sentences here: no matter how many years of education a speaker has had, all speakers have had at least five or six years (the oldest speakers entered school at six years old and were eligible to leave at eleven) and it seems that they always report low use of the non-standard variants. Finally, the acceptability ratings for (que) are monotonically distributed in socioeconomic class, another feature of stable sociolinguistic variables (Labov 2001: 74ff).

5.4.2.2 Acceptability ratings and Use ratings within the five non-standard sentences

A note should also be made about the comparative acceptability of the non-standard sentences containing the five *wh*-words tested here. Only a loose result can be sketched out, but it will at least complement Sankoff's (1973) results on comparative Use rates for different *wh*-words with *que*.

Sankoff (1973) presents results for the use of *quand*, *où*, *comment*, *pourquoi*, *combien* 'how much' and *comme* 'how', with and without *que*, in interview speech: four of the *wh*-words analysed in this study and two others. She finds that *où*, *comment*, *pourquoi*

and *combien* are followed by *que* approximately 40% of the time, while *quand* is

followed by *que* approximately 30% of the time (she does not give separate rates for the

wh-words grouped at 40% in her results). The mean rankings in this study, dividing the

data only by site and not using any other social variable, are given in Table 5-10.

Urban				Rural			
Acceptability (/5)		Use (/1)		Acceptability (/5)		Use (/1)	
quand	2.23	*comment*	0.35	*comment*	3.19	*comment*	0.53
comment	1.91	*pourquoi*	0.27	*quand*	2.72	*quand*	0.33
où	1.88	*où*	0.27	*où*	2.53	*pourquoi*	0.30
pourquoi	1.66	*quand*	0.18	*qui*	2.17	*où*	0.24
qui	1.57	*qui*	0.06	*pourquoi*	2.11	*qui*	0.18

Table 5-10
Mean acceptability and use ratings for non-standard sentences (*wh*-words followed by *que*)
Ratings given to two decimal places in order to distinguish rankings fully

It seems clear from Table 5-10 that, in both sites, the most favoured *wh*-word for a

doubly-filled COMP construction is *comment*. It appears in first place for both

acceptability and use in the Rural community; in the Urban community, it appears in first

place for use and in second place for acceptability. In the Use ratings, this agrees with the

findings of Sankoff in Montreal in 1973: we can also interpret the mean Use ratings in

Table 5-10 as meaning that 35% of Urban interviewees and 53% of Rural interviewees

report that they would use a sentence containing *comment que* (*cf* Sankoff's probability

of 0.4, or 40%, in interview speech). After the top place in the rankings, however, the

rankings from this study differ from Sankoff's. In three of the four rankings here (all

except Urban Use), the other *wh*-word in the top two is *quand*. The Rural Use ranking in

Table 5-10 does show *quand que* at 33% (*cf* Sankoff's probability of 0.3, or 30%), but the Urban Use ranking shows it at 18% (fourth place), much less favoured. It is not possible to compare the Acceptability ratings here directly with Sankoff's use probabilities. In this study, the bottom three of most of the rankings are less strictly-ordered, but it is notable that the least favoured *wh*-word for a doubly-filled COMP construction in three of the four is *qui*.

5.5 Conclusion

We can conclude, then, that on the basis of the evidence presented here, (que) is a stable variable in the Regional French of Normandy. Its acceptability ratings are monotonically distributed in socioeconomic class, and show a flat distribution in the three youngest age-groups (the three age-groups in the study who have all had the same amount of obligatory education). The use of doubly-filled COMPs is clearly stigmatised in Standard French, but it is present here, albeit at a low level. It did appear occasionally in spontaneous speech, and, while Use ratings are low in both rural and urban Normandy, doubly-filled COMPs are always more acceptable in the rural site than in the urban. As far as use and acceptability across time and space are concerned, it is very interesting that both this study and Sankoff (1973) in Montreal show *comment que* to be (among) the most-used (and most-acceptable) doubly-filled COMP constructions, though in Sankoff (1973)'s results it is as much used as some other doubly-filled COMP constructions (*où que*,

pourquoi que) which are not as favoured in this study's Normandy results. It is tempting to try to relate this fact to the ultimate origin of Quebec French in Western France (Normandy was among the regions which contributed the most colonisers in the early days of colonisation: see *eg* Charbonneau & Guillemette 1994, Université Laval 2005). Before drawing such a conclusion, however, we would need more systematic data about use and acceptability of this construction on both sides of the Atlantic.

Chapter 6 Perceptual dialectology and language attitudes

6.0   Organisation of the chapter

The following chapter presents the results of my study of the accent maps drawn by informants, and of the language-attitude questions I asked them. It then compares individual informants' responses to the language-attitude questions with their results from the chapters on phonological variables (Chapter 3 on (a) and Chapter 4 on (e)), in order to investigate whether or not a given individual's attitude towards his or her local vernacular is at all connected to his or her actual phonology. The purpose of this comparison is not to define the 'Normandy variants' in this study (non-merged /a/ and /ɑ/, merged /ɛ/ and /e/) as markers of belonging to a Normandy speech-community, since non-merged /a/ and /ɑ/

and merged /ɛ/ and /e/ can both be found in other regional accents of European French. Rather, the chapter simply aims to investigate language attitudes as another possible way of defining a speech-community, in the spirit of Preston 2008.

6.1 Methodology

During the Formal Methods part of the interview, after the unguided portion, informants were presented with 'blank' maps of France and Normandy[39] (Figures 6-1 and 6-2) and asked to draw lines around areas where 'people speak differently' ('les régions où on parle differemment' or 'là où on parle differemment'). If informants were confused about this way of putting the question, they were asked to draw lines around areas where there was an identifiable 'accent' in the French. This methodology is essentially the one used by Kuiper (1999) for his study of perceptions of accent boundaries throughout France, and we will see that it produced similar sorts of results, although, for this study, only maps of Normandy and not maps of France will be analysed.

The notion of 'accent' was deliberately left vague in instructions to informants, in order to gain access to the widest possible range of perceived language differences (informants' responses often referred to phonology – specific sounds – but could also include lexical

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[39] The 'Normandy' maps presented were in fact maps of the Norman domain, since they included the Channel Islands (*Îles Anglo-Normandes*), but they were referred to as 'maps of Normandy' during the fieldwork for this study in order to use a term that would be familiar to informants.

differences, for example). Informants were asked to give examples of the differences they perceived, though they were often not able to do so, as has previously been found when asking non-linguists to comment on linguistic matters (*eg* Preston 1996: 42). If the way of speaking in an area that they indicated had a particular name apart from the place-name of the area, they were asked to indicate that too.
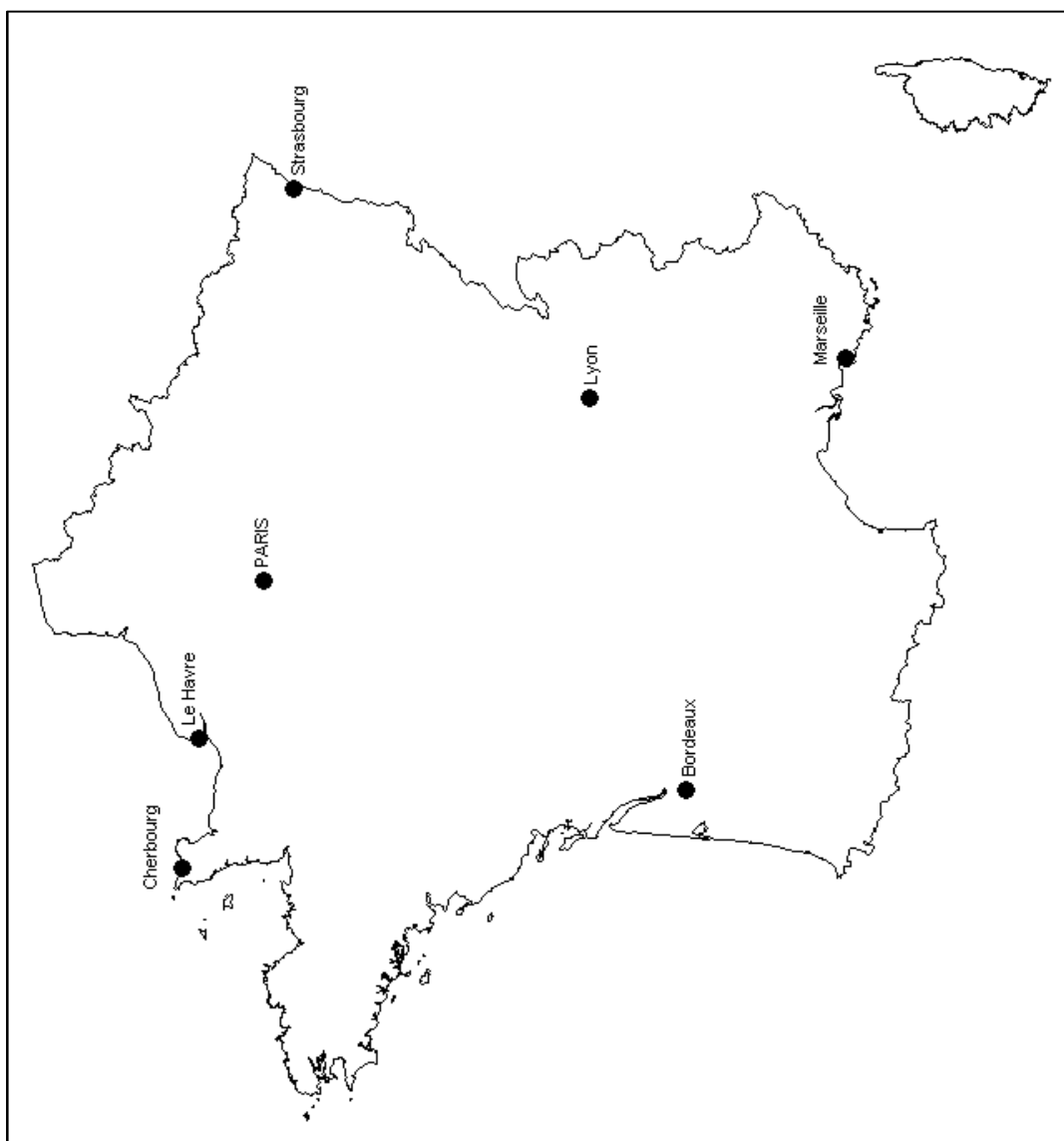
Figure 6-1
'Blank' map of France as presented to informants
85% of original size

As throughout, informants were asked to think about people's ways of speaking *when they were speaking French*, not any of the local autochthonous Romance varieties (the various varieties of Norman).
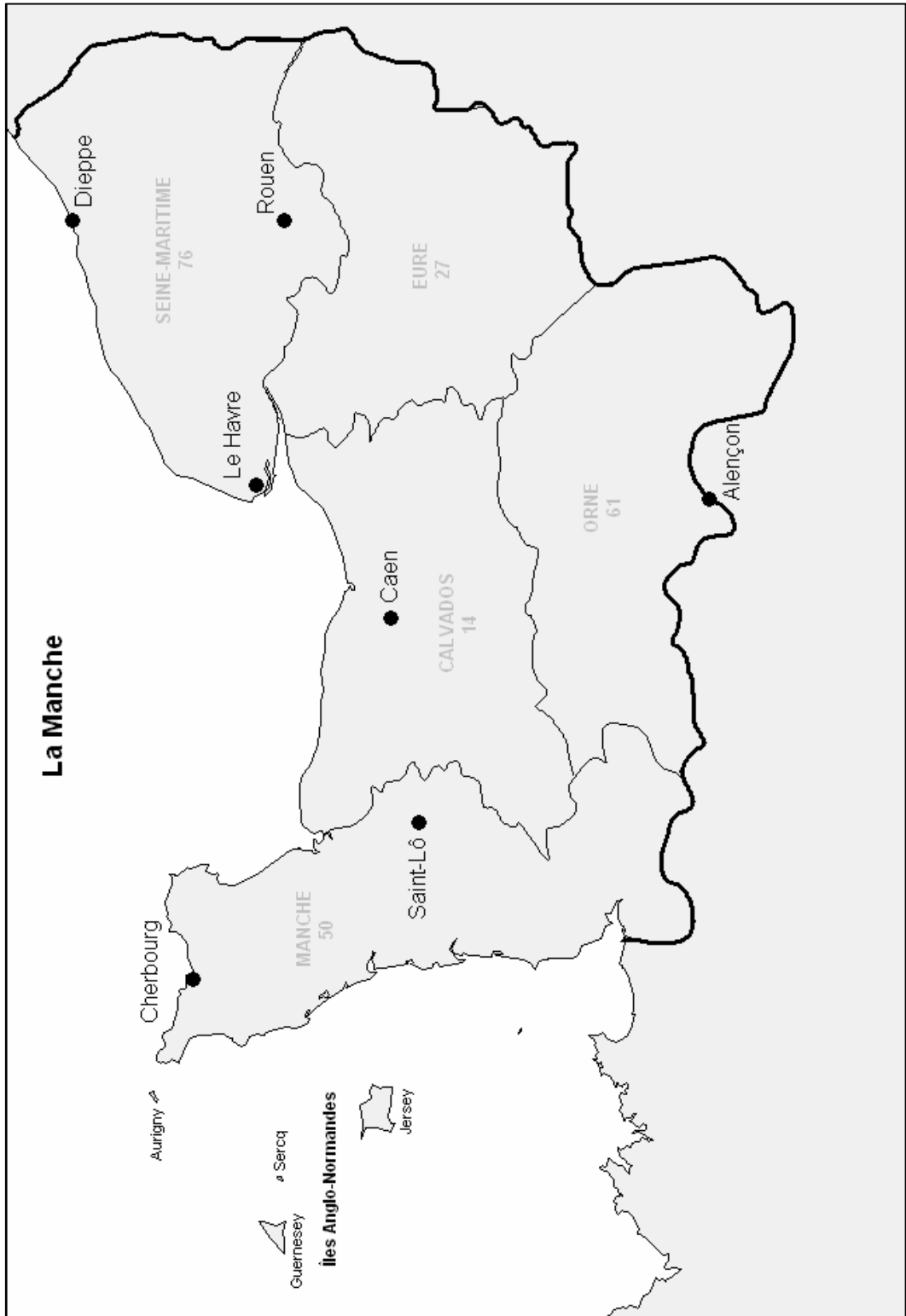
Figure 6-2
'Blank' map of the Norman domain as presented to informants
Original size

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The map of France was presented before the map of Normandy, and was used as a diagnostic of informants' ability to fill in the map of Normandy. The reasoning was that, if informants were able to distinguish different ways of speaking French over the whole of France, where the differences are very marked (for example, between the North and the South, regions divided by an isogloss bundle running in an arc approximately from Bordeaux, North-East to the centre of France, and then South-East to Grenoble: *cf* Lepelley 1999a: 21), then they would at least potentially be able to distinguish differences within Normandy. This turned out to be true in most cases: only four informants out of the total of 87 who took part in this task (27 in La Bonneville and 60 in Darnétal) said they were not able to distinguish differences within Normandy. The results from these four informants are taken into account here: that is, when the proportions of informants who identified a given accent boundary are calculated, I include the four informants who could not hear any differences within Normandy in the denominator of the fraction, with the reasoning that their opinion was still an opinion about differences in French (or lack of them) within Normandy.

The informants' maps of France are not analysed in this study. They are an interesting source of data in their own right, of course, and will certainly be the subject of a future study, but they are not directly relevant to this study of the Regional French of Normandy.

6.1.1 Construction of the blank maps

The 'blank' maps of France and Normandy presented to informants were intentionally left as blank as possible, in order to reduce the possibility that informants would draw isoglosses along borders or around cities marked on the map simply because the borders or cities were there (*cf* Preston 1989: 25). Nevertheless, I felt that it would be impractical – possibly bordering on unfair – to present informants with *completely* blank maps showing only a landmass. There is a widespread folk perception that some French cities do have their own accent (*cf* Hauchecorne & Ball 1997 on Le Havre; Lodge 2004 on Paris); in some cases, of course, this perception is supported by linguistic evidence. Secondly, this part of the study is about folk perceptions of isoglosses, so it must be guided by what informants wish to put on the maps. If informants wished to delimit an accent according to some existing political boundary, it would not be reasonable to expect them to know that boundary in enough detail to be able to draw it freehand. A common case where a boundary was actually needed on a map was the border between the South of the Manche *département* and the neighbouring Calvados *département*, since (in the North of the Manche, at least) there is a widespread perception of a different accent in Calvados.[40]

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[40] The perception is supported by linguistic evidence: one very salient feature of the Southern Manche accent is an apical [r] for French /ʁ/, a feature which can still be found in older speakers from the area. One

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I therefore decided to include some information, but a minimal amount, in the 'blank' maps: seven major cities on the map of France, and the *département* borders and seven cities and large towns on the map of Normandy.[41] This was intended to be enough information to be useful to informants in filling in the maps, but not so much information that the isoglosses they drew would be exclusively guided by the pre-existing content of the maps.

6.1.2 Guiding informants in filling in the maps

Before filling in their maps, informants were also told that they should not limit themselves to the cities and *départements* already marked on the maps, and that I had included those cities and *départements* merely to guide them. The approach was largely successful, in that a large enough number of the isoglosses drawn by informants did not seem to rely exclusively on the geographical features which had been on the map to begin with. A certain number of informants *did* rely exclusively on these pre-defined

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of my rural interviewees (not included in this study, of course) is a female working-class speaker in her 80s from St-James, Manche (in the apical-r area), who has lived in La Bonneville for about sixty years, having moved there when she married; she retains her apical [r], and is affectionately known for it in the village.

[41] The *département* borders were added to the map of Normandy after the pilot study in the Rouen area, during which it became clear that at least some informants needed more information than just the cities in order to complete this task. One early informant correctly marked Cauchois as being spoken in Upper Normandy, but drew an isogloss around an area at least twice as large as the actual area where that variety is spoken; another wished to identify regional varieties of French with *départements*, but was not certain where the *départements*' borders were. The first six maps of Normandy by urban informants were therefore filled in on blank maps with no *département* borders. All other maps from the urban site, and all maps from the rural site, were filled in on blank maps which included the *département* borders. Despite the difference in the 'blank' maps with which they were presented, the accent boundaries marked by the first six urban Normandy informants are still included in the following analysis.

geographical features (for example, merely circling the names of cities or *départements* where they believed there was an accent, or drawing isoglosses around single *départements*). These judgements were included in the analysis with the same value as judgements which did not noticeably follow any pre-defined features, since the goal of the study was to take account of all folk perceptions of isoglosses, and because some of the pre-defined features did coincide with regional varieties which have been documented elsewhere. Both features that are pre-defined in the maps and features not pre-defined in them are prominent in the aggregated results from this part of the study.

