

A prototype-theoretic model of Southern French

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ABSTRACT

The features of regional accents are not equally distributed in any speech community: the ideal NORM-speaker produces all of the diatopically marked variants in all situations whereas less traditional speakers are more likely to produce other variants or realize the diatopic variants less frequently. This is reflected in the way that native speakers picture the accent in their mind: they spontaneously imagine the speech of the NORM when they think of a variety; the other versions are also assigned to it, but are considered as less typical. On the basis of a small corpus of Southern French drawn from the project Phonologie du Français Contemporain (PFC), the chapter shows that this phenomenon can adequately be described with the aid of prototype theory.

Introduction¹

By far the best-known French accent (or accent group) is that of Southern France. The features characteristic of this accent have been well described (for an overview see Brun 1931, Séguy 1951 and Taylor 1996): the realization of ‘mute e’ or schwa (we use the latter term henceforward), as in *jeune* [ʒœnə] varying with [ʒœn]); the complementary distribution of mid-vowels, as in *lait* [le] rather than [lɛ]); the pronunciation of the standard nasalized vowel as a sequence of oral vowel and nasal consonantal appendix, as in *bien* [bjɛŋ] as against [bjɛ̃]); the realization of /r/ as an apical trill or tap; the behaviour of final consonants

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(e.g. *moins* [mwẽs] varying with standard [mwẽ]); the reduction of consonant clusters² (e.g. *explosion* [ɛsplɔzjɔ̃] rather than [ɛksplɔzjɔ̃]); and the so-called ‘singing’ prosody.

Previous research has shown that these features are not equally distributed among Southern French speakers (see e.g. Durand, Slater and Wise 1987, Taylor 1996, Armstrong and Unsworth 1999, Binisti and Gasquet-Cyrus 2003). Whereas ‘NORMs’ (non-mobile old rural males) nearly always produce the traditional variants, younger people, women, townspeople and migrants are more likely to produce other variants (e.g. /r/ as an uvular fricative, nasalized vowels) or to realize the Southern variants less frequently (e.g. pronunciation of fewer schwas). But even if a particular idiolect does not feature all variants or if the typical variants occur less frequently, the speakers are nevertheless recognized as speakers of the Southern accent.

The aim of this chapter is to analyze this phenomenon with the aid of prototype theory, which was developed in cognitive psychology (Rosch 1975). Varieties are considered as prototypical³ representations the minds of speakers, which contain the NORM and his speech in the centre and less traditional speakers and their variants more on the periphery or in the transitional area to another variety

The empirical bases of the study described here are two surveys in the *département* of Aveyron carried out in the framework of the *Phonologie du Français Contemporain* (PFC) project (www.projet-pfc.net; Durand, Laks and Lyche 2002, Durand, Laks and Lyche 2005). One survey location is Rodez, the capital town of the Aveyron with about 30,000 inhabitants, and second is Salles-Curan, a village of 1140 inhabitants located about 30 kilometres from Rodez. The fieldwork was carried out in 2002 by the author among her own family and friends (12 informants) in Salles-Curan and in the network of her collaborator Jacques Durand in Rodez (8 informants). At the time of the survey, the informants were aged between 16 and 81; there were 11 women and 9 men in different occupations (farmers, artisans, salesmen, etc.). For each informant, four different types of data were collected: an informal discussion, a formal interview, the reading of a text and of a word list. In a perceptual experiment carried out in 2005, 10 of these 20 idiolects were presented to about 200 students from north-central

² Of course, reduction of consonant clusters is not an exclusive characteristic of Southern French, but is also common in working-class Parisian French for example.

³ It is important to distinguish between *prototypes* and *stereotypes* of accents: both are mental models which relate bundles of linguistic features to social features. However, a *prototype* is the best (maybe fictitious) example of a category, containing all its attributes. A *stereotype* in contrast is a consciously distorted caricature of the accent, characterized by the overgeneralization of a few features. It is charged with emotions, usually negative ones. Whereas prototypes are based on concrete perceptions of speech, stereotypes have become independent of it and are also widespread amongst people without any contact with the accent.

France (Île-de-France and Orléans). The students were asked to rank the idiolects by degree of accent. This perceptual ranking is the starting point of the study.

The chapter is structured as follows: firstly we set out the theoretical framework, followed by a presentation of the methodology and the perceptual speaker ranking on which the study is based. This is followed by a corpus analysis of the following variables: /r/, schwa, nasal vowels, mid-vowels, consonant clusters and final consonants. Finally, the resulting prototype-theoretic model of Southern French will be presented and discussed.

