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Modelling stylistic variation in threatened and under-documented languages¹

Abstract

The centrality of style is uncontested in sociolinguistics: it is an essential construct in the study of linguistic variation and change in the speech community. This is not the case in the language-obsolescence literature, where stylistic variation among endangered-language speakers is described as an ephemeral, or "marginal" resource, and where speakers exhibiting "stylistic shrinkage" become "monostylistic". This argument is invoked in variationist theory too, where "monostylism" is presented as support for the tenets of Audience Design (Bell 1984). This article reports on a study that adopts variationist methods in a context of severe language endangerment. Evidence from two linguistic variables in Francoprovençal demonstrates the presence of socially meaningful stylistic variation among the last generation of fluent speakers, offering counter-evidence to classic claims. This evidence is used to argue that accounts of stylistic variation in language obsolescence are not sufficiently nuanced and should be reconsidered in light of recent research.

Keywords:

variation and change, language obsolescence, language death, language documentation, style shifting, Francoprovençal

1. Introduction

In their seminal volume on approaches to style in sociolinguistics, Rickford and Eckert open with an uncontested claim: "Style is a pivotal construct in the study of sociolinguistic variation" (2001: 1). While sociolinguistics has come to acknowledge many different approaches to style, variationist methods are usually invoked to address central questions relating to language change and/or speakers' own internalisations of broader social distributions of variation (see Eckert 2012). This is true both of monolingual speech communities (those communities that are most often the focus of variationist research) and multilingual speech communities, given the generally held view that the processes triggering style shifting in monolingual speakers are the same as those operating on multilingual speakers (e.g. Gal 1978: 67-9 *inter alia*). The "centrality of style" (Rickford and Eckert 2001: 1) in sociolinguistic theory is therefore in of

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itself noncontroversial. Conversely, theories of style shifting sit largely peripherally in much of the sociolinguistic research associated with **language obsolescence**, where style is instead understood in ephemeral terms as a declining – even "marginal" (Hoeningwald 1989: 348) – resource.² As Wolfram (2002: 776) notes, "one of the most often-cited traits of obsolescing language varieties is their contraction in the contexts or domains of use [...]". With this functional restriction in language use (or loss of language domains), language-death theory predicts a parallel consequence: loss of stylistic variation, often termed "stylistic shrinkage" (Campbell and Muntzel 1989: 195) or "stylistic decay" (Hoeningwald 1989: 348). This, too, is seen as "noncontroversial" (*ibid*), and case studies abound (e.g. Mougeon and Beniak 1989: 309, Grinevald Craig 1997: 261, Holloway 1997: 149, Dal Negro 2004: 50, Roesch 2012: 192 *inter alia*); "monostylistic" speakers are argued to emerge where "stylistic shrinkage" is identified (e.g. Dressler and Wodak-Leodolter 1977: 37).

In spite of Labov's first principle that "there are no single-style speakers" (1971: 112), this phenomenon, well-documented in the language obsolescence literature, has also been invoked in variationist theory. Bell (1984)'s seminal account of the audio-monitoring hypothesis (or **Audience Design**) formulates specific claims with regards to the relationship between social and stylistic variation. His "style axiom" holds that stylistic variation "derives from and echoes" social variation (1984: 151). Therefore, he argues, "if a variable has no interspeaker [social] variation, it will have no intraspeaker [stylistic] variation" (1984: 158).³ This principle, Bell maintains, can be seen to work in language death:

As the range of interlocutors is reduced to intimates only, speakers lose the styles appropriate to interaction ... and become monostylistic (Dressler & Wodak-Leodolter 1977). Style ranges ... diminish and decay ... as the language ceases to be used with persons who would reciprocate such forms. Thus in [language loss], the degree of intraspeaker variation is a response to and result of the range of interspeaker variation in the immediate community (1984: 158).

Although Bell's model has undergone revisions since his seminal publication (see Bell 2001), this formulation remains unchanged. Bell's claim, does, however, present a testable

² This article adopts the labels **language obsolescence** and **language death** in line with this tradition of linguistic research, but the author notes here that the such labels do not adequately capture processes of "language oppression" (Roche 2020) that give rise to "obsolescence", and that very often operate in communities speaking these minoritised languages.