When talking about local Romance varieties (in order to emphasise that these were *not* what I was looking for in these maps), I always referred to them as *patois*. Though this term is frowned upon by local language enthusiasts and activists, it is the universal folk term for the varieties among Norman 'lay people' (that is, inhabitants with no special linguistic training or interest). No language enthusiasts or activists were included in the study, so that the results would not be influenced by what any particular informant thought he or she ought to say or the way in which he or she ought to pronounce a given word; therefore, all informants in the study were 'lay people' in this sense.

As we will see, though, it is clear that in some cases informants were not able to make the distinction between local French on the one hand and Norman / *patois* on the other. Some said so, and accordingly indicated on the maps where different varieties of *patois*, not

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RFN, were to be found; these informants' maps have not been included in the following analysis. For other informants, it was clear from their maps that they were (at least partially) recording the boundaries of varieties of Norman, and not those of different varieties of RFN (though they did not say so). This happened mostly with Rouen informants, some of whom labelled their maps with *Cauchois* (the most common name of the Norman variety of the Pays de Caux, North of Rouen). Where such an identification was clear (usually from an annotation on the map), the relevant isoglosses were not included in my analysis, though other isoglosses drawn by the same informant on the same map (not identified as boundaries of a variety of Norman) were included.

Finally, in some cases it is not clear whether an informant was thinking of local French or of *patois* / Norman when they filled in their map. This lack of clarity usually occurs, of course, when the informant did not label their map. In such cases, the isoglosses drawn by that informant have been retained. In the first place, it seemed to be clear to most informants that I wanted them to mark accent boundaries for French, so the informants who (unconsciously?) marked them for Norman instead are in a minority. There is no way of proving this, but it is the impression given by most of the maps and most of the interviews. Secondly, even a map marked with accent boundaries for Norman is a depiction of the local, non-standard ways of speaking of which that informant was aware,

and, as such, it is as valuable as a record of perceptions as is a map of accent boundaries for RFN.

6.2 Analysis

6.2.1 Analysing the informant maps

Since data like these map data arguably increase in value the greater the number of informants, the number of informants in this part of the study (N=27 for La Bonneville; N=60 for Darnétal) is greater than in the phonetic-phonological part of the study. The informants who gave map data include most, but not all, of the informants analysed for phonetic–phonological data, since some older informants (who had difficulty reading or writing) did not complete any Formal Methods, and also because four informants who would have been willing to complete this map task could not in fact see any differences in the French spoken within Normandy.

The map data in this study were analysed using MapInfo Professional ® (MapInfo Corporation 1985-2004). Informants' paper maps were scanned and traced into MapInfo by hand so as to produce two composite maps (one for each study area) (Figures 6-3 and 6-4). I then characterised each accent boundary indicated by each speaker (by the area covered) and logged the boundaries in a spreadsheet so as to count the number of boundaries indicated by different informants in the same area; this enabled me to

calculate the relative popularity of boundaries for a given area. For example, I could say that 21.7% (13/60) of the Darnétal informants drew an isogloss around the Rouen area, signifying that they thought there was an accent there. Finally, I ranked the indicated boundaries by popularity, and used the MapInfo composite maps to draw (freehand) isoglosses corresponding to the most popular boundaries indicated at each of the two study areas. This methodology is similar to that used in *eg* Preston (1989) and Hartley & Preston (1999), and in some of the Japanese work translated and re-published in Preston (1999). In some of his work Preston has been able to use computers to produce the averages of informant-drawn isoglosses; there is no generally-available computer program to do this, so the 'average isoglosses' in the popularity maps presented here (Figures 6-8 and 6-9) were drawn by eye and hand.
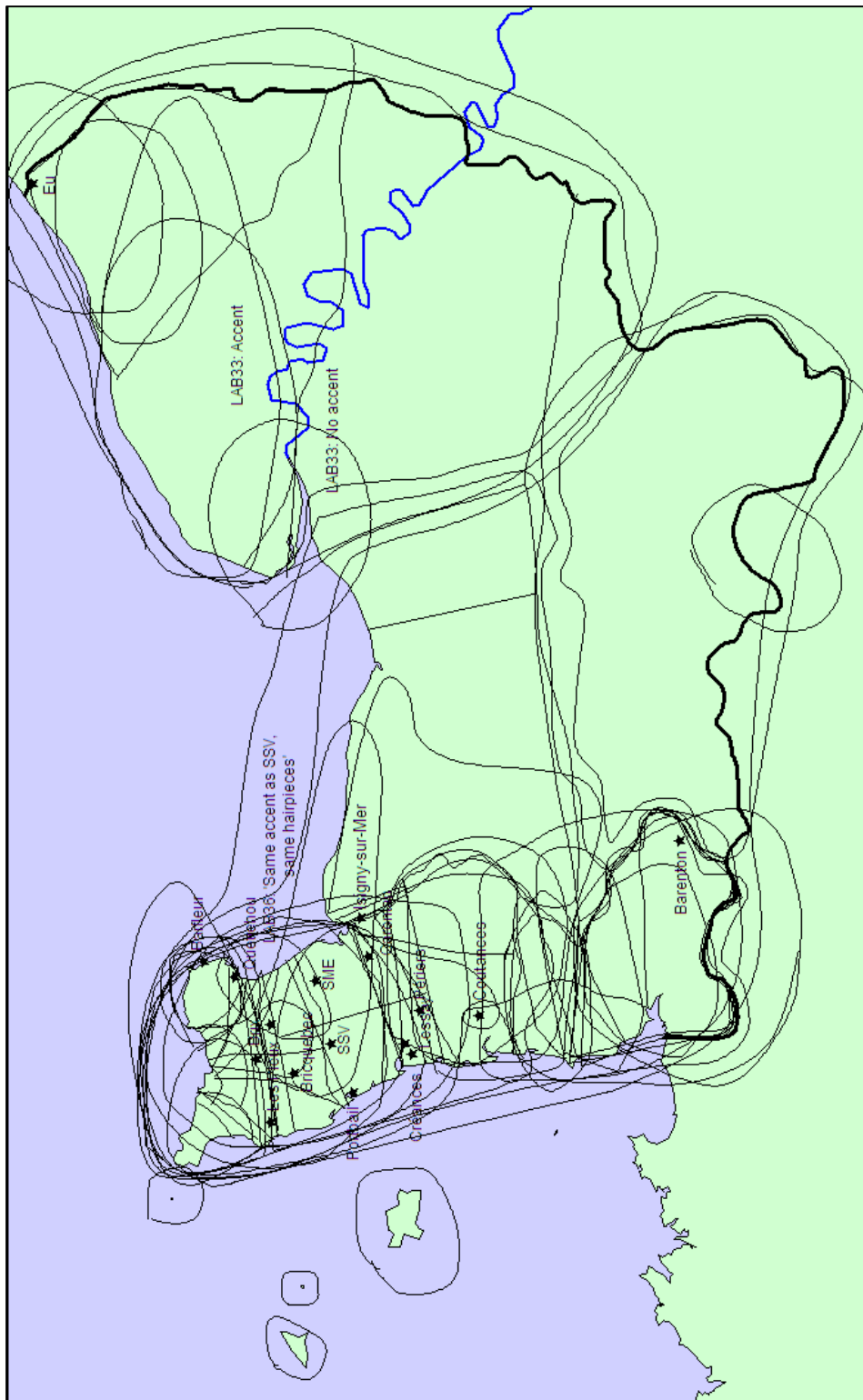
Figure 6-3
Composite map, rural site, showing all isoglosses drawn and towns mentioned by at least one
informant (N = 27)

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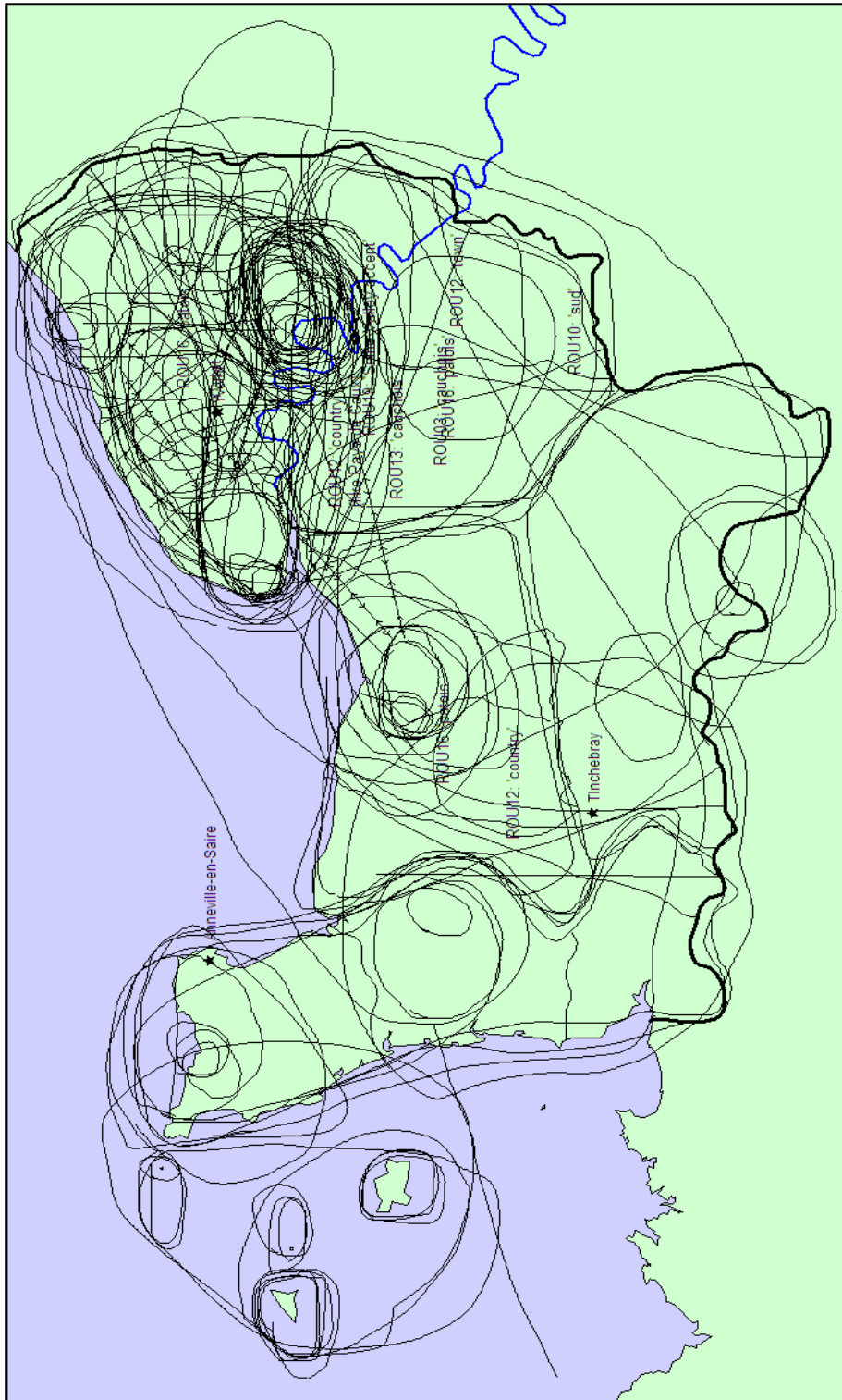
Figure 6-4
Composite map, urban site, showing all isoglosses drawn and towns mentioned by at least one
informant (N = 60)

By 'accent boundary' I mean any one of three possibilities:

- an unbroken ring isogloss drawn around a particular area;

- an isogloss drawn from one location to another, dividing the territory but not forming part of a ring (for example, an isogloss across the Manche *département* to separate the North of it from the South (Figure 6-5), or an isogloss between the Haute-Normandie and Basse-Normandie *régions*, extending from the sea to the landward boundary of Normandy); or

- a ring isogloss drawn around a particular town indicated on the map (not including the territory around that town), or a town not printed on the map but drawn in by an informant (for example, many informants indicated that there was a Rouen accent by drawing a ring around the town or its name but not drawing it wide enough to include the territory around the city).

In tracing informants' accent boundaries into MapInfo, I was as neutral as possible (tracing exactly and only what appeared on the map), but I sometimes had to make decisions about what an informant had meant. The simplest example of this is a boundary drawn West-East across the Manche *département* from coast to coast (Figure 6-5). Such an isogloss has the effect of dividing the *département* into a Northern and a Southern portion, and of unambiguously separating out a Northern Manche area (since the Northern half of the *département* is a peninsula). Does the informant mean that there are

two separate, identifiable accents in the Manche *département*, one in the North and one in

Figure 6-5
Close-up of the Manche *département* from map filled in by ROU12:
isogloss dividing the *département* from coast to coast, isolating the
Cotentin peninsula *de facto*
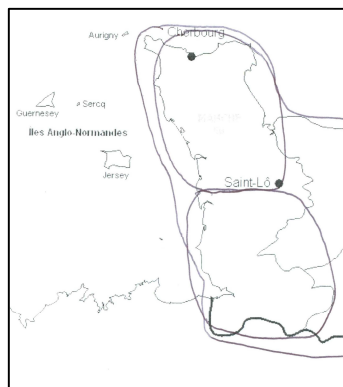
Figure 6-6
Close-up of the Manche *département* from map filled in by LAB23:
two separate isoglosses, explicitly creating two separate accent areas
in the *département*

the South? Also, is this kind of boundary equivalent to separate rings drawn all the way

around the Northern and Southern halves of the *département* (Figure 6-6)? In cases such

as this, I was guided by labelling if there was labelling, or by the style in which the

boundary was drawn, if no labelling was given. Examples of my reasoning on this type of

question follow immediately.

Figure 6-7 gives an example of unlabelled areas which were nevertheless characterised as
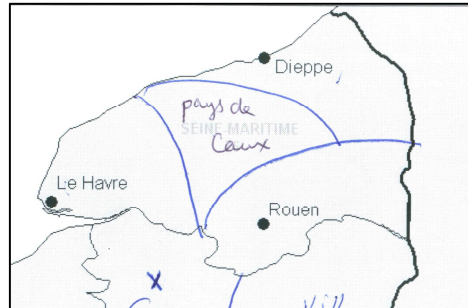
Figure 6-7
Close-up of the Seine-Maritime *département* from map filled in by ROU12:
three accent areas (Le Havre area, Rouen area and Pays de Caux) and one
area not considered an accent area (around Dieppe)

intentional accent areas drawn by the informant, and an example of an unlabelled area

which was not classified as an intentional area, based on the way in which the boundaries

were drawn. In this figure, I considered that the informant had drawn three intentional

accent areas within the Seine-Maritime *département*: the Rouen area, the Le Havre area

and the Pays de Caux. This decision was made because the isoglosses around the Le

Havre and Rouen areas are curves very roughly centred on the cities in question; the third

isogloss, closing off the Pays de Caux to its North, is also a curve centred roughly on the

Pays de Caux (and the informant mentioned the accent of the Pays de Caux in her

interview). No isogloss is curved around Dieppe, however, and the informant also did not

write or say that she considered the Dieppe area to have its own accent, so her map was

not classified as indicating a Dieppe accent.

It is clear from this description of the procedure that the decision as to whether an unlabelled area represented an accent for the informant or not was sometimes difficult to make. In most cases, however, the areas where an informant intended an accent to be shown were clear, either because the informant indicated it on the map (as they were asked to do), or because of something that they said in this part of the interview.

Finally, in some cases where a town was ringed, the decision as to whether the informant meant to include strictly only the town, or the town and the surrounding area, was difficult. In such cases, I was as objective as possible in classifying the isogloss, bearing in mind that (at this stage at least) I wanted to keep separate categories for 'town' and 'town + surrounding area'. It will be seen later (particularly in Figure 6-9, the urban site's popularity map) that, in many cases, isoglosses including only a given town were approximately as popular as isoglosses including both the town and the surrounding area. This is true for Caen (10% of informants said there was a Caen town accent; a further 8.3% said the accent extended to the area around Caen), Rouen (16.7% said there was a town accent, 21.7% an area accent) and Le Havre (6.7% said there was a town accent and 13.3% an area accent). In further work, the division between 'strictly town accent' and 'area accent' can probably therefore be abandoned, but it has been retained here for illustrative purposes.