The significance of prototype theory for the linguistics of varieties

Varieties as speakers' representations – arguments for a cognitive linguistics of varieties

It is insufficient to describe linguistic variation as being composed essentially of a set of correlating variants. Rather, one commonly speaks of *dialects*, *sociolects*, *registers* or – more generally – *varieties*. But what are *varieties*? The quest for homogenous and clearly delimitable entities quickly leads to Bloch's term *idiolect* (Bloch 1948). However, the challenge is not to create a wholly new sociolinguistic concept, but to capture more precisely a phenomenon already existing in the minds of speakers (and linguists) and to operationalize it for linguistic research. This idea was formulated by Gauchat in 1903 with respect to dialects (see Labov 1972b for African-American Vernacular English):

It is, furthermore, an erroneous way of going about things to set up a definition and only afterwards seek to find out whether such a thing exists. This, however, has been done with dialects. It has been said that a dialect must have characteristic features that do not appear anywhere else, and that it must be clearly distinguishable from neighbouring dialects by the pervasive and specifically located co-occurrence of several (at least two) phonetic boundaries. Within the dialect, unclouded phonetic unity must prevail. Since this does not occur, it has been concluded, there are no dialects. (...) Nevertheless, all speakers of a dialect do have something in common that makes them *recognizable*, something that *evokes* in them, when they meet abroad, *a sense of home*.⁴ (Gauchat 1903: 396; translation and emphasis E.P.)

⁴ „Ein unrichtiges Verfahren ist es ferner, wenn man zuerst eine Definition aufstellt und erst nachher sucht, ob so ein Ding vorhanden sei. Das hat man aber tatsächlich mit den Dialekten getan. Man hat gesagt, ein Dialekt müsse charakteristische Merkmale enthalten, die sonst nirgends vorkommen, er müsse von den Nachbardialekten durch ein an ganz bestimmten Orten durchgehendes Zusammenfallen mehrerer (wenigstens zweier) Lautgrenzen deutlich geschieden sein. Innerhalb des Dialekts müsse eine ungetrübte lautliche Einheit herrschen. Da dies nicht

Since we can observe (continuous) *variation* on the ‘objective’ level of linguistic facts, *varieties* only exist in speakers’ cognitive representations. In other words: varieties are *per se* ‘subjective’ and belong therefore to folk categories (Stehl 1988, Hambye and Simon 2004; for an overview on folk linguistics see Preston 1999, Preston and Niedzielski 2000).

The prototype-based structure of cognitive categories – arguments for a perceptual approach

If we consider varieties as cognitive categories, they should resemble other cognitive categories with regard to how they are constituted and how they work. The general discussion in psychology of how people recognize what they see, hear, feel, etc. (i.e. how they match concrete objects with mental patterns) shows that there seems to be a combination of two perceptual strategies: elementary (analytic) perception of single features and (synthetic) *gestalt* perception of the whole object. The latter can be imagined on the basis of abstract prototypes as well as of a bundle of more specific exemplars (Anderson 1996).

In linguistics, the best-known approach following this idea comes from the field of semantics.⁵ The well-known examples of birds (Rosch 1973) and cups (Labov 1973) have shown that cognitive categories are not homogenous entities with clear-cut boundaries, but that they rather consist of a bundle of more or less prototypical representatives. When we think of a bird, we primarily think of a sparrow, but also a chicken or a parrot will be recognized as a bird, albeit not as typical ones, and an ostrich or a penguin as very peripheral members of the category. The prototype possesses all the typical features of the category (e.g. flight, feathers, egg-laying). The transition to the margins can have an implicational order; though there is no exclusion criterion, but rather family resemblances, so that a bird which cannot fly, which has only one foot, etc. is also recognized as a bird – by its *gestalt*.

Another well-known case of prototype-based categories can be found in the phonetic area. Grieser and Kuhl 1989 speak explicitly of “speech-sound prototypes”: the “perceptual magnet effect” discovered for vowels (Kuhl 1991) means that acoustically equidistant sounds are perceived as equal or very similar when they are close to the prototype but as quite distinct when they occur along the continuum in between the prototypes; in the case of obstruents, the boundaries are quite clear-cut (Liberman et al. 1957). Another example is the mysterious

vorkomme, gebe es keine Dialekte. (...) Trotzdem besitzen alle Angehörigen eines Dialekts etwas Gemeinschaftliches, an dem man sie *erkennt*, das in ihnen, wenn sie in der Fremde zusammentreffen, ein freudiges *Heimatgefühl weckt*.“

⁵ Rosch is indeed so careful as to consider prototypes only as an empirical result, but does not postulate that mental representations are structured as such.

unity of /r/ despite its diverse realizations from the apical trill [r] to the uvular voiceless fricative [χ], which has also been explained by family resemblances (Lindau 1985).

On the word level, Bühler 1931 and Trubetzkoy 1939 recognized the principle of *gestalt* perception (see also Krefeld 1999), an idea corroborated by perceptual phonetics (Barry 1980). Finally, Bybee 2001 has introduced exemplar models for word representations, which by their bundles of exemplars with different lexical strength are comparable to the prototype concept. Other linguists have even adopted it for technical terms which have no relation to perception: *transitivity, agent, subject, word class, diglossia*, etc. (Koch 1998).