³ There are scholars in language obsolescence – such as Nancy Dorian – who have always been sceptical of this claim, but, as Dorian notes in several venues, she has "never made a point of investigating stylistic range, and in consequence [has always claimed to have] a poor range of data where style is concerned" (Dorian 1994a: 666, cf. Dorian 1994b, 2010).

hypothesis that remains under-explored in the study of linguistic variation and change in language obsolescence.

This article will argue that accounts of style in language obsolescence are oversimplified and insufficiently theorised, a view that finds support in Romaine's work over thirty years ago: "A common theoretical concern which needs to be addressed by researchers is the referential and stylistic adequacy of these languages" (1989: 372). Instead, it will be argued here that the application of Labov (1971)'s classic research design to threatened and underdocumented language communities can offer a more nuanced view of stylistic variation in such contexts. In particular, it is argued that the attention-to-speech model can be applied as a heuristic tool not just in the documentation of variation in the more formal stylistic range (a view well-elaborated by Meyerhoff 2017), but also in understanding the social significance of variation across the formal ~ informal range. The article is structured as follows: first, an overview of the understanding of style as it is presented in the language-obsolescence literature is first elaborated, followed by more recent work at the interface of language obsolescence and variationist sociolinguistics. Data are then introduced from a larger project that has looked at variation and change in Francoprovençal: a severely endangered language spoken predominantly in western Europe. Two linguistic variables are introduced and compared in order to build a discussion around the application of variationist methods, not just in building a larger empirical base for theory, but also in refining taken-for-granted accounts of style shift.

2. Structure and use in "language obsolescence"

The term **language obsolescence** has been used in the literature to refer to the progressive reduction and loss in the competence or in the use of a language, leading to language death (Dorian 1989: 2). While natural languages – be they obsolescing or "healthy" – exhibit systematic patterns of linguistic variation and change, one view in distinguishing the former from the latter relates to the rate and amount of variation and change that can occur in obsolescence, as a body of literature has identified (see e.g. Dorian 1989 and studies therein). As outlined above, cases of language obsolescence occur where a threatened variety is found in a contact situation with a dominant superordinate variety. The relationship in this case can be defined as one of unstable diglossia: at the macro level, the threatened language undergoes domain loss in the community, leading to a general decrease in the number of speakers over generations. A canonical example is best illustrated by the type of implicational scale that Gal (1978: 6) observes in her bilingual Hungarian/German community in Oberwart. Correspondingly, at the micro level, we observe a decrease in linguistic competency over

generations, and, it is argued, rapid language change (cf. Bousquette and Putnam 2019 for a critique).

The view that macro- and micro-level forces are mutually dependent in this way has been termed the "dissipation model" of language obsolescence (Wolfram 2002: 769). This label is used because scholarship in such language ecologies since at least the 1970s has evidenced an array of linguistic outcomes (often labelled "decay"), particularly in terms of grammatical simplification resulting from the disuse of the threatened variety (see Mougeon and Beniak 1989: 299). Most often, the outcome is therefore argued to be loss of language structure. For example, where grammatical paradigms undergo simplification, it is usually the morphologically marked categories that are most susceptible to change, as predicted by wellestablished models of linguistic change in language contact (e.g. Thomason and Kaufman 1988). An oft-cited example comes from Dorian (1973)'s work demonstrating the progressive loss of case distinctions in her East Sutherland Gaelic speaking community (Scotland). Within a forty-year period, Dorian evidences dramatic differences in usage for coordinated case systems associated with the masculine Noun Phrase across her sample of oldest and younger speakers. This is not to say, however, that grammatical simplification of this sort is found exclusively in obsolescing languages. Indeed, similar processes can be seen to operate in "healthy" languages, too, as in the case of Norwegian, which has also been shown to have exhibited case loss (Jones and Singh 2005: 88). As above, however, it is the amount and the rate of the change that has typically been the yard-stick for distinguishing between these disparate contexts in the literature.⁴ At other levels of linguistic description, similar tendencies are widely attested. For example, at the phonological level, Dressler (1972) and Cook (1989) identify a marked reduction in phonemic inventories and syllable-structure distinctions, as well as the loss of marked phonological features (for other examples, see e.g. Palosaari and Campbell 2011, Aikhenvald 2020).