	Mentioned by	
	Rural	**Urban**
Alderney	✓	✓
Alençon area		✓
Alençon town	✓	✓
All except Manche		✓
Area N of Dieppe		✓
Barfleur	✓	
Border between Calvados and Haute-Normandie	✓	
Border between Seine-Maritime and Eure		✓
Bricquebec	✓	
Brix	✓	
Caen area		✓
Caen town		✓
Calvados and Orne		✓
Central Calvados		✓
Channel Islands		✓
Channel Islands & Cherbourg		✓
Cherbourg town	✓	✓
Côte des Îles (Western coast of Manche *département*)	✓	
Cotentin	✓	✓
Coutances	✓	
Coutances area	✓	
Créances	✓	
Darnétal		✓
Dieppe area	✓	✓
Dieppe town		✓
Dieppe, Rouen, Caen, Le Havre all same		✓
East of Eure		✓
Eastern Manche coasts	✓	
Eastern Seine-Maritime		✓
Eastern St-Lô area	✓	
Eure departement		✓
Guernsey	✓	✓
Isigny-sur-Mer	✓	
Isogloss N-S through Seine-Maritime		✓
Isogloss through Orne & Eure		✓
Jersey	✓	✓
La Hague	✓	
La Haye-du-Puits	✓	
La Haye-du-Puits & Coutances	✓	✓
Le Havre area		✓
Le Havre town	✓	✓
Les Pieux	✓	
Lower Normandy *région*	✓	✓
Manche (whole *département*, not divided)		✓
Manche and Calvados	✓	
Manche coasts	✓	

	Mentioned by	
	Rural	**Urban**
Mortain area	✓	
North central Manche	✓	
Northern half of Manche	✓	✓
Northern tip of Manche	✓	✓
Northern Seine-Maritime	✓	✓
N-S isogloss East of Caen	✓	
N-S isogloss West of Caen	✓	✓
Orne	✓	✓
Part of Eure and Orne (labelled 'Sud')		✓
Pays de Bray		✓
Pays de Caux	✓	✓
Périers	✓	
Quettehou	✓	
Rouen area		✓
Rouen town		✓
Sark	✓	✓
Seine Valley (incl. Le Havre & Rouen)		✓
Seine Valley + Dieppe		✓
Seine-Maritime & St-Lô same		✓
Seine-Maritime and Calvados		✓
Seine-Maritime coast		✓
Seine-Maritime departement	✓	✓
SME/SSV	✓	
Southern Calvados		✓
Southern Manche	✓	
Southern Manche + Orne	✓	
Southern Manche, Western Calvados, Western Orne		✓
St-Lô town		✓
St-Lô area	✓	✓
Tinchebray area		✓
Upper Normandy *région*	✓	✓
Val de Saire	✓	
Valognes/SME/SSV	✓	
W of Eure departement		✓
W-E isogloss North of St-Lô	✓	
W-E isogloss South of St-Lô	✓	
W-E isogloss through mid-Eure		✓
W-E isogloss through mid-Seine-Maritime		✓
Western Eure, Eastern Calvados, central Orne		✓
Western Seine-Maritime		✓
Western St-Lô area & Calvados	✓	
Yvetot town		✓

Table 6-1 (previous 2 pages)
Accent boundaries identified by informants
✓ = at least one informant at this site identified this boundary

In total, across the two study areas, 88 unique accent boundaries were indicated by informants (Table 6-1). This means that, after I had characterised all the boundaries drawn by the 87 informants, a total of 88 different boundaries were represented. The Pays de Caux had the maximum number of informants for any one particular boundary, being drawn by 14 out of the total of 87 informants; at the other end of the scale, 45 different accent boundaries were drawn by only one informant each.
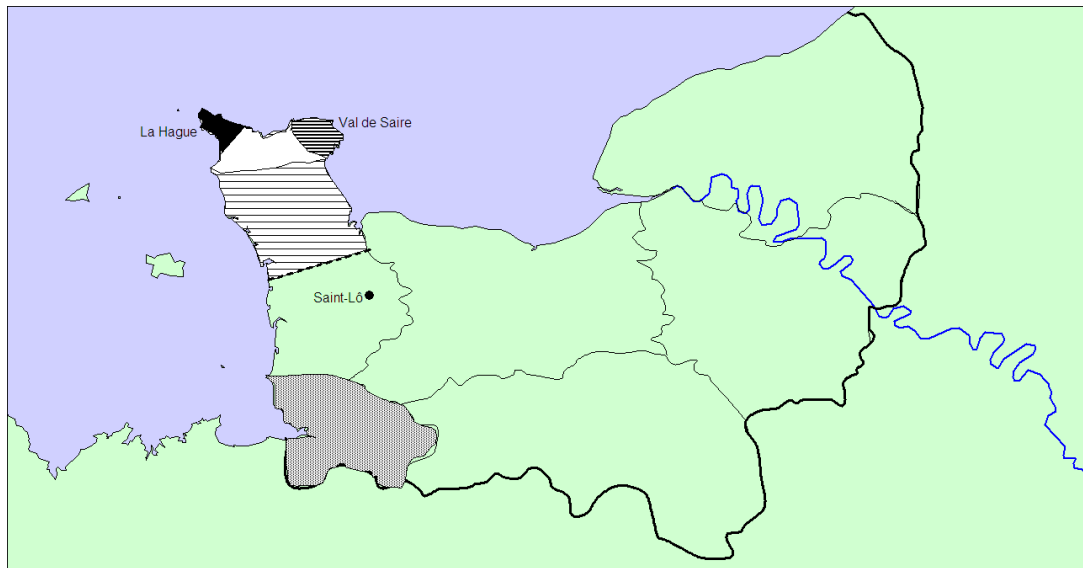
Accent area or boundary identified	N (total N = 27)	Percentage
La Hague	10	37%
Val de Saire	9	33.3%
Southern part of Manche	8	29.6%
Northern half of Manche (includes 'Northern tip of Manche', La Hague area and Val de Saire area, which each also figure here in their own right)	4	14.8%
'Northern tip of Manche' (includes La Hague and Val de Saire, which each also figure here in their own right)	3	11.1%
E-W isogloss North of Saint-Lô	3	11.1%

Figure 6-8
Popularity map, rural site, showing all accent areas and boundaries identified by three or
more speakers
Département boundaries also indicated
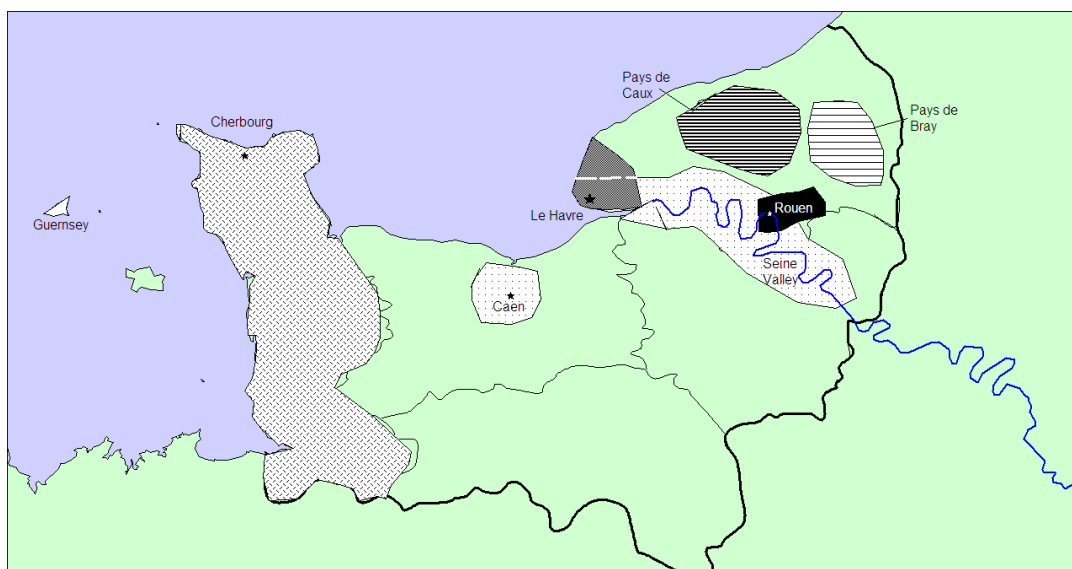
Accent area or boundary identified	N (total N = 60)	Percentage
Rouen area (Rouen town: N = 10 / 16.7%)	13	21.7%
Pays de Caux	12	20.0%
Le Havre area	8	13.3%
Pays de Bray	7	11.7%
Manche *département* = Caen town	6	10%
Caen area = Seine Valley (partially overlaps Le Havre area)	5	8.3%
Guernsey = Le Havre town = Cherbourg town	4	6.7%

Figure 6-9
Popularity map, urban site (areas and boundaries from >3 speakers)
Département boundaries also indicated
Symbol '=': 'is as popular as'

The popularity map for the rural study area (Figure 6-8) includes all boundaries which were drawn by 3 or more rural informants (11.1% of the rural sample). The popularity map for the urban study area (Figure 6-9) includes all boundaries which were drawn by 4 or more urban informants (6.7% of the urban sample). These cutoff points were chosen because, in each case, the informant count below the cutoff point included a large number of isoglosses, which would have made maps difficult to read. The rural composite map, down to boundaries drawn by three or more informants, contains six isoglosses; if it had been extended to boundaries drawn by two informants, a further eight isoglosses would have been included. The urban composite map, down to boundaries drawn by four or more informants, contains 8 isoglosses and shows 4 towns; if it had been extended to boundaries drawn by three or more informants, a further 6 isoglosses and 2 towns would have been included. Another reason for including fewer boundaries in the maps is, of course, that the more boundaries are included, the less reliable some of them are as indicators of popular perception. Particularly in the rural case, I felt that boundaries drawn by only two informants were in no way guaranteed to represent a general perception of an 'accent', since (at that low level of popularity) such perceptions could easily have been produced by other factors. The informants concerned could have been in the same French class at school, or members of the same family, for example: on a few

occasions I did in fact interview several members of the same family, and once several members of the same school class.

It is also true that the fewer informants indicated a particular accent area, the more chance there is that they are mistaken, particularly if they all share some common influence. In general, of course, in a survey of speakers' opinions, it is not the outside linguist's place to decree that informants are mistaken, since the linguist should act as a neutral recorder and collator of opinions; but (in this study at least) there are clear cases where we can safely say that speakers are mistaken. The best example here is the speakers who drew isoglosses around the Channel Islands (as a whole), or around individual islands, to indicate that there is a particular way of speaking *French* in the islands. (Recall that I emphasised to informants that I was interested in French, not in Norman, for these maps.) In fact, French has not been used in any significant part of daily life in the Channel Islands since the mid-1970s at the latest (Brasseur 1977). The most likely source of this mistake is that informants who made it were in fact recording the fact that (they had been taught that) *Norman* was spoken in the Islands, and that they did not have separate concepts of Norman on the one hand and the Regional French of Normandy on the other. Alternatively, especially since many of the schoolchildren who were interviewed in Rouen made this mistake, it could be that they had been taught that French had been spoken in the Channel Islands until fairly recently, and not remembered that it was now

extinct there. These children did not live close to the Channel Islands; it was not likely that they would have been to the Channel Islands and been able to record their personal experience of the language there. The fact that this kind of error can be fairly widespread is illustrated by the appearance of Guernsey among the most-indicated accent boundaries by urban informants: 4 urban informants (6.7%) said that there was a particular accent of French in Guernsey.

The composite maps and Table 6-1 also show that perceptions of accent boundaries in the two sites for this study have very little in common. The top ten areas represented in the Rural composite map are all different from the top ten areas represented in the Urban composite map. The most popular accent boundaries in each study-area are the ones local to that area. This is not unexpected, given previous findings from similar work (see the Introduction to Preston 1999 for a summary, particularly pp xxxiv – xxxv). None of the accent boundaries indicated in Figure 6-8 (most popular boundaries for the rural site) is outside the Manche *département*. While five out of twelve accent boundaries indicated in Figure 6-9 (most popular boundaries for the urban site) are outside the Haute-Normandie *région*, in at least some cases they seem likely to reflect informants' expectations rather than actual differences, since these judgements were not repeated by people who actually lived in the areas concerned. For example, one of the most popular accent boundaries indicated by urban informants was an isogloss drawn around the whole of the Manche

département; no informant from the rural site (which is in the Manche) drew this very general accent boundary, instead dividing the *département* into at least two areas.

6.2.2 Dividing the sample by social factors

Dividing the sample by any social factors soon ran into the problem hinted at above: because the number of differently-classified accent boundaries drawn by the informants was high (88 different boundaries between the 87 informants), the number of informants in any sub-group who had drawn any one boundary was correspondingly low. In this section I will therefore limit myself to impressionistic comments on the division of the sample by age (alone), and its division by sex (alone).

With one interesting exception, the divisions of the two samples by age and sex show approximately the same most popular accent boundaries as do the undivided samples. Accent boundaries which were identified by at least three men in the relevant site have been included in these figures.
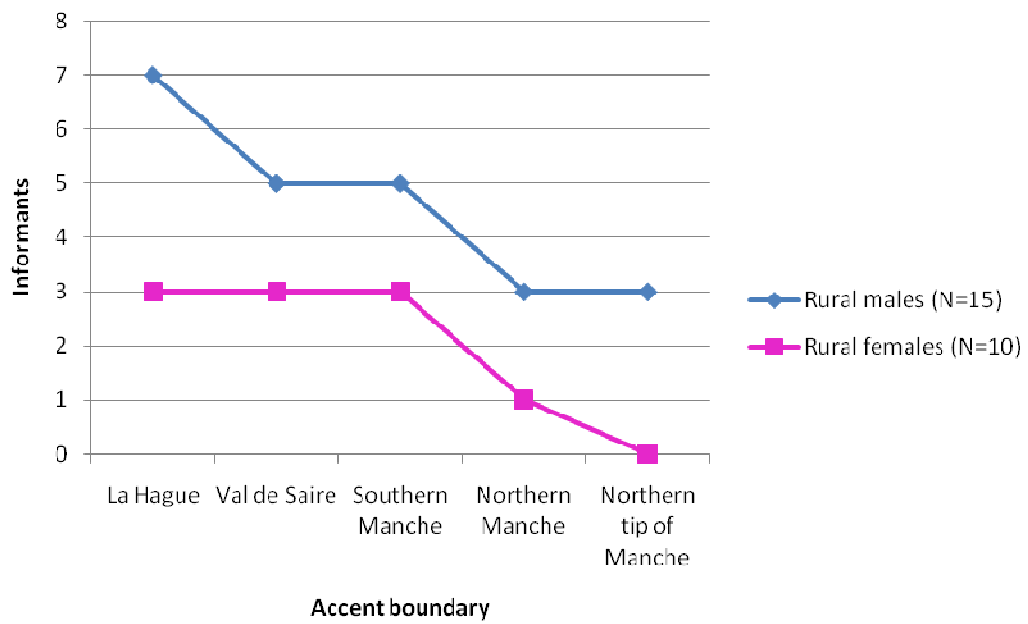
Figure 6-10
Most-identified accent boundaries, rural site, by sex

Figures 6-10 and 6-11 show that male and female informants show similar trends in the accent boundaries they name. In the rural site, Pearson's product moment correlation coefficient (*r*) between the male and female trends is 0.85, very high; in the urban site, *r* = 0.61, fairly high. Particularly in the rural site, then, this statistic indicates that the male and female informants have very similar intuitions about where the accent boundaries fall in their area.
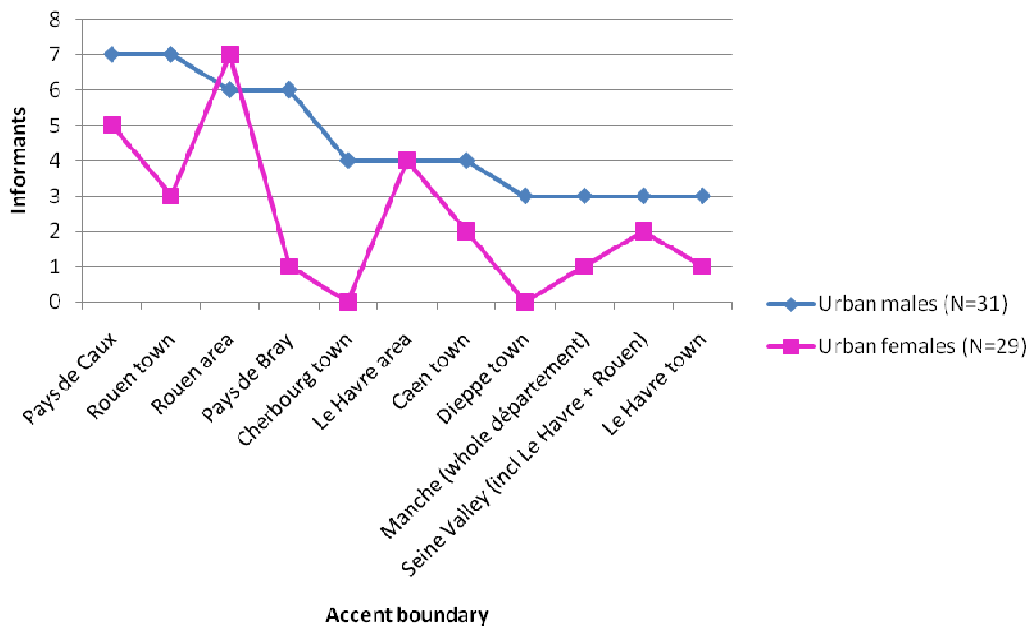
Figure 6-11
Most-identified accent boundaries, urban site, by sex

If we divide the samples by age-group, too, we see that the individual age-groups reflect

the overall trends for each site in the same way. In many cases, particularly in the rural

site, the individual age-groups are too small to permit rigorous conclusions, because the

number of different accent boundaries named means that in some cases (the <20yrs and

>69yrs age-groups) the most popular accent boundaries named were named by only two

people. The middle two age-groups, which are bigger, add to the impression that the most

salient accents in the Manche, to the people who live there, are those in La Hague and the

Val de Saire, at the Northern end of the Cotentin (Tables 6-2 and 6-3). Also worthy of

note is the fact that two people in each of these two age-groups identified an accent

boundary outside the Manche: in the oldest and youngest age-groups, no more than one

person in each group identified such a boundary, and so no accent boundaries outside the

Manche appeared among the most popular for the rural site as a whole. As for the RFN

Accent area or boundary identified	N (total N = 7)	Percentage
La Hague	4	57.1%
Val de Saire	3	42.9%
Pays de Caux	2	28.6%

Table 6-2
Three most popular accent boundaries, 20-44 age-group, rural site

vowel variable (e) (Chapter 4), this seems likely to reflect the fact that the two middle

age-groups are in the workplace and are likely to have to interact with people outside the

area where they live.