Dialectology, in particular, has been occupied from its origins by the problem of delimitating dialect boundaries, especially in the *Romania continua* (cf. the citation from Gauchat 1903 above). A prototype-like solution has been proposed by Séguy 1974 in his *Atlas Linguistique de la Gascogne* (ALG). After the first five volumes, which present as is customary one variable in each map, the sixth volume of the ALG contains a dialectometric synthesis from a subset of these features (diachronic phonetics and morphosyntax): a calculation of the linguistic distance between pairs of neighbouring survey locations. The result is the ‘gradient field of gascognity’. This sort of description suggests the abandoning of the concept of clear-cut dialect boundaries in favour of concentrations of dialectal features at some extreme points, which gradually decrease in intensity. This approach has been improved by Goebel (1982, 1984, etc.), who utilizes diverse methods of numerical classification and sophisticated techniques of visualization (synoptic maps, dendrograms, etc.).

Neither Séguy nor Goebel claim that their data can be used to model the entities we call *varieties*. Their data is therefore insufficient for this goal: Goebel’s software does not produce a unique classification, but permits the definition of arbitrary dialectal centres and then shows to what extent other survey locations are similar to it. Séguy for his part only takes into account features by which Gascon differs from Occitan, but not from Aragonese or Catalan, which would have resulted in other gradient fields. The crucial problem is that production data alone do not permit us to choose one classification out of all possible ones; what we need for this purpose is additional perceptual data.

It is worth mentioning that the utility of prototype theory has been called into question in the domain of semantics because it reflects the folk taxonomy of referents (encyclopaedic knowledge) rather than the purely linguistic *signifies* (which differ from one language to another). The application to linguistic terminology is considered as problematic, too, because

scientific terms are considered as being ‘precise’,⁶ i.e. discrete categories defined by a set of features, which do not necessarily have a corresponding concept in speakers’ minds (Koch 1998). But these objections are not valid for the analysis of varieties: their representations are not linguistic in the strict sense, but rather belong to the encyclopaedic knowledge *about* language.

Methodology

General remarks

It is self-evident that varieties cannot be directly observed. Like entities in the *langue*, they must be abstracted from productive and perceptual data. Moreover, a holistic classification of the speakers is not a satisfying result; the linguist’s interest is rather to determine the role of single variants; which are more salient than others; and whether there an implicational ordering. The answers to these questions permit us to construct a model of the variety in question. Subsequent to the strictly linguistic analysis, we can also examine varieties from a sociological point of view, asking which social features are associated with the centre of the varieties and which ones with the margins.

In what follows, I shall try to apply this theory to the empirical data from Southern French described above. The analysis will focus on the questions of what practical problems we are faced with in the implementation, whether the resulting model of the variety is plausible, and whether it is sufficiently complex.

The perceptual basis of the study

The starting point of the prototypical modelling of Southern French is a perceptual ranking of 10 of the 20 speakers of the author’s Aveyron sample (Pustka 2007).⁷ It is based on the recorded reading of a sentence which was extracted from the text *Le village de Beaulieu* proposed by the PFC project (duration 12–31 seconds):

Jusqu’ici, les seuls titres de gloire de Beaulieu étaient son vin blanc sec, ses chemises en soie, un champion local de course à pied (Louis Garret), quatrième aux jeux olympiques de Berlin en 1936, et plus récemment, son usine de pâtes italiennes.

⁶ Even if a notion is ‘precise’, this does not mean that the classification of the referents is simple and unambiguous.

⁷ Another perceptual ranking of the same Aveyronnais speakers is presented in Sobotta 2006. The basis is an experiment with discrete rather than continuous categories.

In order to attribute to each sample a degree of accentedness, an intuitive visual method was applied, requiring the listeners to draw a line on a bar representing 0% to 100% of ‘Aveyron-ness’.

The perceptual ordering of the speakers is represented in table 1, calculating the average estimation of some 200 listeners from Paris and Orléans (for more details on the experiment and its results, see Pustka 2007). It is important to note that the basis for this prototype-theoretic modelling is not self-perception by Southerners, but hetero-perception by people from the north-central France who are convinced that they speak without any accent.