Accent area or boundary identified	N (total N = 11)	Percentage
La Hague	5	45.5%
Val de Saire	4	36.4%
Southern Manche	4	36.4%
Northern half of Manche	2	18.2%
Dieppe town	2	18.2%

Table 6-3
Five most popular accent boundaries, 45-69 age-group, rural site

Accent area or boundary identified	N (total N = 7)	Percentage
Pays de Caux	3	43%
Caen town	2	29%
Caen area	2	29%
Seine-Maritime *département*	2	29%

Table 6-4
Four most popular accent boundaries, >69yrs age-group, urban site

Accent area or boundary identified	N (total N = 18)	Percentage
Rouen area	5	28%
Pays de Caux	5	28%
Pays de Bray	4	22%
Seine Valley (incl Le Havre and Rouen)	4	22%
Le Havre area	2	11%
Rouen town	2	11%

Table 6-5
Six most popular accent boundaries, 45-69 age-group, urban site

Accent area or boundary identified	N (total N = 22)	Percentage
Rouen area	7	32%
Le Havre area	5	23%
Manche (whole *département*)	4	18%
Pays de Caux	4	18%
Rouen town	3	14%
Le Havre town	3	14%
Eure (whole *département*)	3	14%

Table 6-6
Seven most popular accent boundaries, 20-44 age-group, urban site

Accent area or boundary identified	N (total N = 13)	Percentage
Rouen town	4	31%
Guernsey	4	31%
Alderney	3	23%
Jersey	3	23%
Sark	3	23%
Caen town	2	15%
Cherbourg town	2	15%

Table 6-7
Seven most popular accent boundaries, <20yrs age-group, urban site

Turning to the urban site (Tables 6-4 to 6-7), we see that three of the four age-groups show the same most popular accent boundaries as do the urban informants taken together. The exception (the 'interesting exception' referred to above) is the >69yrs age-group. This is the only age-group in the urban site which does not have Rouen among its most popular accent boundaries: the town of Rouen was identified as having a particular accent by only one informant over 69 years old, and the wider Rouen area by none. This implies that, for the oldest age-group in this sample, the 'Rouen accent' was not yet as prominent as it became later, with the younger age-groups. By contrast, three of the four age-groups (all but the youngest) identified the Pays de Caux as having a distinct accent. We can therefore see that the idea that there is a Rouen accent is becoming more popular, while the idea that there is a Pays de Caux accent is becoming less popular (the Pays de Caux was not in fact identified as having a distinct accent by any of the 13 informants in the youngest urban age-group).

Bulot (1998) has indeed found that in Rouen there is a popular conception of a 'Rouen accent', and, furthermore, that this idea is strongest in the most working-class areas, even if he also found that it was difficult to define the phonetic characteristics of the perceived accent. The sample for that study was not divided by age, so we cannot draw a parallel with the finding here that the oldest generation does not identify a specific Rouen accent.

Likewise, there are many studies (Schortz 1998, Bulot 2006) showing that people in rural Upper Normandy are aware that there is a different way of speaking in the Pays de Caux, though the studies of that area that I have been able to consult are on Cauchois, the local variety of Norman, not on the local French. In the results of the map-task in this urban community, identification of the Pays de Caux as an area with a separate accent of French is strongest in the oldest age-group, and gets weaker with decreasing age of informants, until no informant in the youngest age-group says there is a separate accent there. This finding is perhaps not surprising given that the agricultural population of the Pays de Caux has been constantly diminishing since at least 1954, and the number of second homes owned by non-natives, and non-agricultural primary residences, has been growing (Frémont 1981, quoted by Gilet 2002: 145). This demographic change makes it likely that the importance of the Pays de Caux as a separate part of Upper Normandy has been diminishing slowly but surely for the inhabitants of Rouen, since its importance in the local economy has surely diminished (for example, notwithstanding the importance of sporadic local markets such as the Darnétal Sunday one, people now shop more in supermarkets, where before they would have bought more local produce).

6.3   Language attitude questions

At the end of the interview (after filling in the maps, for those who filled them in), informants were asked:

- Do you think there is a local accent here?

and, if the answer was 'Yes':

- Can you give any examples of it?

- Do you talk that way yourself?

- Is it a good way to talk?

As during the map task, the notion of 'accent' was not defined any further, in order to get access to the widest possible range of people's concepts of a 'local way of speaking'. The answers to the first question were:

Site	Able to answer	Yes	No
La Bonneville	20	15	5
Darnétal	33	30	3

Table 6-8
Answers to the question
'Is there a local accent here?'

Clearly, if an informant did not think there was an identifiable local accent in their area, they would not be able to answer the more specific questions about the characteristics of that local accent, so, in the rest of this part of the study, I will consider only the responses from people who did think there was a local accent in their area. One rural informant did say that she did not think there was a local accent, but went on to say that she did think she spoke in the local manner, and that it was a good way to talk. Since it is not clear from this response what she thought of as a 'local accent', her response will not be included in the further analysis here.

In Table 6-9, '?' refers to informants who either did not answer the question or found it

Site	'There is an accent'	Do you have the accent?			Good way to talk?		
		Yes	No	?	Yes	No	?
La Bonneville	15	7	2	6	8	2	5
Darnétal	30	15	11	4	6	14	10

Table 6-9
Answers to questions:
'Do you have the local accent?
'Is the local accent a good way to talk?'

difficult to answer. Those informants generally said they could not answer the question

because 'this was just the way they talked': they had never considered whether it

represented a particular accent or not, and / or could not make a value judgement on it.

6.3.1 'Do you have the local accent?': overview

Before considering informants' answers to the question of whether or not they had the

local accent, we ought to consider briefly what exactly the local accent *is*: that is, what

possible answer they could give to the question. I have remarked above that, although

separation of /a/ and /ɑ/ and merger of /ɛ/ and /e/ have both been shown to be

characteristic of the Regional French of Normandy, they are not features of Normandy

alone. Unless an informant gave those particular examples when asked for examples of

the local accent, therefore, we cannot be sure whether or not their idea of the 'local

accent' includes those features. The following results should therefore be thought of not

as providing an extra dimension for the definition of the Normandy accent, but as confirming that these particular vowel variants (alone) do not represent Normandy.

Possibly the most striking result from the 'Do you have the local accent?' question in Table 6-9 is the fact that the question caused much more confusion in La Bonneville than it did in Darnétal: in La Bonneville, 6/15 informants (40%) gave no answer to the question, whereas in Darnétal only 4/30 (13.3%) did not answer it. Fisher's Exact Test[42] shows that there is no significant difference between the two sites with regard to whether informants considered that they had the accent or not ($p = 0.25$).

6.3.2 'Is the local accent a good way to talk?': overview

The most interesting result from this part of Table 6-9 was given by the two-thirds of informants who could answer the question: there is a significant difference between the two sites in terms of whether the local accent is a good one ($p = 0.01$). 8/10 rural informants (80%) believe that the local accent is a good one, whereas only 6/20 urban informants (30%) believe the same about their local accent.

For Darnétal, this result is not surprising, given Bulot's (1998) finding that the Les Sapins area of Rouen had a stigmatised accent (and that attitudes towards it were generally the

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[42] Fisher's Exact Test was performed using the online calculator at
http://www.danielsoper.com/statcalc/calc29.aspx .

same as attitudes towards the accent of the Left Bank of Rouen, a more deprived area characterised in the rest of Rouen as being inhabited largely by immigrants). Les Sapins is in the East of the *commune* of Rouen, immediately adjacent to Darnétal, and the demographics of the two areas are the same: there is a lot of unemployment and the standard of living is generally low, with many working-class people living there. If the accent of Les Sapins is not viewed favourably by the Rouennais, then, it is not surprising that the Darnétal accent is not viewed favourably either.

For the La Bonneville area, there is no comparable attitudinal work of which I am aware (done in Normandy on Normans). The informants for Kuiper (1999), all from the Île-de-France (Paris region), did not find what they perceived as the Normandy way of speaking particularly pleasant, rating it 13[th] out of the 24 distinct area accents that they identified between them (if 'pleasantness' can be taken as analogous to 'goodness' of accent in the present study). The high 'good accent' rating that La Bonneville speakers gave to their own accent suggests that they (at least, those who could answer the relevant questions) are very linguistically secure; this is in contrast to the Darnétal speakers, who are linguistically insecure, most likely for the reasons suggested by Bulot's research.

Since there are comparatively few reponses to the questions 'Do you have the local accent?' and 'Is the local accent a good way to talk?', we can examine the answers from individuals to see whether there is any correlation between the answers they gave and

their social atributes (age, sex and socioeconomic status) or their 'accents' as portrayed by the linguistic variables examined in this study.

6.3.3   Individual language attitude questions – more detail

A more detailed look at the answers to each of the language attitude questions asked here, and at the individuals who gave each type of answer, gives us a deeper insight into some aspects of the Normandy speech-community.

Answers to the most straightforward question, whether or not speakers in each study-site believe there is a local accent there, reveals much about the status of the accents in each place. T-tests were used to examine whether there was a significant difference in age, educational category, occupational category or overall socioeconomic class between those who thought there was a local accent and those who thought there was not. The results are shown in Table 6-10.

	N	Age	Education	Occupation	SEC
La Bonneville	20	$p < 0.05$	n.s.	n.s.	n.s.
Darnétal	33	n.s.	n.s.	$p < 0.01$	$p < 0.05$

Table 6-10
'Do you think there is a local accent here?'
Significance of social factors

In La Bonneville, the mean age of informants who thought there was no specific local accent was 66yrs (N = 15), whereas the mean age of informants who thought there was a local accent was 42yrs (N = 5). In Darnétal (N = 30), on the other hand, age did not make

a significant difference, but occupational category and overall socioeconomic class (of which occupational category was one factor, along with education) did. Informants who believed there was no local accent (N = 3) had a mean occupational score of 1.7 (between 'unemployed' and 'blue collar – unskilled') and a mean socioeconomic class score of 4.3 (Lower Working Class); informants who believed there was a local accent (N = 30) had a mean occupational score of 3.7 (between 'blue collar – skilled' and 'white collar – unskilled') and a mean socioeconomic class score of 7.6 (Lower Middle Class). (For more details on educational, occupational and socioeconomic class scoring, *cf* Chapter 2, Methodology.)

These significant differences are good reflections of the meaning of 'speaking with the local accent' in our two communities. In La Bonneville, the only social factor which makes a difference to whether or not a speaker believes there is a local accent is age; the average speaker who believes there is a local accent is 42 years old, whereas the average speaker who believes there is no local accent is 66 years old, a difference of 24 years. On average, then, the speakers who believe that there is no local accent are almost old enough to be in the oldest age-group for this study (>69yrs). This age-group was defined precisely because its members would be old enough to remember when the local variety of Norman was widely spoken in the area, and potentially to be speakers of it themselves. (The criterion was in fact that speakers in the oldest age-group should be old enough to

remember the Second World War, which was around the time when *patois* use started to decline, at least in mainland Normandy.) In fact, only one of the five La Bonneville speakers who do not think there is a local accent is younger than 70 years old (he is 40 years old). If he is excluded from the group, the average age of the other four La Bonneville speakers who did not think there was a local accent is 72yrs, which is in the range of the oldest age-group.

If speakers in the oldest age-group do speak the local variety of Norman, or are at least familiar with it, they are less likely to consider strange an accent in French which arises at least partially from the Norman substrate (because they themselves form part of that substrate). These, therefore, are the people most likely to think that there is no specific local accent in the La Bonneville area, and that is indeed what they think.

In Darnétal, on the other hand, age was not significant, but occupational score and overall socioeconomic class made a significant difference. This was true even though the difference between the mean age of speakers who did not think there was a local accent (68yrs) and the mean age of speakers who did think there was a local accent (47yrs) was still large, at 21 years, and still went in the expected direction (the speakers who did not think there was a local accent were older). The fact that it was occupational score and SEC that made a significant difference in Darnétal, and that the speakers who thought there was no local accent had less prestigious occupations and were in a lower

socioeconomic class than those who did think there was an accent, speaks to the status of the local accent in Darnétal / Rouen. We have seen before (from the findings of Bulot) that the local accent is stigmatised, and is thought of as coming from the more deprived areas of Rouen; it makes sense, therefore, if the people who do not think there is a specific local accent are precisely those who have lower socioeconomic status and less well-regarded occupations. These people do not see the characteristic local way of speaking as a specially marked accent because it is the way in which they themselves speak, just as the oldest generation in La Bonneville do not see the local way of speaking as a specially marked accent because it is the way in which they themselves speak.

6.3.4   What did individuals think?

In the following analysis, statements about whether or not particular individuals had a merger for a particular vowel are based on their Interview data, on the basis that these data were much more likely than the Formal Methods data to represent the way in which they spoke while not being observed. The only exception is LAB24, who did not record an interview but did record Formal Methods: in his case, judgements are made on the basis of his Formal Methods. These statements should also be treated as observations rather than conclusions, since they are based on data from comparatively few speakers; in order to be included in the sample discussed below, speakers had to have been analysed phonetically (24 speakers for each location) *and* they had to have given adequate answers

to the language attitude questions. Many speakers did not answer one or more of the language attitude questions, and of course such speakers cannot be included in the discussion below.

6.3.4.1   Individuals in La Bonneville

In the Rural site, ten informants said that there was a distinctive local way of speaking, and were coded phonetically. Of these, six said that they thought they spoke in the local way themselves. The results are summarised in Table 6-11.

Speaker	Sex	Age	SEC	Thinks they have local accent?	Local accent a good way to talk?	(a) variant	(e) variant
LAB13	F	40	UWC	✓	✓	Ndy	Ndy
LAB14	M	40	UWC	✓	✓	Ndy	Standard
LAB16	M	24	UWC	✓	?	Ndy	Ndy
LAB17	M	17	UWC	✓	✓	Standard	Ndy
LAB22	M	52	LWC	✓	✓	Ndy	Standard
LAB47	M	54	UMC	✓	✓	Standard	Ndy
LAB23	M	17	UWC	✗	✗	Ndy	Ndy
LAB24	M	17	UMC	✗	?	Standard	Ndy
LAB45	M	40	LMC	?	✗	Ndy	Ndy
LAB34	F	45	UWC	?	?	Standard	Ndy

Table 6-11
Rural speakers who thought there was a distinct local accent
Results for whether they think they have a local accent / whether it is a good way to talk
Results for whether they have the Normandy variant of (a) and (e)

(In the vowel variable columns of Tables 6-11 and 6-12, 'Ndy' = 'has the Normandy variant for this variable'; 'Standard' is used as a short-hand for 'does not have the Normandy variant for this variable', but the use of the term is not intended to imply that all speakers of non-Normandy French have a 'standard' phonology, that all such speakers merge /a/ and /ɑ/, or that all such speakers keep word-final /ɛ/ and /e/ separate.)

The striking overall result from Table 6-11 is that speakers are not generally good at perceiving their own accents. This is not a new result, of course. The fact that people often do not perceive their own way of speaking as different from any other is demonstrated by the inability of many Normandy informants to answer the question about whether or not there was a local accent. What Table 6-11 shows in addition to this, though, is that even people who think they can perceive a local accent are not good at discerning whether or not they themselves have it, for specific (phonological) variables. Of the six rural speakers who said they thought there was a local accent and that they themselves had it, only two – LAB13 and LAB16 – were right for both vowel variables. Four speakers who said they had the local accent did in fact have the Normandy variant for (a), and four speakers who said they had the local accent did in fact have the Normandy variant for (e), but the four speakers were not the same in each case.

Speakers' judgements as to whether the local accent is a good way to talk show an equally bad fit with whether or not individual speakers actually had the accent features which they were judging. Of the speakers who said they thought they had the local accent, all but LAB16 said they thought it was a good way to talk; LAB16 said that it was just the way he talked, and that he could not put a value-judgement on it. The remaining five speakers who said they had the local accent thought that it was a good way to talk. Three of these five did in fact have the Normandy variant for (a), and three also had the

Normandy variant for (e); however, again, the three speakers were not the same in each case.

For (a), the three speakers who were right to say they had the Normandy variant *and* said they thought the local accent was a good way to talk were LAB13, LAB14 and LAB22, all Working Class; for (e), the three speakers who were right to say they had the Normandy variant *and* said they thought the local accent was a good way to talk were LAB13 (UWC), LAB17 (UWC) and LAB47 (UMC). This seems to show that the Normandy variants of (a) and (e) are mostly (though perhaps subconsciously) connected with being working-class; LAB47, though a reasonably wealthy Internet entrepreneur at the time I interviewed him, had started his working life as a farmer and still lived in a small farming village at the time of interview. We should not put too much weight on this conclusion, however, since in this case the majority of the sample is made up of working-class people. It is also hard to explain why LAB14 should have the standard variant of (e), and LAB22 should have the standard variant of (a), if these variants are linked to the Working Class. LAB14 (UWC) is married to LAB13, who has the Normandy variants of both (a) and (e), and, though LAB14 owns a small roofing business, he is proud to work with his hands in the village community where he was born and has his roots, and to live there in a house he built. Despite the fact that he owns a business, he would therefore think of himself as working-class, and yet he has the standard variant of (e). LAB22 is

also a native and resident of La Bonneville, and is at present unemployed: he in fact has the joint lowest SEC score in the rural sample, and (impressionistically) probably the lowest standard of living. A speaker with these characteristics might be expected to show all the stereotypical local accent features, but this phonetic analysis shows he does not (though, pre-analytically, his speech certainly has a strong local flavour).

It is also extremely interesting that the two speakers who did not think that the local accent was a good way of talking – LAB23 and LAB45 – both had the Normandy variants of both (a) and (e). It is possible that both their lifestyles predisposed them to thinking beyond the local. LAB23 (M, 17, UWC), though he comes of a working-class family, has frequent contact with Middle Class people (he is in the same school and church group as LAB17 and LAB24), often travels outside his local area, and would like to have a career in tourism or hospitality; LAB45 is a carer at an old people's home, again outside his local area. For various reasons, then, these two speakers are likely to place a high value on speaking clearly and in a way that they perceive to be as widely understood as possible: LAB23 because he would like to work in a sector where the majority of his colleagues will not be from his area of France, and many may not even be French; LAB45 because in his daily work he speaks to people who may not be from his local area (since his workplace is outside it), and also may well have hearing difficulties. Despite these imputed intentions, though, neither LAB23 nor LAB45 is able to control his accent

so as to rid it of its local traits, even though they say that they think these local traits do not constitute a good way to speak.

Given this (again, well-documented) lack of control of their own accents by speakers, it will be interesting to look briefly at the kinds of responses speakers gave when asked to give examples of the local way of speaking. 15 informants in La Bonneville said that they thought there *was* a local way of speaking, but only five of them were able to give examples; for two of these, the way they identified was in fact speaking in *patois*, not a local way of speaking French. Of the remaining three responses – those who identified a particular way of speaking *French* when asked about the local way of speaking – one mentioned the double complementiser, and two mentioned something which seems to indicate a characteristic local use of intonation or stress:

- 'we have a clipped way of speaking, we stress some words in a certain way' (LAB19: F, 76, UWC; translation mine)
- historical vowel-length is still exploited for expressive purposes, *eg* 'ah, que je suis gênée /ʒeːneː/' "oh, how an**noy**ing!" (LAB36: F, 83, LMC). Both the vowels in *gênée* would have been long historically (the first because it was initially followed by <s> and later marked by a circumflex, the second because it is feminine); there are no vowel-length distinctions in modern Standard French, but these historical

long vowels are still said to be observed in some regional varieties, among them the Regional French of Normandy.

Since there were very few responses to this question, it would be unwise to draw further conclusions, but it is interesting to note that none of the speakers here mentioned the two vowel-variables investigated for this study, though contributors to the radio programme mentioned above did talk about (a).

6.3.4.2 Individuals in Darnétal

The number of informants who answered the attitudinal questions for this study in the urban site was much greater than in the rural site, but the number of urban speakers who said they thought there was a local way of speaking and were coded phonetically is not much greater than in the rural site, since the selection of informants to code phonetically did not depend on whether they had completed all parts of the interview but on their social characteristics. In Darnétal, 30 informants said they thought there was a local accent and, of these, eleven were phonetically coded. The results are summarised in Table 6-12.

We can make several observations about these informants.

Speaker	Sex	Age	SEC	Thinks they have local accent?	Local accent a good way to talk?	(a) variant	(e) variant
ROU12	F	40	LWC	✓	✗	Ndy	Ndy
ROU41	F	43	UWC	✓	No answer	Ndy	Standard
ROU45	F	50	UWC	✓	✗	Standard	Standard
ROU50	M	51	UWC	✓	✗	Ndy	Ndy
ROU51	M	26	UMC	✓	✓	Ndy	Ndy
ROU58	M	55	UWC	✓	✓	Ndy	Ndy
ROU24	M	40	LMC	✗	?	Ndy	Standard
ROU37	M	76	UWC	✗	✓	Ndy	Ndy
ROU49	F	81	LMC	✗	✗	Ndy	Standard
ROU54	M	15	LMC	✗	✗	Ndy	Standard
ROU63	M	34	LMC	✗	✗	Ndy	Standard

Table 6-12
Urban speakers who thought there was a distinct local accent
Results for whether they think they have a local accent / whether it is a good way to talk
Results for whether they have the Normandy variant of (a) and (e)

- In Darnétal, the proportion of phonetically-coded informants who do not think they have the local accent is much higher than in La Bonneville (6/11 Darnétalais informants think they have the local accent, and 5/11 think they do not; in La Bonneville, 6/10 think they have the accent, but only 2/10 said unambiguously that they did not think they had the accent).

- In Darnétal, the proportion of phonetically-coded informants who do not think the local accent is a good one is also much higher than in La Bonneville (5/10 informants in La Bonneville think their local accent is a good one, and only 2/10 say unambiguously that it is not; by contrast, 3/11 Darnétalais informants think their local accent is a good one, and 6/11 say that it is not).

These two observations suggest that the local way of speaking in Darnétal / Rouen is much more salient to the Darnétalais / Rouennais than the La Bonneville way of speaking is to the Bonnevillais.[43] The phonetically-coded urban informants in this study all have a definite idea about whether or not they have the local accent (though whether or not they are right for specific variables is another matter, as we shall see below). This apparent increased salience of the local way of speaking, combined with the general perception of the area as depressed and low-status, explains the high proportion of informants who think that the local accent is a bad one: there is comparatively little pride in the area as a whole. It would be wrong to suggest that *no-one* was proud of being Darnétalais, but nevertheless the local way of speaking also falls victim to the general perception that the area lacks prestige.

Table 6-12 (above) shows that, of the six speakers who thought that there was a local accent of French and that they themselves had it, four were right for both variables; this proportion is twice as high as in La Bonneville, and may again be explained by the increased salience of the Darnétal / Rouen accent compared to the La Bonneville area one. Only one informant, ROU45 (F, 50, UWC), was wrong for both variables (*i.e.* she said she thought she had a local accent, but in fact had the 'standard' variant for both (a)

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[43] 'Bonnevillais' here refers to natives of the rural study area for this study, not just to natives of the *commune* of La Bonneville itself.

and (e)). ROU45 is a town-hall receptionist, and this public-facing job may explain why she had a standard way of speaking (at least for the variables examined here): she also thinks that the local accent is not a good way to talk. We should note, though, that ROU50 (M, 51, UWC), who *does* have the Normandy variant for both (a) and (e), is also a town-hall receptionist: he works for the *commune* of Maromme, which is in a different part of the Rouen conurbation which has a similar social profile to Darnétal's (when judged by the employment figures for both *communes*, from INSEE 2008). Like ROU45, ROU50 does not think that the local accent is a good way to talk, but in other ways he is a proud Darnétalais: he has never lived outside Darnétal, even though that means a lengthy commute for him, and he and his family are very much involved in Darnétal community life. Perhaps the fact that he still has the Normandy variants of both (a) and (e) reflects this.

Of the five Darnétalais informants who did not think they had the local accent, none were correct for both variables: all five kept /a/ and /ɑ/ separate. Only one of these informants – ROU37 – was wrong for both variables, though, as he also merged /ɛ/ and /e/, so he had the Normandy variant for both. ROU37 (M, 76, UWC; he is also mentioned in Ch2) spent most of his career in insurance, having started out in Darnétal's then-large textile industry but moved to insurance after the Second World War, when he could see that the textile industry was going into terminal decline. In his job, then, ROU37 might well have had to

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talk to people from outside his local area, and so he may well have had an interest in speaking in a non-local way. It was also clear from his interviews that he was conscious of the working-class / unprivileged associations of the Darnétal accent, and may have (subconsciously) wanted to avoid it for those reasons. However, at the same time, he is interested in the area's history, and proud of it (particularly the textile industry in which he had had his initial training): he lent me a rare book of historical photographs of Darnétal, and gave me a copy of a letter he had received during the Second World War from an American soldier who had been in Darnétal after its liberation in 1944. This local pride may show the reason why ROU37 kept these traits of the local accent, even though he did not consider that he had it when asked.

As for La Bonneville, the Darnétal informants' reponses as to whether their local accent is a good one show a bad fit with whether or not individual informants actually had the Normandy variants of the two vowel-variables examined here. The three people who think the local way of speaking is a good one (ROU51: M, 26, UMC; ROU58: M, 55, UWC; and ROU37 (M, 76, UWC)) are among the five who have the Normandy variant for both (a) and (e); but the two other members of this group are people who do not think the local way of speaking is good (ROU12: F, 40, UWC and ROU50: M, 51, UWC).

The common thread among all the informants who have the Normandy variants of both (a) and (e) seems to be pride in their local area, whether or not they think the local way of

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speaking is a good one. All five informants who have the local variants for both variables showed pride in Darnétal in one way or another during their interviews.

- ROU51 is the son of ROU50 and, at the time of interviewing, still lived at home, though he was in the process of buying a house with his girlfriend. He is in a higher socioeconomic class than his father on account of his higher level of education (and consequent higher-rated career; ROU51 is a teacher, whereas ROU50 is a town-hall receptionist). ROU51 told me that he felt very fortunate to be able to work in Darnétal (teachers in the French state-school system are allocated their jobs within large regions and can frequently have to commute for over an hour); this was not only because he lived there but also because he felt very attached to the area (he was not going to apply for a school transfer even though the house he was buying was on the other side of the Rouen agglomeration, 14 miles / 23 km from Darnétal, with likely traffic delays between the two).

- ROU58 is a retired specialist electrician; he took great pride in restoring a dilapidated farm on the outskirts of the Rouen agglomeration, and he now lives there. He wanted to do this rather than buy a house in a good condition, not only because he had the expertise to do it, but also because he (and his wife) wanted to stay in the area where he at least had lived all his life.

- ROU37, as is stated above, is very interested in the history of his local area, as is demonstrated by the number of rare books, artefacts and historical pictures in his flat.

- As is also mentioned above, ROU50's pride in the place where he grew up and still lives means that it is not surprising that he still has a Normandy accent (at least for the variables examined here). His public-facing job may be the reason why he does not consider that the accent is a good one.

- It is not surprising that ROU12 has the Normandy variant of both the vowel variables here, though it *is* surprising that she thinks the local accent is not a good one. As with ROU37, we have met ROU12 before: she was the informant interviewed for the newspaper who said (Ch 2) that Darnétal was a place where it felt good to live, and, furthermore, she described her job (community liaison officer) as one in which it was very important to be – and to be seen to be – on the same level as the people she worked for. She did not go into further detail about why she thought the local accent was a bad one, but it is likely to be because of the negative social evaluation of the accent, which we have seen earlier in this chapter. Though ROU12 has a great deal of respect for the Darnétal people she works with (and they too respect and love her), she is aware that the stereotypical 'Darnétal' way of speaking is not likely to bring them, or her, respect in the world outside

Darnétal, where it is sometimes needed in order to procure advantages for those people. She herself often has to negotiate with official bodies on behalf of Darnétal residents, and she may feel that her Darnétal accent is a disadvantage to her in these situations.

Many more Darnétalais than Bonnevillais were able to give examples of what they considered the 'local way of speaking' (25 Darnétalais out of the 30 who thought there was a local way of speaking could give examples, compared to 5 of the 15 Bonnevillais who thought there was a local way of speaking in their area). 16 of these 25 responses from Darnétal mentioned that the local lexicon was different; 12 of these 16 only mentioned lexical differences, while the other four mentioned lexical differences as well as differences from other modules of linguistics. All the informants who gave specific lexical examples mentioned either one or both of two very common stereotypes that the Rouennais have of their own local way of speaking:

- *'pays des armorqueurs'* I was told in a very early interview that the Rouennais referred to their region as the *pays des armorqueurs* /aʁmɔʁkœʁ/, the local way of pronouncing *(pays des) remorqueurs* 'land of the tug-boat drivers'. This sobriquet, which refers to the constant activity of the industrial port of Rouen (on the Seine), gives an example of the metathesis of the verbal prefix *re-* /ʁə/ 're-'

into [əʁ] or, in this case, [aʁ] (*cf* Carton *et al* 1983). Many subsequent informants also gave this example of the local way of speaking.

- ***'da Rouen'*** Many informants also gave this example of the local way of saying *(je suis) de Rouen* '(I am) from Rouen'. No-one gave any other example of the realisation of *de* /də/ 'of, from' as [da], but perhaps the realisation of /ə/ as [a] in both 'da Rouen' and 'pays des armorqueurs' is connected.

The other informants who said that the local way of speaking consisted of non-standard lexical items were mostly unable to give specific examples. Most seemed aware of the distinction between the Regional French of Normandy and the local variety of Norman (Cauchois); one informant said that, in that area, both lexical differences within French *and* the indigenous *patois* were present.

Some Darnétal informants also mentioned examples of the local way of speaking from other modules of linguistics. The most commonly mentioned type apart from lexical differences were phonetic / phonological differences, mentioned by 9 of the 30 informants who thought there was a distinctive way of speaking. The most common single feature mentioned was to do with pronunciation of /ʁ/. In the absence of phonetic analysis (which will certainly have to be done in future studies), it was difficult to say exactly what these informants were talking about in linguistic terms, but two phenomena

seemed to be mentioned: 'backing' of coda /ʁ/ (*cf* Jamin 2005) and elision of coda-cluster /ʁ/ (common in many varieties of French).

Other phonetic / phonological differences mentioned by Darnétal informants were more difficult to interpret. One mentioned that Standard French <ois> /wa/ was realised [wɛ], though without giving examples. Three mentioned something else to do with /a/: two said that /a/ was *(sou)levé* 'raised' (which, from their imitations, sounds as if it means 'lowered / backed' in the phonetic sense, in other words, the distinction between /a/ and /ɑ/ is maintained); one said simply *on appuie sur les a* 'we lean on a's', which probably means the same thing. Interestingly, one of the informants who said that /a/ was 'raised' did not think that in general there was a particular local way of speaking French: while he was able to identify this one feature, presumably he did not think that that was enough to constitute a system that could be said to be different.

Several informants mentioned that there was something particular about local *intonation* 'intonation': it is not certain that they all meant what a phonetician means by intonation, since their comments appeared to cover speech rate and rythym as well as (possibly) academically-defined intonation.

Finally, two informants said that the double complementiser was typical of the local way of speaking: one mentioned it as she was completing the double-complementiser

magnitude estimation task (and so did not give any specific examples), while the other gave the particular example of *comment + que*: *Comment que c'est? Comment qu'elle dit?* 'What's it like? What's she saying?'.

6.4 Summary and Conclusion

This chapter has investigated two types of folk perception of the Regional French of Normandy: informants' perceptions of where French is spoken differently, as shown by maps drawn by them, and informants' perceptions of local accents in their own areas, as shown by their answers to questions about those. Some previous findings from similar studies have been confirmed for Normandy:

- Speakers do not generally have detailed knowledge of local ways of speaking outside their own area. Within their local area, they are often able to perceive a large number of divisions (possibly even too many, a sentiment expressed in the sardonic cliché, often heard in discussions of Normandy *patois*: *il y a autant de patois que de clochers* 'There are as many *patois* as there are church towers', *i.e.* one for each village). When asked about local ways of speaking outside their area, informants often either profess ignorance or postulate accent boundaries which can be demonstrated to be wrong (as with the Channel Islands examples for Rouen).

- Whether or not they are generally good at perceiving accents, speakers are bad at perceiving accents in themselves, perhaps especially for phonological variables. This is not a surprising finding – in reaction to informants' protestations that they could not answer this question, I often remarked to them that very few people notice their own accent – but, again, this study confirms a general low level of salience for phonological variables in the Regional French of Normandy.

An interesting new finding from this study is the correlation between opinions on the accent in a given area and the most salient social variables in the population of that area. In La Bonneville, the group who thought that there was no local accent was significantly older than the group who thought there was a local accent, and, specifically, the average age of the group who thought there was no local accent was in the range of the oldest age-group for this study. Since the oldest age-group was defined precisely because its members would be old enough to have spoken the local Romance variety at least in their youth, this is a strong independent indication that the Norman substrate is a strong contributor to the local way of speaking French. The people who do not notice it are precisely the ones who do speak Norman, and this is true even for the youngest member of the group who think there is no accent, though he is much younger than the average for the group. In Darnétal, age does not make a significant difference, but socioeconomic class and occupation (itself a component of SEC) do. If we therefore postulate that the

accent is class-related, we are shown to be correct: the lower your SEC and the less prestigious your occupation, the less likely you are to think there is a local accent. Again, this would be because the local way of speaking is stereotyped as the way that lower-class people speak, and, if you speak that way yourself, you are not likely to perceive that as a special accent.

This study has also shown (for Darnétal only, since the sample there was bigger) that the economic importance of particular areas is reflected, as it changes over time, by the perception that they have or do not have a particular local way of speaking. In particular, we have seen here that the oldest Darnétal age-group was the only one not to identify Rouen as having its own way of speaking, and the youngest Darnétal age-group was the only one not to identify the Pays de Caux as having its own way of speaking. It seems reasonable to correlate these identifications with the fact that the importance and salience of the Pays de Caux for the urban Rouennais has fallen over the last few generations, as the importance of the Rouen area as a unit has risen.

Chapter 7 Conclusion

7.0 Outline of the chapter

The final chapter of this study is intended to be read in conjunction with the conclusions of the chapters which presented the linguistic results (Chapters 3-6). These results will be summarised briefly, and their implications for the questions of sociolinguistic theory posed in Chapter 1 will be considered. Finally, directions for future work will be considered.

7.1 Summary of results and interpretations for linguistic variables

The results of this study can be considered from two points of view, which are reflected in the way they are presented in the individual results chapters:

- what the linguistic results imply about the sociolinguistic status of RFN;

- how informants' attitudes about RFN, as revealed by the language-attitudes tasks, compare and interact with their usage as measured through the purely linguistic parts of the study.

7.1.1   Results and interpretation for (que)

The general sociolinguistic status of RFN in the present day is best encapsulated by the findings of this study on (que) (Chapter 5). In that chapter, informants were asked to rate ten sentences for acceptability in French: five containing doubly-filled COMP (a feature previously recorded as characteristic of RFN and Norman) and five containing (standard) singly-filled COMP. With few exceptions, informants rated the doubly-filled COMP sentences worse than the singly-filled COMP ones, and said that they were less likely to use the doubly-filled COMP sentences. Few informants rated the doubly-filled COMP sentences and the singly-filled COMP sentences as equally acceptable, but the ones who did were members of the oldest age-group.

The study also finds that social evaluation changes across the sample for both the phonological variables, (a) and (e). Informants were not asked for their opinions about the phonological variables; the evidence for their evaluation of the variables comes from the study's findings about the variables' sociolinguistic insertion. The findings are

detailed in Chapter 3 for (a) and Chapter 4 for (e). Briefly, however, we can say the following.

7.1.2 Results and interpretation for (a)

Chapter 3 details the finding that both La Bonneville (rural) and Darnétal (urban) are keeping /a/ and /ɑ/ distinct, contrary to the tendency in most parts of France. However, the first unexpected finding is that in both communities both /a/ and /ɑ/ are raising in apparent time. We see divergent social evaluation of the raising movement when the change is analysed according to the social factors considered here. In broad terms, in Darnétal, the raising of both /a/ and /ɑ/ (when they are still kept distinct) seems to be a change from below, since the proportion of speakers with /a/ and /ɑ/ raised to the same height reaches a peak in the Lower Working Class (Figure 3-10). However, the complete merger of /a/ and /ɑ/, for speakers who have it, is a change from above, to judge by the fact that many more speakers have a full merger in the more monitored Formal Methods style than in Interview style. In La Bonneville, the raising of /a/ and /ɑ/ (they are kept distinct by all informants but one) is also a change from below, and one which is clearly male-led; since only one informant in the La Bonneville sample merges /a/ and /ɑ/, it is difficult to classify the merger in this sense, but it is possible that it is a change from below (not being salient enough to be a change from above).

7.1.3 Results and interpretation for (e)

As shown in Chapter 4, the two sites of this study treat (e) differently from one another, though changing social evaluation is clear in both. In Darnétal, in Formal Methods at least, the merger of /ɛ/ and /e/ becomes more common in apparent time (Figure 4-7, Table 4-10); we can interpret this as indicating that the young in urban Upper Normandy view the merger as a prestige feature, since it is already widespread in other cities, and particularly Paris, close to Rouen. Older speakers do not share this evaluation of the merger, viewing it instead as a rural feature and stigmatising it. The data for La Bonneville show that the merger is indeed much more prevalent in rural (Lower) Normandy (Figure 4-5, Table 4-8). In La Bonneville, however, in Formal Methods merging /ɛ/ and /e/ becomes less common in apparent time. This seems to indicate that the younger speakers in La Bonneville are conscious that the merger is a rural feature, and stigmatise it for that reason. They do not perceive it as coming from any more prestigious centre; the most likely reason for this is that they do not have close contact with any such centre. The relatively higher rate of merger among older rural speakers can be taken as confirmation that the merger is indeed a historic norm for rural (Lower) Normandy.