Table 1: Perceptual ranking of the speakers

Degree of accentedness	Speaker	Age	Sex	Education	Profession	L1
92%	12bnf1	76	M	École primaire	sawyer	Occitan
92%	12blv1	64	F	Certificat d'Études	peasant	French
85%	12atp1	69	F	Certificat d'Études	secretary	French
84%	12bbr1	54	M	Collège technique	carpenter	French
83%	12bma1	22	F	Bac+2	saleswoman	French
77%	12als1	28	F	Bac+2	saleswoman	French
54%	12acr1	27	F	Bac+2	worker	French
51%	12aja1	65	F	Seconde	saleswoman	French
41%	12bec1	20	M	Terminale	student	French
39%	12brm1	16	M	Terminale	student	French

The rating of accentedness tallies in the main with that of other well-known sociolinguistic studies (see e.g. Labov 1972a): older people have stronger accents than younger people, rural persons more so than townspeople, uneducated more so than well-educated, etc. But the crucial difference is that the marked character of the variants has not been left to the intuition of the linguist, but empirically determined by a perceptual

experiment. One approach is to correlate these percentages with the linguistic characteristics of the stimuli in order to show the impact of each feature (Pustka 2007).

But this limitation on the data of the experimental method systematically excludes the analysis of certain types of variables: firstly quantitative variables, which do not occur frequently enough in the stimuli (e.g. the percentage of realized schwa or nasal appendices), secondly rare variables (e.g. consonant clusters, final consonants). On the other hand, it is impossible for practical reasons to run perceptual experiments with sufficiently long stimuli (e.g. 20 minutes instead of 20 seconds). Therefore, I shall present not only the behaviour of the variables in the stimuli, but also in the 20 minutes of spontaneous speech (interview style) from the corpus.

Results of the analysis

Realization of /r/

The realization of /r/ as an apical tap or trill is disappearing in Southern French. In the corpus analyzed, only the oldest rural person possesses this feature: 12bnf1, a sawyer born in 1926 (see table 2). He grew up on an isolated farm, has only primary education and is the only speaker of the ten who speaks Occitan as his first language. He is, therefore, not a speaker of regional French in the strict sense, but of the Francitan interlanguage (Boyer 1991: 151). Furthermore, he is the only speaker who confuses /r/ and /l/, another stereotypical feature (e.g. *répercute* as [repelkytə]).

All the other speakers realize a uvular fricative, devoiced after voiceless obstruents (e.g. *quatre* [katʁə̥] and word-finally (e.g. *fêtarde* [fetaʁ]; see also Binisti and Gasquet-Cyrus 2003). The popular representation of the Southerner as a speaker who uses apical trills is thus, to say the least, out of date; the old prototype is currently becoming a stereotype, not reflected in actual production and perception.

Nasal appendices

As previously mentioned, Southern French is characterized by the pronunciation of nasalized vowels with a consonantal appendix which is assimilated to the following consonant⁸. This variable shows considerable inter-speaker variation: whereas the final variant is now usually

⁸ The place of articulation is homorganic with the following consonant: [n] before [t] and [d] (e.g. *chanter* [ʃante]), [m] before [p] and [b] (e.g. *lampe* [lampə]), [ŋ] before [k] and [g] (e.g. *banque* [baŋkə]). The assimilation frequency increases with the degree of syntactic cohesion (Brun 1931, Taylor 1996).

[ŋ], the traditional final variant in Aveyron is an apical [n], which in the present corpus was consistently realized only by the oldest rural male speaker (12bnf1; see table 3). This variant appears formerly to have been a regional shibboleth. Séguy notes: “Il est de l’Aveyronn, où on lave le linge sans savonn” (Séguy 1951: 34). Nowadays, the final appendix is levelled to [ŋ] in all Southern France where no consonant follows. In addition, there exists a bilabial variant [m] (Taylor 1996), realized by one young saleswoman (12bma1) and a student (12brm1). The pronunciation of a denasalized vowel without appendix (e.g. *bien* as [bjɛ]) can also be observed, mainly in the speech of these two speakers.

Another important sociolinguistic variable is the frequency of nasal appendices. This variable is highly correlated ($R^2=0.64$) to the degree of accentedness (see table 2).

Table 2: Nasal appendices

Degree of accentedness	Speaker	Quality of the nasal appendix	Quantity of nasal appendices (stimulus)	Quantity of nasal appendices (spontaneous speech)
92%	12bnf1	[n]	9/10	281/335 = 84%
92%	12blv1	[ŋ]	9/10	237/358 = 66%
85%	12atp1		9/10	340/551 = 62%
84%	12bbr1		10/10	255/381 = 67%
83%	12bma1		6/10	209/424 = 49%
77%	12als1		9/10	305/604 = 50%
54%	12acr1		6/10	169/605 = 28%
51%	12aja1		5/10	166/443 = 37%
41%	12bec1		4/10	109/436 = 25%
39%	12brm1		4/10	282/558 = 50%

Schwa

Traditionally, nearly all schwas are pronounced in Southern French, as is expressed in the famous phrase of Auguste Brun: “L’e dit *muet* n’est pas muet” (Brun 1931: 31). In recent research, however, linguists have discovered that young people, women, town-dwellers and persons with lower local identity are beginning to elide schwas to some degree, particularly in

word-final contexts before a consonant (e.g. *jeun(e)*), in clitics (e.g. *j(e) suis*) and word-medially (e.g. *ach(e)ter*). This has been interpreted as a change in progress towards Parisian French (Durand, Slater and Wise 1987, Armstrong and Unsworth 1999).⁹

The present analysis of schwa is based on the PFC coding system.¹⁰ We can observe substantial variation among the Aveyronnais speakers (see table 3): in all contexts combined, the deletion rate lies between 11% in the case of the old sawyer (12bnf1) and 45% in the case of two young women (12acr1 and 12bma). At the end of polysyllabic words and before a single consonant, the most frequent context in the stimulus, the deletion rate ranges more widely, from 3% (12bnf1) to 65% (12acr1).

Table 3: Schwa-deletion rates

Degree of accentedness	Speaker	Stimulus: schwa before C	Spontaneous speech: schwa before C	Spontaneous speech: all contexts
92%	12bnf1	1/5	3%	11%
92%	12blv1	0/5	10%	19%
85%	12atp1	2/5	10%	17%
84%	12bbr1	1/5	12%	17%
83%	12bma1	1/5	60%	45%
77%	12als1	2/5	30%	24%
54%	12acr1	1/5	65%	45%
51%	12aja1	3/5	61%	41%
41%	12bec1	2/5	47%	37%
39%	12brm1	1/5	39%	30%

The speaker with the lowest deletion rates is again the oldest rural male speaker (12bnf1). The speakers with intermediate deletion rates are from the older or middle-aged age ranges, and the highest deletion rates can be found amongst the youngest. But one woman does not correspond to this age-continuum: 12aja1 (*1937) has a deletion rate of 41%,

⁹ In Southern France, not only does the deletion of schwa function as a social marker, but also its quality: the variants [ə], [ɐ] and [ʌ] indicate lower social class. The realization [ʌ] appears especially in phrase-final context and from native speakers of Occitan (Durand, Slater and Wise 1987, Taylor 1996).

¹⁰ In the following presentation, I shall concentrate on the differences between the speakers and neglect the phonotactic and lexical contexts, which play an important role but have been analyzed previously (Pustka 2007).

whereas the average rate for this age is about 18%. This could be explained by the fact that the informant, now retired, comes from a family that owned a restaurant, and that she worked as a saleswoman (fishmonger). For this reason, she had a great deal more contact than anyone else in the corpus with speakers exterior to the region throughout her working life, particularly with tourists and new residents from other regions.¹¹

Amongst young people, the differences are also considerable. The lowest deletion rate can be seen in the case of a young woman (12als1: 24%) who owns a tiling shop on the outskirts of Rodez. She is proud to be a *Ruthénoise* and would not be willing to leave her city. The maintenance of schwa could thus be explained by her strong sense of local identity. On the other hand, the highest deletion rates among young people can be found in the case of two women who do not originate from the region: one of Portuguese origin (12bma1) and another, who has frequently moved within the *département* (12acr1). The two are employed as unskilled workers, in spite of their qualifications as salesperson and bioengineering assistant, respectively.

We can conclude that two factors contribute to a more standardized pronunciation: the intensity of contact with Northern French and a weaker sense of local identity.

Mid-vowels

Southern French shows no phonological opposition between open-mid and close-mid vowels; they are allophones in complementary distribution, traditionally called the ‘law of position’. The close-mid variants [e], [ø] and [o] appear in open syllables (e.g. *mais* [me], *noeud* [nø], *mot* [mo]), the open-mid variants [ɛ], [œ] et [ɔ] in closed syllables (e.g. *mer* [mɛʁ], *meurt* [mœʁ], *mort* [mɔʁ]), as well as in open syllables followed by a syllable having a schwa as nucleus (e.g. *mère* [mɛʁə], *meure* [mœʁə], *more* [mɔʁə]) (Brun 1931, Binisti/Gasquet-Cyrus 2003).

The corpus shows the following results. Among the minimal pairs in the PFC word-list (*épais/épée*, *jeune/jeûne*, *beauté/botté*), only one of the ten speakers produced an opposition (12atp1: *épais/épée*), which can perhaps be explained by the particular attention paid to speech in this task. In the rest of the word list and in the text, however, there is no exception.

Accordingly, it is quite surprising to find some exceptions in spontaneous speech, which statistically carry no weight if we discount the case of *ouais*, exclusively pronounced

¹¹ Among the other informants in the corpus not considered in the perceptual analysis, there is a second woman of the same background: 12bmv1 (*1934), who has a 32% schwa-deletion rate and who also comes from a family owning a restaurant, and who at one time owned a grocery.

[wɛ]. These exceptions seem to be randomly distributed, without any social conditioning. In general, speakers who have lived in Northern France for a long time start to adopt the phonological opposition between mid-open and mid-closed vowels only when they have already abandoned final schwas and nasal appendices (Sobotta 2006).