7.1.4   Results and interpretation for attitudinal questions

Turning to informants' opinions and judgements about RFN (Chapter 6), I noted at the

end of that chapter that this study confirms the previous finding that people often have

poor knowledge of accents outside their own area, and it also finds that they often have

no conception of phonological variation. When asked to give examples of the local accent

(whether in their own speech or in that of others), no speaker in this study mentioned (e),

though some rural speakers did mention (a): they appeared to mean that the local way of

speaking maintained the distinction between /a/ and /ɑ/, possibly also backing and

rounding /ɑ/. The attitudinal part of Chapter 6 also had interesting results, especially the

question to each informant about whether there was a local way of speaking in their area,

and the map-task where informants were asked to draw isoglosses around areas where

people 'spoke differently. The question as to whether there was a local way of speaking

specific to a given informant's area revealed the most salient social variables in that area.

In Darnétal, Socio-Economic Class and Occupation made significant differences to

whether an informant thought there was a local way of speaking in their area: that is, the

average SEC score and Occupational score of informants who thought there was a local

way of speaking was significantly higher than the average SEC score and Occupational

score of informants who did not think there was a specific local way of speaking. In La

Bonneville, Age was the social factor which made a significant difference: the average

age of informants who thought there was a specific local way of speaking was significantly less than the average age of informants who did not think there was a specific local way of speaking. These results are interesting because they confirm the hypothesis that people are usually bad at perceiving their own accents. In the rest of the Rouen area, Darnétal is commonly thought of as a lower-class area which does have its own characteristic way of speaking, and it is precisely the people with a lower SEC score and lower Occupation score who do not think that the area has an accent (*i.e.* who do not notice their accent). Similarly, it is the oldest people in our rural Normandy sample who are most likely to have had some contact with Norman, at least in their childhood, if not still now (through their friends of a similar age). If we postulate that the Norman substrate in Normandy is a major contributor to RFN, it would be exactly the people who spoke Norman anyway who did not notice that Norman features in French were anything out of the ordinary. The significant difference that age makes confirms that this is true. Especially in our urban site, the changing importance of different parts of Normandy over time is confirmed by the differences between the average ages of informants who identified given areas as 'speaking differently': the only age-group which did not identify the Rouen area as having its own specific way of speaking was the oldest age-group, while the only age-group which did not identify the Pays de Caux as having its own specific way of speaking was the youngest age-group. We can interpret this as indicating

that the Pays de Caux was much more important than Rouen (if not economically, then at least culturally) for the oldest age-group, and that the almost totemic 'Norman' status of the Pays de Caux has declined over time, while the importance of the Rouen area has grown, until the former cultural importance of the Pays de Caux is not perceptible to the youngest age-group in this study.

7.2   The Norman influence in RFN

Armed with this analysis, then, it is time to revisit the questions about Norman and RFN asked in Chapter 1.

What is the relationship between Norman and RFN?

That is:

- To what extent and how are speakers able to separate SF from RFN (and standard languages from their regional variants in general)?

- To what extent and how are speakers able to separate RFN from Norman (and regional variants of standard languages from closely-related minority languages in general)?

How far are speakers able to keep the two apart?

That is, which of the following two postulated outcomes for the relationship between RFN and Norman do we see in present-day Normandy?

1. The minority language (Norman) survives in the minds of speakers, some of whom claim that they can speak both and keep them apart (this situation has been observed to prevail in the Langue d'Oc region (e.g. Pooley 2000) and in Picardy (see the work of Auger and other scholars on Picard).

2. The minority language survives not as a separate linguistic variety but through phonemes, lexical items or other features which the majority language (French) assimilates from it, making them part of the regional variety of the language (RFN).

(*cf* Ch1 above)

7.2.1   What is the relationship between Norman and RFN?

The answers to the attitudinal questions in this study made it clear that, when asked whether there is a local way of speaking which is not standard French, many natives of Normandy think immediately of Norman, the autochthonous Romance variety, a sister-language of French. This was especially true in La Bonneville, where *patois*, as Norman is universally called, is still spoken to some extent, by the speakers in the oldest age-group and rare younger ones who work as farmers or close to the land (*e.g.* farm labourers and manual professions). In that site, informants who assumed I was asking about Norman were, of course, immediately told that it was the local way of speaking *French* that I was interested in; once this was clear, they at least understood how to answer the question, and many informants acknowledged that there was a local way of

speaking French, even if they could give no examples in most cases. In Darnétal, where the local variety of Norman (Cauchois) has not been spoken within living memory, not as many informants assumed that I was talking about Cauchois, and thus the question was understood more quickly, even if informants did not necessarily find it any easier to answer than the La Bonneville informants had.

It was clear, then, that in both my study-sites informants had no difficulty in understanding the conceptual difference that I wanted them to make between RFN and Norman. However, the extent to which they kept them apart was another matter, especially in La Bonneville. As the urban informants in this study found it much easier to conceive of the difference between RFN and Norman (Norman not having been spoken in the Rouen area in living memory), the following remarks will concentrate on the situation in my rural study-site.

7.2.2   How far are speakers able to keep Norman and RFN apart?

In rural (Lower) Normandy in general, as has been noted, there is great awareness of Norman. Among the oldest people, it would be exceptional if someone had not spoken it as a child, so any Norman family with old enough members is likely to contain a Norman-speaker. Younger people are aware of the variety because of family connections and/or because of the reasonably high level of awareness of Norman in wider society.

Cultural events celebrating Norman food, drink and traditions are very common all over rural Normandy, and these will often also include some celebration of the Norman language, in the form of stories, songs or plays performed by local Norman-language groups. The most active of these is Magène (*cf* Magène 2008), [44] which regularly produces recordings of Norman-language music and drama, and also collaborates with other local organisations whose members study Norman. A Norman Festival of similar celebrations ('La Fête Nouormande' in Norman) is held for three days every May in the West of the Norman domain, moving between Jersey, Guernsey and locations in Lower Normandy (*cf* Société Jersiaise 2008): this also brings Norman to the notice of the wider public, especially through local press-coverage and the unofficial-but-tolerated street-signs that are often put up, as shown in Figure 7-1. (This situation of tolerance for unofficial signs should be compared with the situation in the parts of France where the regional minority language is officially supported: Toulouse, for example, has bilingual French-Occitan street-signs.)

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[44] The word *magène* is itself a Norman discourse-marker, an abbreviation of *j'imagène* 'I imagine'; *magène* is now a lexical item in its own right, meaning 'Well, yes!', 'I should think so!'. This meaning in itself has nothing specifically to do with the activities of the Magène association, but speakers of Norman are stereotypically thought of as using this discourse-marker frequently.

Figure 7-1
Roadsigns in French and Norman (below) at the entrance to
Bricquebec (Manche), the location of the 2007 Fête Nouormande
Photograph by the author

Finally, arguably the most acute awareness of Norman as a separate variety from French

is shown by the existence of several groups devoted to the study of the Norman language;

they read texts written in Norman by the reasonably large number of Norman-language

authors who have written in the past and continue to write today, and consider Norman to

be a separate linguistic variety *which has to be learnt*, even by speakers of French. These

are the groups who in general reject the use of the term *patois* to refer to Norman, usually

preferring *la langue normande* 'the Norman language', since *patois* usually refers to a

linguistic variety considered to be the basilectal variety of some acrolect (at least

originally), whereas Norman-language groups wish to promote a conception of Norman as a language entirely separate from French.

The inhabitants of rural Normandy, then, are usually able to separate RFN from Norman, at least when the question is carefully explained. It follows from this that there will be people who say they can speak one (French / RFN) and not the other, and indeed this is what most rural Normandy interviewees outside the oldest age-group did say. Among these younger speakers, though, even if they said that they did not speak *patois* well, they were still able to use the knowledge they had to go through my word-list (after reading it in French) and pronounce some of the words in *patois* (or translate them into it). Within the oldest age-group, most informants did claim that they could speak both Norman and French and keep them apart, and they were also very proficient at the task of translating my French word-list into Norman. Additionally, my interview with the two oldest informants in the rural sample – LAB11 (F, born 1918, UWC)[45] and her sister-in-law LAB41 (F, born 1921, UWC)[46] – shows them talking for the most part in French but frequently using Norman morpho-syntax (*quand que*), lexis (*annyi* 'today' for French *aujourd'hui*) and phonology (a long [ɑː] in words in *–ation*, *e.g. éducation* 'education',

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[45] 85 years old at the time of the first interview (2005) and 87 at the second and third interviews (2007); my third interview with LAB11 was the one where she was interviewed jointly with LAB41. This was LAB41's only interview.
[46] 86 years old at her interview.

French /edykasjɔ̃/). Of course, in this situation the informants may well have been (consciously or unconsciously) speaking in a way closer to the standard, because I, a non-native speaker of French and a beginner in Norman, was present. There is no way of quantifying this potential modification but, given that it probably did take place, the fact that there was still easily-identifiable influences from Norman in both informants' speech is significant.

The fact that the La Bonneville informants in my oldest age-group were able to pronounce parts of the word-list in both French and Norman demonstrates that to some extent, probably a fairly advanced one, these speakers were able to speak both French and Norman and to keep them apart. However, the somewhat mixed language used by LAB11 and LAB41 in the conversation I recorded, and by other older speakers when they are with their contemporaries, also shows that extensive code-switching does occur even within a single sentence spoken by such a speaker. A detailed analysis of such speakers' speech in terms of code-switching (how much French and how much Norman is present, and what form it takes) is beyond the scope of the present study. However, on evidence such as this I suggest that, the older speakers are, the more difficult it is for them to separate French / RFN on the one hand from Norman on the other in production. This applies especially when they are speaking to people with whom they have grown up, but it may also apply to their relaxed speech more generally. My evidence for this

assertion comes from my interviews with a number of the oldest speakers in my rural sample, particularly women, and particularly the ones who live in the village of La Bonneville itself, where I am well-known: I found many Norman traits in the speech of these older ladies, and took it as a compliment, an indication that they felt relaxed when talking to me.

7.2.3   Is there a Norman substrate effect in RFN?

Given the linguistic results summarised here, and the answers to these attitudinal questions, the finding of this study is that there is a Norman substrate effect in RFN, but that the Norman substrate cannot account for all the phenomena documented here.

7.2.3.1   The Norman substrate and (a)

The effect of the Norman substrate is clearest in the results for (a): in both study-sites, in all age-groups, there is a clear separation of /a/ and /ɑ/, with /a/ always fronter than /ɑ/ (see Chapter 3). The merger of these two phonemes in other parts of France is well-documented and, though there are also other parts of France where the separation is maintained, the fact that it is maintained in Norman itself makes that substrate a strong candidate to be the explanation of the separation in RFN (*cf* Jones 2001 for Jersey Norman and Fédération Départementale des Foyers Ruraux de la Seine-Maritime [1985] for Cauchois; the published grammars and dictionaries for the Norman of Lower

Normandy do not have sufficiently detailed pronunciation guides to provide documentary evidence for a separation of /a/ and /ɑ/ in that variety of Norman, but it can be heard in published recordings). The Norman substrate effect is perhaps especially important in La Bonneville, relatively far from any other influence which might lead to maintenance of the separation; in Darnétal, it could also be argued that influence from the Parisian working class is a contributing factor (many people commute between the Rouen area and Paris, and Jamin (2005) finds high use of [ɑ] among his Parisian working-class speakers). We should not discount the influence of a Norman substrate in Darnétal either, but its influence would be much less there than in La Bonneville, given that the local variety of Norman has not been spoken in the Rouen area within living memory.

Having said this, though, as is remarked in Chapter 3, arguably a more prominent movement in (a) is the raising of both /a/ and /ɑ/ in apparent time. In all age-groups and in both study-sites, /a/ and /ɑ/ are kept separate, but between the oldest and the youngest age-groups both phonemes raise towards the centre of the vowel-space; in La Bonneville this also implies some movement forward since, in the oldest age-group, both /a/ and /ɑ/ are further back than they are in Darnétal. /a/ and /ɑ/ never simply raise a little more as we move to each successive age-group in apparent time – the middle two age-groups, covering informants' working lives, often have both phonemes lower than the oldest age-group has them, and this may be because Standard French has them low – but the

youngest age-group always has /a/ and /ɑ/ higher on average than any other age-group, in both Interview and Formal Methods styles.

The separation of /a/ and /ɑ/ in the advancement dimension, then, may be accounted for at least partially by the Norman substrate, but the same cannot be said of their raising. No variety of Norman has been documented as having /a/ and /ɑ/ raised when compared to Standard French, and we must therefore look elsewhere for an explanation of that phenomenon. For the purposes of answering the question about the Norman substrate, though, we can say now that it is unlikely to account for the raising we see.

7.2.3.2 The Norman substrate and (e)

In the case of (e), it is easier to say that the change we see in both study-sites is not likely to be due to Norman substrate influence. All varieties of Norman for which detailed phonological studies have been carried out (see above, §7.2.3.1) have concluded that their variety maintains the separation of /ɛ/ and /e/, yet both La Bonneville and Darnétal here show non-negligible rates of merger of the two phonemes. As also detailed above (§7.1.3), when broken down by age the two sites are shown to treat (e) differently from one another (La Bonneville shows rates of merger decreasing in apparent time, while Darnétal shows them increasing), but the fact remains that any merger of /ɛ/ and /e/ is a movement away from the Norman system where they are separate. Instead, merging /ɛ/

and /e/ to [e] in stressed intonational-phrase-final position is more like a move towards the phonological system common in much of the vernacular French of France, where (for this vowel in this position) the *Loi de Position* applies. This summary discussion ignores the disagreement between various sources on RFN as to how the variety does in fact treat (e): RFN has been said to merge /ɛ/ and /e/ to [e] and to [ɛ], and even to 'switch' the two phonemes so that /ɛ/ is pronounced [e] and /e/ is pronounced [ɛ]; for more details, see Chapter 4. The robust result of this study for (e) is that, on average, RFN merges /ɛ/ and /e/ to [e].

7.2.3.3   The Norman substrate and (que)

The results of this study show clearly that, if there ever was a Norman substrate effect operating to convert standard (and colloquial) French singly-filled COMP into doubly-filled COMP, it is now extremely marginal. It is true that doubly-filled COMP is grammatical in all varieties of Norman (see Chapter 5 for details), but the vast majority of informants in this study judged all the single-filled COMP sentences as better French than any of the doubly-filled COMP sentences were. The reason why their judgements were mostly so clear-cut is likely to be that this morpho-syntactic variable is much more salient than phonological variables, since the doubly-filled complementiser involves an extra word on the page or in the sentence, and so children can easily be taught to avoid it.

We cannot therefore conclude (for these variables at least) that the Norman substrate has a great effect on the present-day Regional French of Normandy. This is true despite a high level of awareness of Norman, especially in La Bonneville but even in Darnétal (informants there know what the Upper Normandy variety of Norman sounds like, and know that it is spoken nearby, even if they do not speak it themselves). Norman undoubtedly has an effect in the firm separation of /a/ and /ɑ/, but other features and changes in RFN documented here are likely to arise from other sources, for example the closeness of Paris (for the Rouen area), and the more general application of the *Loi de Position* (for the merger of /ɛ/ and /e/).

7.3   Directions for future research

Any reasonably long sociolinguistic project will produce much more data than can be analysed in the course of a single study, and the 138 interviewees of this project are no exception. The present study has looked at three common variables, but many more regional features have been documented for RFN (*cf* §§1.7.1.2 and 1.7.1.3 above). At least the most common of these could profitably be analysed as sociolinguistic variables, to contribute towards as wide a description as possible of RFN. (Recall from Chapter 1 that it is not claimed that any of these features is exclusive to RFN (or to Norman); rather, what will define RFN is a particular combination of features, all of which are individually found in other varieties, but which are not found anywhere else in that combination.) This

kind of description of the regional French of one area of Normandy will contribute to the general description of the regional varieties of France which is now growing in popularity through projects such as the Projet 'Phonologie du Français Contemporain' (Durand, Laks & Lyche 2002, 2005). It is also hoped that this study will help to entrench the use of precise phonetic measurement in the description of the regional varieties of French.

Appendix A   Formal Methods materials

This appendix presents the Formal Methods materials for this study, in the following order:

1.   Word-list

2.   Sentence-blanks (single-spaced in the original document, fitting onto two pages)

3.   Reading passage (1.5-spaced in the original document, fitting onto one page)

4. Double complementiser acceptability judgements (appear here as presented to informants)

5. 'Blank' map of France to fill in (25% larger in the original document)

6. 'Blank' map of Normandy to fill in (appear here as presented to informants)

For details of how the materials were used, see §2.6, Interview protocol.

After the materials, I give checklists of the tokens of (a) and (e) in the word-list and the reading passage; these were used to count tokens as I coded them.

forteresse

curés

bocal

chat

étudiant

ville

inquiétude

pâtes

cœur

aiguille

garage

effort

pente

blé

fille

pattes

pas

travaille

criblé

âge

moitié

argile

hotte

curé

éducation

ils ont

chats

ponte

devanture

fort

biais

*	Pour avancer dans un territoire sans que personne ne le sache, _____ doivent être camouflés.

*	Les _____ croient voir des fées partout.

*	J'ai hérité mes _____ de mon père.

*	'Shhh !' ai-je dit quand des amis sont venus me voir très tard. 'Pas un mot ! Ma mère est _____, et elle dort !'.

*	Pour certaines personnes, le choix de Nicolas Sarkozy comme _____ semble un fait accompli.

*	La Reine d'_____ est montée sur le trône en 1952.

*	Un chat noir qui croise le chemin est censé apporter de la _____ chance.

*	Le titre de Pair de France a été aboli après la _____.

*	'Ville Fleurie' est l'appellation qu'on donne aux villes où beaucoup de personnes soignent bien leurs _____.

*	La plus grande ville de _____ est Rennes.

*	On peut cultiver des poires et des pommes dans un _____.

*	Lors de la commémoration de la libération de la ville, _____ a commencé en disant quelques mots d'accueil.

*	Si on veut que quelqu'un se _____, grossièrement on pourrait lui dire 'Ferme ta gueule'.

*   Après l'avoir lu, je remets le livre en place dans la _____.

*   Les _____ mangent de l'avoine.

*   Il est clair que, en France, le _____ tient les rênes du gouvernement, et non le Premier Ministre.

*   En regardant le _____ de Jean, je sais immédiatement quand il ment.

*   Il est tellement facile de faire des photos avec mon nouvel _____ numérique que j'en fais au moins cent par jour.

*   Les hôtels et les pensions sont souvent plus chers en bord de _____.

*   À _____ on pêche le hareng.

*   En Normandie en ce moment, on pense à mettre des _____ là où le vent souffle fort.

*   Au large de _____ il faut se méfier du flot, qui peut être dangereux.

*   Quand un invité arrive dans la maison, on lui montre _____ en disant 'Assieds-toi'.

*   En Normandie on brûle _____ pour se chauffer d'habitude, mais ailleurs on brûle souvent du charbon.

*   Les haies du bocage normand présentaient une grande difficulté pour les _____ qui essayaient de les prendre.

*   Le matin, je me _____ à l'aide d'un rasoir.

*   La célèbre course de _____ heures a lieu au Mans.

*   'Elle ne va pas bien', ai-je dit au _____ quand il est venu voir ma fille.

*   Après les bombardements, les bâtiments de la ville de _____ qui restaient étaient criblés de trous de balles.

*   'Mmm', disais-je en sentant les _____ du jardin de Monet. 'Ça sent bon.'

*   J'ai regardé dans _____, mais il n'y a pas eu d'actualités de notre canton.

*   Le _____ prochain, les Français vont élire un nouveau Président de la République.

    *   J'ai fait ce qu'il fallait pour assurer le ____ déroulement de la fête.

La Libération dans la Manche

Dans la Manche comme ailleurs, la libération à la fin de la deuxième guerre mondiale a connu des drames non seulement par l'affrontement des soldats allemands et Alliés, mais aussi au niveau des villages, où les gens qui y habitaient toujours essayaient de faire ce qu'ils avaient toujours fait. Un fermier se rappelle : alors qu'il trayait les vaches, dans un clos du haut de La Bonneville, « les soldats sont arrivés dans leurs voitures blindées, ils nous ont distribué des cigarettes et des bonbons, puis ils ont poursuivi leur route ». Quel bonheur pour les enfants ! Il se souvient toujours de leur joyeux rire, « ha, ha », qui sonnait à travers les champs.

Quelques-uns des habitants de La Bonneville ont dû se réfugier ailleurs. Le même fermier se souvient que c'est la famille Viel, à Amfreville, qui les a recueillis, puis ils sont allés vers la famille d'Eugène Duchemin, dans un village à côté, qui leur a donné de la place dans une bergerie. « Nous ne pouvions pas entrer dans les maisons, de peur d'être bombardés ; nous avions déjà vu bombarder les bâtiments d'une ferme de notre village, et les bombes ont presque atteint la maison appartenant à cette ferme. Dans les bâtiments bombardés, il ne restait plus de foin, plus de boxes, tout était carbonisé. »

Quand les Américains sont arrivés, la bataille a fait rage pendant deux ou trois jours. Il y a eu des dizaines de morts du côté allemand. Des civils ont été blessés aussi, et évacués parfois chez les Anglais. En ce temps de guerre où tout était réglementé, voilà au moins un voyage qu'on pouvait faire sans billet ! Il y avait aussi un poste de la Croix Rouge dans le jardin de Mme Lesage. Elle

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leur avait donné de la place pour pouvoir soigner les gens, pour qu'ils reprennent des forces.

Quant à la dame, il n'y avait pas d'avantages pour elle d'avoir la Croix Rouge dans sa cour, mais

elle le faisait par amour de l'humanité, je suppose ! Il y avait beaucoup de personnes à soigner,

car les Allemands trouvaient ça difficile de défendre les terres tout entourées de haies : la

population luttait fort. Plusieurs fois, il fallait prévenir le curé que quelqu'un était au point de

passer à l'autre monde. Est-ce que le chat noir de la ferme leur donnait de la bonne chance ou de

la malchance ? Mme Lesage, elle, n'en savait rien.

Veuillez évaluer ces phrases en cochant une case selon le schéma suivant :

1 = Français très mauvais

5 = Très bon français

		Très mauvais			Très bon	
		1	2	3	4	5
a	Il m'a dit quand il arriverait.	___	___	___	___	___
b	Je lui ai demandé où il était.	___	___	___	___	___
c	On me demandait pourquoi que j'avais fait ça.	___	___	___	___	___
d	Il voulait savoir où qu'il pouvait acheter un journal.	___	___	___	___	___
e	Je me suis demandé qui était à la porte.	___	___	___	___	___
f	Je lui ai dit quand que je serais chez moi.	___	___	___	___	___
g	Il m'a dit comment qu'il fallait faire.	___	___	___	___	___
h	On se demandait qui que ça pouvait être.	___	___	___	___	___
i	Je ne sais pas pourquoi je l'ai fait.	___	___	___	___	___
j	Veux-tu voir comment je l'ai fait ?	___	___	___	___	___

La Manche

Dieppe

SEINE-MARITIME
76

Rouen

EURE
27

Le Havre

Caen

CALVADOS
14

ORNE
61

Alençon

Saint-Lô

MANCHE
50

Cherbourg

Aurigny

Sercq

Guernesey

Îles Anglo-Normandes

Jersey
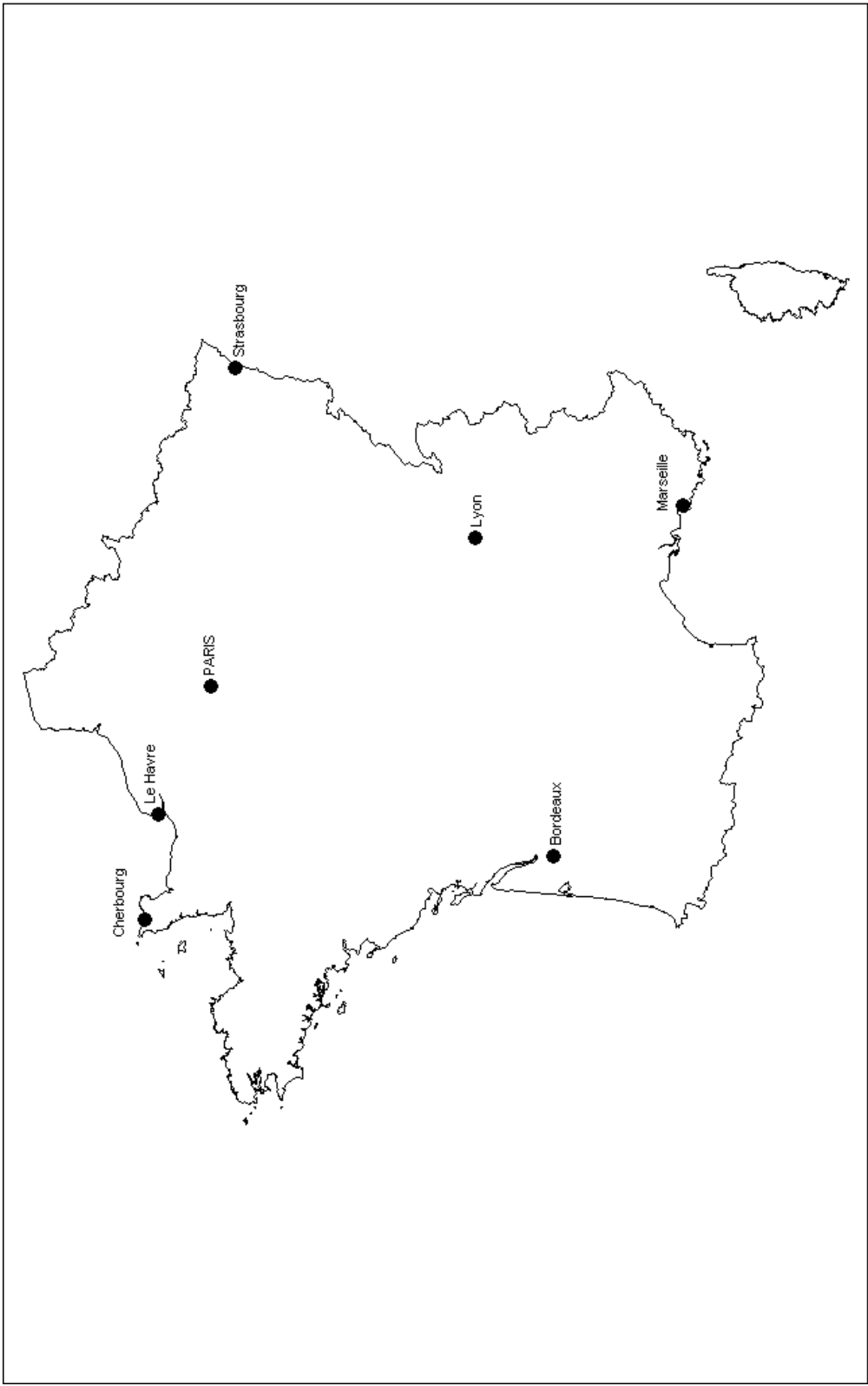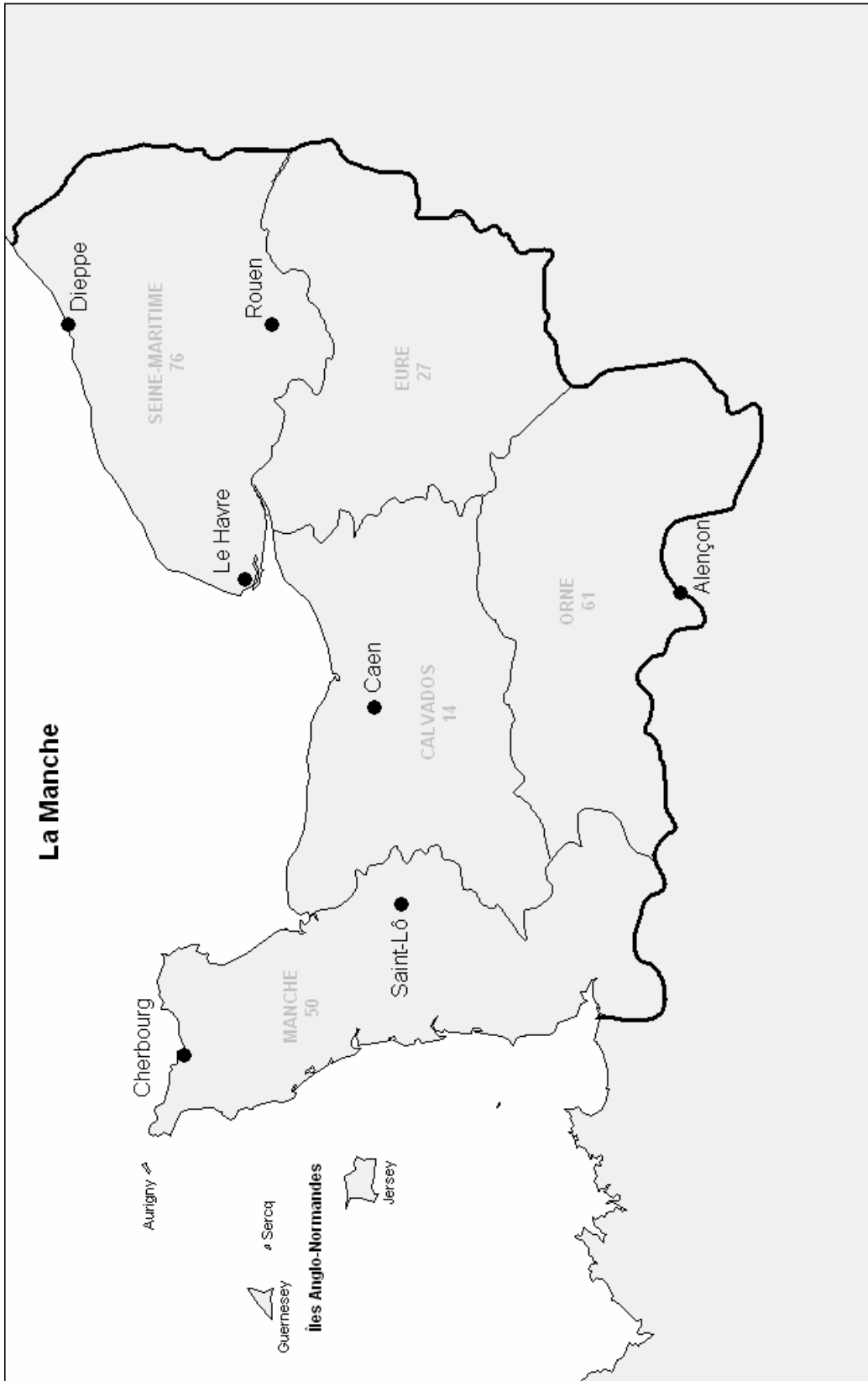
Word-list Checklist

/a/

bocal

chat

garage (1)[47]

pattes

travaille (1)

argile

chats

/ɑ/

pâtes

garage (2)

pas

travaille (2)

âge

éducation

---

[47] The numbers (1) and (2) by words containing more than one token of (a) indicate which token in the word falls into the class indicated: *eg* 'garage (1)' under /a/ means 'the first token of (a) in *garage* is to be coded as /a/'.

/e/

curés

blé

criblé

curé

/ɛ/

biais

Reading Passage /a ~ ɑ/ Checklist

Libération (title)

ailleurs

libération

a

drames

par

affrontement

soldats

allemands

allies

villages

habitaient

avaient

rappelle

alors

vaches

soldats

arrivés

voiture

cigarettes

ha

ha

travers

habitants

ailleurs

famille

a

allés

famille

village

a

place

pas

bombardés

avions

déjà

bombarder

bâtiments

village

atteint

appartenant (1)

appartenant (2)

== 15 /ɑ/ up to here ==

bâtiments

bombardés

carbonisé

Américains

arrivés

bataille (1)

bataille (2)

a

rage

trois

a

allemand

== 30 /a/ up to here ==

(évacués)[48]

parfois (1)

(parfois (2))

(voilà)

---

[48] Bracketed tokens are tokens of /a/ which were only measured if one of the first 30 possible tokens could not be measured for some reason (*e.g.* if it was too short, or the formants were not reliably detected by the analysis program.

voyage

(avait)

(Croix)

jardin

(Madame (1))

(Madame (2))

Lesage

(avait)

(place)

pouvoir

(soigner)

(à)

(dame)

(avait)

pas

(avantages (1))

avantages (2)

(avoir (1))

avoir (2)

(Croix)

par

== 30 /ɑ/ up to here ==

amour[49]

humanité

avait

soigner

car

Allemands

ça

population

fois

fallait

passer

chat

noir

malchance

Madame (1)

Madame (2)

Lesage

savait

Reading Passage /ɛ ~ e/ Checklist

et

alliés

mais

habitaient

essayaient

avaient

fait

fermier

trayait

arrivés

blindées

distribué

et

sonnait

réfugier

fermier

c'est

allés

côté

donné

entrer

bombardés

bombarder

et

bombardés

restait

carbonisé

arrivés

fait

côté

blessés

évacués

chez

Anglais

réglementé

pouvait

billet

avait

avait

donné

soigner

avait

~~mais~~[50]

faisait

humanité

avait

---

[50] *Mais* is struck through to indicate that it could potentially have been a measurable token (if an informant gave it enough stress), but in fact it was very rarely given enough stress: it was therefore not measured.

soigner

trouvaient

entourées

haies

luttait

fallait

curé

était

passer

donnait

savait

31 /e/

25 /ɛ /

Appendix B   Praat and Python code

This appendix presents the Praat and Python code used in measurement and analysis in this study, in the following order:

B-1   Praat   Vowel-coding for (a)

B-2   Praat   Vowel-coding for (e)

B-3   Python   Checking that enough tokens have been coded, after coding a

speaker

B-4   Python   Statistics from coded vowel-tokens

B-5   Python   Module to perform t-tests on two independent samples, assuming

unequal variance

B-6a   Praat   Test individual sound-files (to ensure that the files were not

                                corrupted before storage)

B-6b   Praat   Test whole folders of sound-files (same operation as script 6-a, but

        carried out on batches of recordings of a single speaker, collected in a folder)

B-1 Praat script for vowel coding of (a)

The phonological context codes used as input to the `Vowel_code` field in this script are the same as those used in the French-language version of Plotnik (Labov n.d.):

61   /a/ (all contexts)

62   /ɑ/ or /a/ in final position

63   /ɑ/

66   *-oi-* realised as /wa/

67   *-oi-* realised as /wɑ/

The output is a text-file giving the following data for every token measured, on one line per token:

1.   F1 (in Hertz), rounded to the nearest Hz)

2.   F2 (in Hertz), rounded to the nearest Hz)

3.   F3 (in Hertz), rounded to the nearest Hz)

4.   The relevant vowel-code

5.   The stress on the token ('1' for primary, '2' for secondary)

6.   The word in which the token occurs

7.   Any other comment entered in the form (this field was rarely used but could be used *e.g.* to note anything unusual about the token)

8.   The time-stamp of the token, in seconds, to four decimal places

Example script:

```
form Coding_a
word Word
natural Vowel_code
natural Stress
text speaker
sentence Comment
endform
time = Get cursor
f1 = Get first formant
f2 = Get second formant
f3 = Get third formant
fileappend "C:\Documents and Settings\Damien Hall
    \Desktop\LAB27_FWL_a.txt" 'f1:0','f2:0','f3:0',
'Vowel_code','Stress','Word$' 'Comment$' 'time:4' 'newline$'
fileappend "C:\Documents and Settings\Damien
    Hall\Desktop\LAB27_FMs_a.txt"'f1:0','f2:0','f3:0',
'Vowel_code','Stress','Word$' 'Comment$' 'time:4' 'newline$'
```

B-2 Praat script for vowel coding of (e)

As for script B-1, the phonological context codes used as input to the `Vowel_code` field

in this script are the same as those used in the French-language version of Plotnik (Labov

n.d.):

31   /ɛ/

32   /e/

The output is a text-file giving the same data as the output from script B-1.