Final post-consonantal liquids

In traditional Southern French, there is no deletion of liquids in final position after obstruents (e.g. *peut-être* [pøtɛt]), because the liquid is supported by a final schwa (e.g. [pøtɛtɤ]). This conservative pronunciation can be found in the case of four speakers from the old and middle age ranges: 12bnf1, 12blv1, 12atp1, 12bbr1 (see table 5). The highest deletion rates are found in two young women from Rodez, and in 12aja1, the former fishmonger, who also deletes a significant number of schwas. The social change appears therefore to be proceeding along two axes: old–young and rural–urban. In the reading passage, no speaker elided the /r/ in *titres*.

Other consonant clusters

In other contexts, the reduction of consonant clusters is particularly frequent in Southern French: final /kt/ is realized [k] (e.g. in *exact, correct, direct, infect* and *contact*) and internal /ksp/ [sp] (e.g. in *exprimer* and *expliquer*). Whereas Brun 1931 considered these pronunciations to be as socially unmarked, Durand and TARRIER 2003 observed them mainly among older people. Since consonant clusters are relatively rare in spontaneous speech (the stimulus itself contains no consonant clusters) and since these rare occurrences are not comparable, we shall consider the reading of the PFC word list and text for this variable (see table 4).

Table 4: Reduction of consonant clusters

Degree of Accented-ness	Speaker	Age	Word list						Text					Total
			<i>infect</i>	<i>intact</i>	<i>explosion</i>	<i>extraordinaire</i>	<i>ex-femme</i>	<i>ex-mari</i>	<i>contact</i>	<i>explosion</i>	<i>Express</i>	<i>Ouest Liberté</i>	<i>Marc Blanc</i>	
92%	12bnf1	76	-	-	+	+	-	-	+	+	+	-	-	5/11

92%	12blv1	64	+	-	+	+	-	-	+	+	+	+	+	8/11
85%	12atp1	69	-	-	-	-	-	-	-	-	-	-	-	0/11
84%	12bbr1	54	+	-	+	+	-	-	+	+	+	+	-	7/11
83%	12bma1	22	-	+	-	-	-	-	-	-	-	-	-	1/11
77%	12als1	28	-	-	-	-	-	-	-	-	-	-	-	0/11
54%	12acr1	27	-	-	-	-	-	-	-	-	-	-	-	0/11
51%	12aja1	65	-	-	+	-	-	-	-	+	+	-	-	3/11
41%	12bec1	20	-	-	-	-	-	-	-	-	-	-	-	0/11
39%	12brm1	16	-	-	-	-	-	-	-	-	-	-	-	0/11

Table 4 shows that the reductions appear almost exclusively among the middle and older rural age-ranges. Among the five interviewees of the younger generation, we see only one reduction (*intact* by 12bma1).

Final consonants

The realization or non-realization of final consonants does not apply to the same lexical items in Parisian and in Southern French. Brun 1931 cites the words *cours*, *mœurs*, *vers*, *plus*, *alors*, *lors*, *avis*, *jadis*, *eux*, *ceux*, *gens*, *moins*, *six*, *dix*, *porc*, *croc*, *tronc* and *escroc*, in which the final consonant is pronounced in Marseille but not in Paris. Séguy 1951 notes for Toulouse among others *gens*, *moins*, *plus*, *tandis*, *ceux*, *aspect*, *respect*, *août* and *nombri*.

In the present corpus, only the oldest rural man (12bnf1) realized *ceux* [sø̃s] and *Salles-Curan* [saleskyran] in spontaneous speech (the relevant consonants are underlined in the transcriptions), while in the reading stimulus, two other speakers (12blv1 and 12bec1) pronounce the proper noun *Garret* with a final [t]. On the other hand, some words have a liaison consonant which in Parisian French is fixed: the /k/ of *avec* (12bnf1, 12blv1, 12bbr1) and the /n/ of *Tarn* (12bnf1, 12bbr1) are pronounced by some speakers only before a vowel (see also Séguy 1951).

Summary and discussion

Table 5 recapitulates the results of the previous section and ranks perceived accentedness against linguistic behaviour of the speakers. The shades of grey used in the table refer to the

linguistic and social variants which correspond to prototypical Southern French and its speakers.

Table 5: Scale of global accentedness

Degree of accentedness	Speaker	Linguistic variables									Social variables				
		1	2	3	4	5	6	7	8	9	a	b	c	d	e
92%	12bnf1	[r]	[n]	2	2	45	11	84	0	+	O	76	c	m	M
92%	12blv1	[ʁ]	[ŋ]	0	1	72	19	66	0	+	F	64	c	m	F
85%	12atp1	[ʁ]	[ŋ]	0	0	0	17	62	0	+	F	69	t	nm	F
84%	12bbr1	[ʁ]	[ŋ]	0	2	64	17	67	0	+	F	54	c	m	M
83%	12bma1	[ʁ]	[ŋ]	0	0	9	45	49	6	+	F	22	c	nm	F
77%	12als1	[ʁ]	[ŋ]	0	0	0	24	50	11	+	F	28	t	nm	F
54%	12acr1	[ʁ]	[ŋ]	0	0	0	45	28	21	+	F	27	t	m	F
51%	12aja1	[ʁ]	[ŋ]	0	0	27	41	37	19	+	F	65	t	nm	F
41%	12bec1	[ʁ]	[ŋ]	0	0	0	37	25	3	+	F	20	c	---	M
39%	12brm1	[ʁ]	[ŋ]	0	0	0	30	50	3	+	F	16	c	---	M

Legend:

Linguistic variables

- 1 Realization of /r/
- 2 Quality of the final nasal appendix
- 3 Pronunciation of final consonants
- 4 Liaison consonant in *ave(c)*, *Tar(n)*
- 5 Reduction of consonant clusters (in %)
- 6 Schwa-deletion-rate (in %)
- 7 Quantity of nasal appendices (in %)
- 8 Liquid-deletion-rate (in %)
- 9 'Law of position'

Social variables

- a L1
- b Age
- c town (t)/country (c)
- d Profession: n/m = non/manual
- e Sex

The table shows that some variants are fairly closely limited to the speaker ranked as having the most marked accent (12bnf1), namely the apical trill, the realization of the nasal appendix as [n] and the pronunciation of final consonants absent in standard French. For other features, we can observe a substantial difference between the four informants perceived as speaking with the strongest accent (the oldest) and the others: the deletion of consonant clusters, the pronunciation of liaison consonants in *ave(c)* and *Tar(n)* as well as the behaviour of schwa and post-consonantal final liquids. As far as mid-vowels are concerned, all speakers show a complementary distribution following the 'law of position'. Furthermore, the analysis in Pustka 2007 has shown that the Parisian and the Aveyronnais varieties are clearly distinct if we consider non-mobile speakers; only migrants fill the transitional area. Thus, the accent of Southern France is not a clear-cut class which can be defined as a bundle of necessary and sufficient features, but a graded category grouped around a prototype.

The data from these 10 speakers suggest that the degree of prototypicality corresponds more or less to an implicational ordering: speakers who realize apical trills, [n] as nasal appendices and final consonants which are mute in the 'standard', also reduce consonantal clusters and realize a very high percentage of schwas and nasal appendices. Speakers realizing certain schwas and nasal appendices have a vowel system with only three distinguishable degrees of aperture. There are however some inconsistencies: the speaker 12atp1 has a mean average rate of 85% of perceived accentedness, but never reduces consonant clusters; 12bma1, 12acr1 and 12aja1 have the highest schwa deletion rates, but are not considered to have the least pronounced accent, etc.

It is difficult to say whether the perception of the accent is based on discrete elements or on a holistic impression. Different statistical methods show that a single feature (e.g. nasal appendices) is sufficient to explain to a high degree (over 85%) the judgements of accentedness. In fact, the variables are highly interdependent. Because of this redundancy, one cannot postulate causality between all productive and perceptual data: for example, the Aveyronnais appendix [n] seems to be completely unknown in Paris. The fact that some speakers behave quite untypically with regard to some variables (e.g. 12atpa1 for consonant clusters) argues a holistic perception (or a more complex perception than a one-dimensional scale of accentedness).

We can also note that no speaker in the corpus actually embodies the prototype of Southern French accent: the most typical speaker, 12bnf1, is neither ranked as an Aveyronnais at 100%, nor does he consistently realize all Southern features (e.g. only 5 out of 11 consonant clusters reduced, as many as 11% of schwas deleted). (Strictly speaking, this

speaker is not even a speaker of the Southern regional French, but rather of the Francitan interlanguage). The centre of the prototype, therefore, does not correspond to an existing idiolect, but should rather be considered an abstract ideal type of a linguistic system, corresponding to an abstract, ideal type of speaker, the NORM.

It should be emphasized, then, that this *prototype* must not be confused with a *stereotype* (see also footnote 3). It constitutes certainly an *idealized* combination of the typical features, but not a distorted caricature, characterized by the overgeneralization of only a few features. In this sense, the pronunciation of 100% of nasal appendices is a property of the prototype, whereas the stereotype goes yet further in also including a plosive consonant: [ŋg] (Pustka 2007). With respect to other variants, the distinction is less clear: at the moment, the pronunciation of apical trills still belongs to the prototype of Southern French, but when the last speakers of this variant have disappeared, it will be a characteristic only of the stereotype. Table 5 shows some other inconsistencies in need of explanation. Some speakers are evaluated as speaking with (nearly) the same degree of accent, but differ considerably in their linguistic behaviour. This is the case for 12bnf1 and 12blv1 (92% accentedness score) and for 12bbr1 and 12bma1 (84% and 83%). To explain this phenomenon fully, one would have to take into consideration variables that are beyond the scope of this analysis, prosody in particular. Another possible explanation could be the interaction between the estimated socio-demographic variables and linguistic behaviour. In fact, in two cases, women are ranked as having a stronger accent than the linguistic analysis suggests. It is possible that women are expected to speak with a less marked regional accent, and that the same accent is thus perceived as stronger when the speaker is female.