Example script:

```
form Coding_e
word Word
natural Vowel_code
natural Stress
text speaker
sentence Comment
endform
time = Get cursor
f1 = Get first formant
f2 = Get second formant
f3 = Get third formant
fileappend "C:\Documents and Settings\Damien Hall
    \Desktop\LAB27_FWL_e.txt" 'f1:0','f2:0','f3:0',
'Vowel_code','Stress','Word$' 'Comment$' 'time:4' 'newline$'
fileappend "C:\Documents and Settings\Damien
    Hall\Desktop\LAB27_FMs_e.txt"'f1:0','f2:0','f3:0',
'Vowel_code','Stress','Word$' 'Comment$' 'time:4' 'newline$'
```

B-3   Python script for counting coded tokens

The input to the `tocode` field in this script is an informant number (*e.g.* LAB27); the module then inspects a data-file of the type produced by scripts B-1 and B-2, counts the number of each phonological context in the file and any miscodes (mistyped phonological context codes), and prints the count to the Python shell window.

```
print 'File to count:',
tocode = raw_input()
count = open(r'C:\\Documents and Settings\\DamienHall\\
    Desktop\\'+'%s'%(tocode) +r'.txt','r')

lines = count.readlines()

a_count = 0
A_count = 0
E_count = 0
e_count = 0
Miscodes_count = 0

for i in lines:
    i = i.strip()
    fields = i.split(',')
    V = fields[3]

    if V == '61':
        a_count += 1
    elif V == '62':
        A_count += 1
    elif V == '66':
        a_count += 1
    elif V == '63':
        A_count += 1
    elif V == '67':
        A_count += 1
    elif V == '31':
        E_count += 1
    elif V == '32':
        e_count += 1
    else:
        Miscodes_count +=1

if a_count <> 0:
    print 'a\t',a_count,'\n'
```

```python
if A_count <> 0:
    print 'A\t',A_count,'\n'
if E_count <> 0:
    print 'E\t',E_count,'\n'
if e_count <> 0:
    print 'e\t',e_count,'\n'
if Miscodes_count <> 0:
    print 'Miscodes\t',Miscodes_count

count.close()
```

B-4 Python script for statistical analysis of coded / measured vowel tokens

The inputs to the `tocode1` and `tocode2` fields in this script are the filenames of two files of vowel-data (the output of script B-1 or B-2): for each vowel variable, the measurements from a single speaker in Interview and Formal Methods styles. If the phonemes in each variable are defined so that /a/ and /ɛ/ are Phoneme 1 and /ɑ/ and /e/ are Phoneme 2 of (a) and (e) respectively, the outputs are the following statistics for each speaker, printed to the Python shell window:

- Mean F1 of Phoneme 1 in Hertz, Interview style
- Mean F2 of Phoneme 1 in Hertz, Interview style
- Mean F1 of Phoneme 2 in Hertz, Interview style
- Mean F2 of Phoneme 2 in Hertz, Interview style
- Mean F1 of Phoneme 1 in Hertz, Formal Methods style
- Mean F2 of Phoneme 1 in Hertz, Formal Methods style
- Mean F1 of Phoneme 2 in Hertz, Formal Methods style
- Mean F2 of Phoneme 2 in Hertz, Formal Methods style
- The following probabilities, from t-tests:
  - Probability that F1 of Phoneme 1 and F1 of Phoneme 2 in Interview style come from different underlying populations
  - Probability that F2 of Phoneme 1 and F2 of Phoneme 2 in Interview style come from different underlying populations
  - Probability that F1 of Phoneme 1 and F1 of Phoneme 2 in Interview style come from different underlying populations
  - Probability that F2 of Phoneme 1 and F2 of Phoneme 2 in Interview style come from different underlying populations
  - Probability that F1 of Phoneme 1 in Interview style and in Formal Methods style come from different underlying populations
  - Probability that F2 of Phoneme 1 in Interview style and in Formal Methods style come from different underlying populations
  - Probability that F1 of Phoneme 2 in Interview style and in Formal Methods style come from different underlying populations
  - Probability that F2 of Phoneme 2 in Interview style and in Formal Methods style come from different underlying populations

The script was run four times for each speaker: once each for (a) and (e) in Hertz and in

Bark.

```
import pstat
import stats_DHadapted

# Open the lists of coded vowels

print 'File 1 to process:',
tocode1 = raw_input()
coding1 = open(r'C:\\Documents and Settings\\Damien
               Hall\\Desktop\\'+'%s'%(tocode1) +r'.txt','r')
print 'File 2 to process:',
tocode2 = raw_input()
coding2 = open(r'C:\\Documents and Settings\\Damien
               Hall\\Desktop\\'+'%s'%(tocode2) +r'.txt','r')

informant = tocode1[:5]
variable = tocode1[-1]

if tocode1 == tocode2:
    print '\nTHOSE TWO FILES ARE THE SAME!\n\nContinue?
                                        (Enter if so)',
    response = raw_input()
    if response == '': pass
else: pass

#### DEALING WITH THE FIRST FILE #####

# read the individual values in to Python
lines = coding1.readlines()
a_F1s_1 = [] # Initialize a list for F1s of a
a_F2s_1 = [] # Initialise a list for F2s of a
A_F1s_1 = [] # Initialise a list for F1s of A
A_F2s_1 = [] # Initialise a list for F2s of A
a_coords_1 = [] # Initialise a list of tuples which will be
                     the F1 and F2 for each measurement of a
A_coords_1 = [] # Initialise a list of tuples which will be
                     the F1 and F2 for each measurement of A

for i in lines:
    i = i.strip()
    fields = i.split(',')
    F1 = fields[0][-3:]
    F2 = fields[1]
    V = fields[3]
    coord = (F1,F2)

    if int(F1) < 200: pass
```

```python
    elif V == '61':
        a_F1s_1.append(int(F1))
        a_F2s_1.append(int(F2))
        a_coords_1.append(coord)
    elif V == '62':
        A_F1s_1.append(int(F1))
        A_F2s_1.append(int(F2))
        A_coords_1.append(coord)
    elif V == '66':
        a_F1s_1.append(int(F1))
        a_F2s_1.append(int(F2))
        a_coords_1.append(coord)
    elif V == '63':
        A_F1s_1.append(int(F1))
        A_F2s_1.append(int(F2))
        A_coords_1.append(coord)
    elif V == '67':
        A_F1s_1.append(int(F1))
        A_F2s_1.append(int(F2))
        A_coords_1.append(coord)

print tocode1
print '\nF1(a)\tF2(a)\n'
for j in a_coords_1:
    freqs = list(j)
    print freqs[0],'\t',freqs[1]

# Define how to find the mean
mean_F1_a_1 = float(sum(a_F1s_1))/float(len(a_F1s_1)
mean_F2_a_1 = float(sum(a_F2s_1))/float(len(a_F2s_1))

print '\n===================\n\nF1(A)\tF2(A)\n'
for k in A_coords_1:
    freqs = list(k)
    print freqs[0],'\t',freqs[1]

# Define how to find the mean
mean_F1_A_1 = float(sum(A_F1s_1))/float(len(A_F1s_1))
mean_F2_A_1 = float(sum(A_F2s_1))/float(len(A_F2s_1))

# Print that mean
print '\nMeans:'
print 'F1 of a'
print 'F2 of a'
print 'F1 of A'
print 'F2 of A\n'
print round(mean_F1_a_1)
print round(mean_F2_a_1)
print round(mean_F1_A_1)
print round(mean_F2_A_1)
```

```python
print '\n===================\n\n',tocode1,'\tT-TEST F1(a) ~
F1(A)'
stats_DHadapted.lttest_ind_uv(a_F1s_1,A_F1s_1,1,'IV_a_F1','I
V_A_F1')
print '\n\n',tocode1,'\tT-TEST F2(a) ~ F2(A)'
stats_DHadapted.lttest_ind_uv(a_F2s_1,A_F2s_1,1,'IV_a_F2','I
V_A_F2')

#### DEALING WITH THE SECOND FILE ####

lines = coding2.readlines()
a_F1s_2 = [] # Initialize a list for F1s of a
a_F2s_2 = [] # Initialise a list for F2s of a
A_F1s_2 = [] # Initialise a list for F1s of A
A_F2s_2 = [] # Initialise a list for F2s of A
a_coords_2 = [] # Initialise a list of tuples which will be
                        the F1 and F2 for each measurement of a
A_coords_2 = [] # Initialise a list of tuples which will be
                        the F1 and F2 for each measurement of A

for i in lines:
    i = i.strip()
    fields = i.split(',')
    F1 = fields[0][-3:]
    F2 = fields[1]
    V = fields[3]
    coord = (F1,F2)

    if int(F1) < 200: pass
    elif V == '61':
        a_F1s_2.append(int(F1))
        a_F2s_2.append(int(F2))
        a_coords_2.append(coord)
    elif V == '62':
            A_F1s_2.append(int(F1))
            A_F2s_2.append(int(F2))
            A_coords_2.append(coord)
    elif V == '66':
        a_F1s_2.append(int(F1))
        a_F2s_2.append(int(F2))
        a_coords_2.append(coord)
    elif V == '63':
        A_F1s_2.append(int(F1))
        A_F2s_2.append(int(F2))
        A_coords_2.append(coord)
    elif V == '67':
        A_F1s_2.append(int(F1))
        A_F2s_2.append(int(F2))
        A_coords_2.append(coord)

print '===================\n\n',tocode2,'\n'
print '\nF1(a)\tF2(a)\n'
```

```
for j in a_coords_2:
    freqs = list(j)
    print freqs[0],'\t',freqs[1]

# Define how to find the mean
mean_F1_a_2 = float(sum(a_F1s_2))/float(len(a_F1s_2))
mean_F2_a_2 = float(sum(a_F2s_2))/float(len(a_F2s_2))

print '\n===================\n\nF1(A)\tF2(A)\n'
for k in A_coords_2:
    freqs = list(k)
    print freqs[0],'\t',freqs[1]

# Define how to find the mean
mean_F1_A_2 = float(sum(A_F1s_2))/float(len(A_F1s_2))
mean_F2_A_2 = float(sum(A_F2s_2))/float(len(A_F2s_2))

# Print that mean
print '\nMeans:'
print 'F1 of a'
print 'F2 of a'
print 'F1 of A'
print 'F2 of A\n'
print round(mean_F1_a_2)
print round(mean_F2_a_2)
print round(mean_F1_A_2)
print round(mean_F2_A_2)

print '\n===================\n\n',tocode2,'\tT-TEST F1(a) ~
F1(A)'
stats_DHadapted.lttest_ind_uv(a_F1s_2,A_F1s_2,1,'FMs_a_F1','
FMs_A_F1')
print '\n\n',tocode2,'\tT-TEST F2(a) ~ F2(A)'
stats_DHadapted.lttest_ind_uv(a_F2s_2,A_F2s_2,1,'FMs_a_F2','
FMs_A_F2')

#### T-TESTS BETWEEN STYLES #####

print '===================\n\nF1(a) IN INTERVIEWS AND IN
FORMAL METHODS\n'
stats_DHadapted.lttest_ind_uv(a_F1s_1,a_F1s_2,1,'IV_a_F1','F
Ms_a_F1')
print '\nF2(a) IN INTERVIEWS AND IN FORMAL METHODS\n'
stats_DHadapted.lttest_ind_uv(a_F2s_1,a_F2s_2,1,'IV_a_F2','F
Ms_a_F2')
print '\nF1(A) IN INTERVIEWS AND IN FORMAL METHODS\n'
stats_DHadapted.lttest_ind_uv(A_F1s_1,A_F1s_2,1,'IV_A_F1','F
Ms_A_F1')
print '\nF2(A) IN INTERVIEWS AND IN FORMAL METHODS\n'
stats_DHadapted.lttest_ind_uv(A_F2s_1,A_F2s_2,1,'IV_A_F2','F
Ms_A_F2')
```

```
coding1.close() # Close all the open files
coding2.close()
```

B-5   Python module for calculating t-test probabilities assuming unequal variance

between two samples

This Python module is my adaptation of a module written by Gary Strangman (available

at Strangman n.d.) to calculate t-tests assuming equal variance between the samples. My

module is inserted into Strangman's freely-distributed `stats.py` module; it is an input

to script B-4 (it defines the t-test used there).

```
def    lttest_ind_uv    (a,    b,    printit=1,    name1='Samp1',
name2='Samp2', writemode='a'):
    """
(Adaptation  by  Damien  Hall  (2008)  of  Gary  Strangman's
lttest_ind module, which appears above.)
Calculates the t-obtained T-test on TWO INDEPENDENT samples
of scores a and b, assuming unequal variance.  If printit=1,
results are printed to the screen.  If printit='filename',
the  results  are  output  to  'filename'  using  the  given
writemode (default=append).  Returns t-value, and prob.

Usage:
lttest_ind(a,b,printit=0,name1='Samp1',name2='Samp2',writemo
de='a')
Returns: t-value, two-tailed prob
    """
    x1 = mean(a)
    x2 = mean(b)
    v1 = stdev(a)**2
    v2 = stdev(b)**2
    n1 = len(a)
    n2 = len(b)
    dfuv = ((v1/n1)+(v2/n2))**2/(((v1/n1)**2/(n1-
                                  1))+((v2/n2)**2/(n2-1)))
    svaruv = ((v1/n1)+(v2/n2))
    t = (x1-x2)/math.sqrt(svaruv)
    prob = betai(0.5*dfuv,0.5,dfuv/(dfuv+t*t))
```

```
    if printit <> 0:
        statname = 'Independent samples T-test.'
        outputpairedstats(printit,writemode,
                          name1,n1,x1,v1,min(a),max(a),
                          name2,n2,x2,v2,min(b),max(b),
                          statname,t,prob)
    return t,prob
```

Strangman's `stats.py` module includes the following copyright and permission notice,

to be included in all copies and substantial portions of the software:

B-6a   Script for testing integrity of sound-files in Praat

This script selects the first 30 seconds, the last 30 seconds and a random stretch of 30 seconds from a sound file opened as a LongSound in Praat, successively displaying the waveforms for these stretches of recordings and playing them. After each sample is played, the script asks the user whether or not to continue testing the file. This serves as a random spot-check to ensure as far as possible that sound-files are not corrupted before a back-up CD of them is made.

```
name$ = selected$("LongSound")

View

endtime = Get end time
rangestart = 30
rangeend = endtime - 60
nearlyend = endtime - 30
samplestart = randomInteger(rangestart, rangeend)
sampleend = samplestart + 30

editor LongSound 'name$'

    Zoom... 0 30
    Play... 0 30

    pause Continue to next sample from this file? (Don't
                           close the LongSound editor!)

    Zoom... samplestart sampleend
    Play... samplestart sampleend

    pause Continue to next sample from this file? (Don't
                           close the LongSound editor!)

    Zoom... nearlyend endtime
    Play... nearlyend endtime

    pause Stop testing this file?
```

```
endeditor

select LongSound 'name$'
Remove
```

B-6b   Script for testing integrity of batches of sound-files in Praat

This script is an adaptation and extension of script B-6a. The inputs to the script are:

- the location of the files to be tested, which can be on the desktop of the computer, on the Packard Bell hard-drive where my recordings were stored, or on a CD

- the site in which the files to be tested were recorded (Rouen / Darnétal or La Bonneville)

The script assumes the directory structure I created for my files: one folder per site and, within that, one folder per speaker. It cycles through all the sound-files found in the specified speaker-folder, and tests them in the same way as script B-6a does; it then gives the user a message when all the files in the specified folder have been tested.

My script uses a few lines from Mietta Lennes' freely-distributed Praat script open_all_files_in_folder.praat (available at her website, Lennes 2006).

```
form Test all files in directory
    comment Choose the location of the files
    choice Location: 1
        button Desktop
        button Packard Bell
        button CD
    comment If directory is in Packard Bell, choose the
                                    geographical location
    choice Community: 2
```

```
            button Rouen
            button La Bonneville
            button Other
        comment If directory is on desktop or in Packard Bell,
                                            give the name
        sentence Directory
endform

if location$ = "Desktop" and directory$ <> ""
     fulldirectory$ = "C:\Documents and Settings\Damien
                           Hall\Desktop\" + directory$ + "/"
endif
if location$ = "Desktop" and directory$ = ""
     exit Please give the directory name.
endif

if location$ = "Packard Bell"
     if community$ = "Rouen"
          fulldirectory$ =
              "G:\Normandy_soundfiles\PhD_Interviews\Rouen\"
                                        + directory$ + "/"
     endif
     if community$ = "La Bonneville"
          fulldirectory$ =
        "G:\Normandy_soundfiles\PhD_Interviews\LaBonneville\"
                                        + directory$ + "/"
     endif
     if community$ = "Other"
          exit You'll have to test those manually;  I
        haven't had time to tweak the script enough
                                        to do them yet.
     endif
endif

if location$ = "CD"
     fulldirectory$ = "E:\"
endif

Create Strings as file list... list 'fulldirectory$'*
numberOfFiles = Get number of strings
for ifile to numberOfFiles
     filename$ = Get string... ifile
          # You can add some filename extensions that you
                        want to be excluded to the next line.
          if right$ (filename$, 4) <> ".doc" and
               right$ (filename$, 4) <> ".xls" and
               right$ (filename$, 4) <> ".XLS" and
               right$ (filename$, 4) <> ".TXT" and
               right$ (filename$, 4) <> ".txt" and
               right$ (filename$, 4) <> ".dat" and
               right$ (filename$, 4) <> ".DAT"
```

```
                    Open long sound file...
                               'fulldirectory$''filename$'
         endif

         namelength = length(filename$)
         shortnamelength = namelength – 4
         shortfilename$ = left$(filename$, shortnamelength)

         select LongSound 'shortfilename$'
         View

         endtime = Get end time
         rangestart = 30
         rangeend = endtime – 60
         nearlyend = endtime – 30
         samplestart = randomInteger(rangestart, rangeend)
         sampleend = samplestart + 30

         editor LongSound 'shortfilename$'

              Zoom... 0 30
              Play... 0 30

              pause Continue to next sample from this file?
                     (Don't close the LongSound editor!)

              Zoom... samplestart sampleend
              Play... samplestart sampleend

              pause Continue to next sample from this file?
                     (Don't close the LongSound editor!)

              Zoom... nearlyend endtime
              Play... nearlyend endtime

              pause Continue to next file?

         endeditor
         select LongSound 'shortfilename$'
         Remove

     select Strings list
endfor
select Strings list
Remove

echo All files in this directory have been tested!
```

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