Social variables

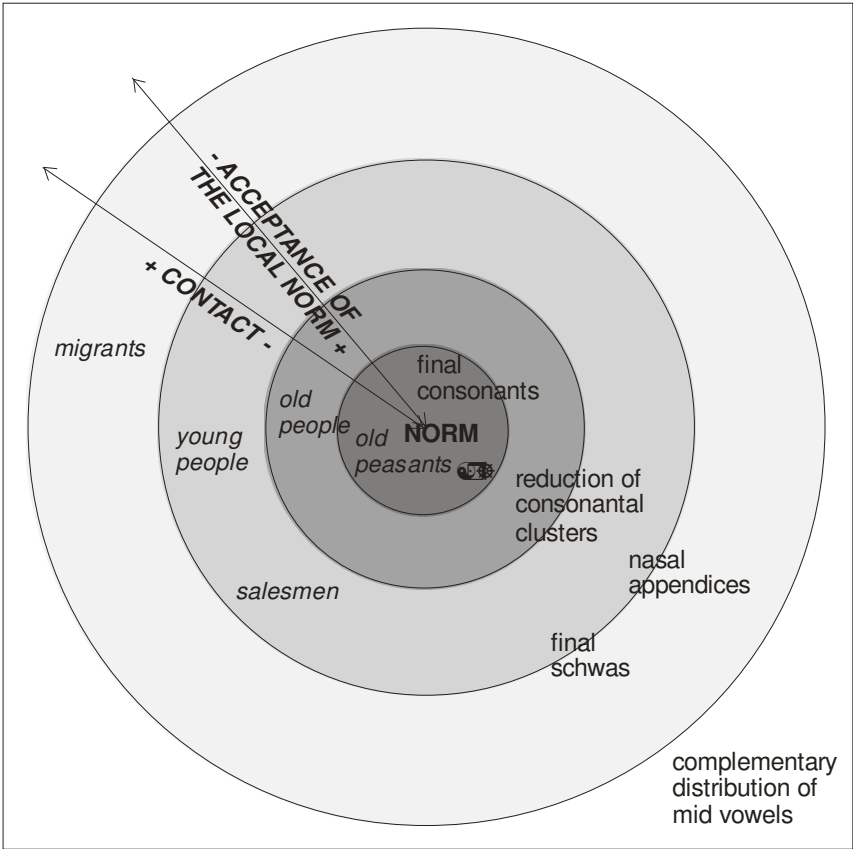
Independently of the effect just described we can observe important correlations between the social characteristics of the speakers and the degree to which they are perceived to speak with an accent (see figure 5). To summarize, older people are perceived as having a stronger accent than younger (except 12aja1, who – as a saleswoman – has more contact with foreigners), people living in the countryside more than townspeople, farmers and craftsmen more than salespeople and workers and speakers whose first language is Occitan more than native speakers of French. Accordingly, the results corroborate the findings of previous sociolinguistic research which considers only productive data and the social characteristic of the speakers.

It is evident that these variables are strongly interdependent and not directly the cause of the linguistic behaviour. The previous analyses have shown that we should model accentedness (at least) on two axes, age and local identity, which can be explained by two factors, already discussed in previous sociolinguistic research (see e.g. Labov 1972a): contact or lack of contact with the local variety (which limits the possibilities of accommodation to other varieties), and prestige (which filters these possibilities), i.e. acceptance of the local norm. In fact, accent decreases the more speakers are in contact with other varieties (townsmen, salesmen, young people, women) and the more they consider them as prestigious (young people, women).

The prototype-theoretic model of Southern French accent

The linguistic and sociological modelling of the accent of Southern France is summarized in figure 1.

Figure 1: The prototype-based structure of Southern French accent



Conclusion

The case of the Southern French accent shows that varieties, as cognitive representations of marked speech associated with a social group, are internally heterogeneous entities without clear-cut boundaries. They are kept together by the central prototype, the speech of the more or less fictitious NORM (a realistic combination of all typical variants) and characterized by a decreasing degree of prototypicality, which is not necessarily strictly implicational.

We need to ask ourselves, in that case, whether the reduction of the complex representations of the hearers to a single perceptual dimension (degree of accentedness) is adequate. On the one hand, the decrease of prototypicality corresponds to distinct dimensions (age, town/country, social status, etc.), which are to a certain degree differentiated by the hearers. On the other hand, hearers feel able to rank persons on a one-dimensional scale of accentedness.

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