However, feature loss is not the only identified outcome: **increased variability** is also attested, whereby greater numbers of phonemic variants and surface forms are also widely acknowledged in language obsolescence. Following evidence from dialect death, Wolfram cites Schilling-Estes and Wolfram (1999) in positing the "concentration model" (*contra* "dissipation"), whereby "structural distinctiveness is intensified among a reduced number of speakers" (2002: 769). In language obsolescence, commentators have identified the

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⁴ By one estimate, Schmidt (1985: 213) argued that 'vast amounts of change' were at the time being 'compressed into a short time span of about 25 years' among speakers of obsolescent Dyirbal.

development of optional rules emerging from previously obligatory ones, as in the attested "failure of American Finnish speakers to apply the consonant gradation rules" (Romaine 1989: 379). This sort of variability can give rise to what Dorian (1994a: 634) has termed "personal pattern variation": a concept that she elaborates on at length, and which might be summarised here as a loosening of consensual community norms, giving rise to linguistic variation that **does not** necessarily correlate with social or contextual factors, as variationist work has tended to show. Explanations offered for emergent phonological and phonetic variability in the language-obsolescence literature most often tend towards arguments associated with imperfect learning, whereby "semi-speakers" (Dorian 1973: 417) become more numerous in the community, which in turn results in a more variable language system at the community level (cf. Cook 1989).

At the micro-level, the rise in such variability has been argued to relate to the loss of interactional constraints that have historically operated on variable rules. For example, Gal (1984) illustrates how younger Oberwart speakers, who at the time were shifting from Hungarian to German, were able to acquire variable forms and linguistic constraints associated with three Hungarian phonological variables. In her study, Gal adopts a standard variationist approach and elicits data from both "casual" and "formal" contexts. The results suggest that while the younger speakers acquire the variants associated with – what can be interpreted as – sociolinguistic markers, they do not acquire the interactional constraints operating on the variability, and so produced variants interchangeable regardless of the speech style. In a context of language shift (and not language death), therefore, Gal's work exemplifies how a linearly ordered style continuum in Labov (1971)'s classic sense might become problematic for the purposes of identifying style shifting *per se*, as attention to speech does not predict increased use of one variant over another in the youngest generation of shifting speakers, even if style shifting is clearly evident in the older more fluent speakers.

3. Recent variationist research on style shifting in language obsolescence

More recent empirical work has sought to apply variationist methods to less-studied and minoritized language contexts in order to assess what new insights such contexts might reveal about variationist theory (see recent overviews by Stanford and Preston 2009 and Satyanath 2015). In particular, developments at the interface of language documentation and variationist research have begun to advocate for an approach that asks what sorts of factors constrain emergent variation in contexts typical of language obsolescence. For example, Drager *et al.* (2016) identify variable phonetic forms of a single lexical item through wordlist elicitation in

a Hawaiian speech community, and proceed to document the linguistic predictors that constrain the variability. The authors argue that language documentation can and should run in parallel to the variationist enterprise in order to shed light not simply on language structure in undocumented languages, but also to bolster the narrow empirical base on which variationist principles are set (also advocated for elsewhere, e.g. Stanford 2016, Meyerhoff 2017 *inter alia*). Similarly, Chirkova et al. (2018) make use of a wordlist elicitation task in order to document variation in Ganluo Ersu and to test Labovian First Wave principles, namely whether age, sex, social stratification effects emerge in their data. Both studies rely on a necessarily narrow style range, and Drager *et al.* are clear about the limitations and implications of such an approach:

"Word lists and other formal methods of eliciting data, while useful, normally elicit only the most formal styles of speech... In variationist work, an analysis of such data is often compared with an analysis of conversations between speakers in order to more fully describe the range of variation...but – just as in any linguistic study – the range, richness, and robustness of the variation decreases as language loss increases" (2016: 85).

The authors, therefore, also tacitly acknowledge that (i) language obsolescence and loss of stylistic variation are both dependent and unidirectional, and (ii) that wordlist translation tasks in language obsolescence remain equated with formal styles only, limiting language analysis where variation is already undergoing loss.

Clarke (2009)'s contribution is perhaps most notable for the hurdles that arise in the application of variationist methodology to lesser-studied contexts. Her study of new-dialect formation documents variability for eighteen variables in a Sheshatshiu-Innu-aimun community (Labrador, Canada). Of these variables, four demonstrate at least some sensitivity to speech style, a phenomenon that is documented without explanation in the report: "Why some features...should be more subject to style shifting is not fully clear" (2009: 120). The study is useful for our purposes, here, as it demonstrates an analogous context to that provided by Gal (1984): while the community is slowly shifting towards the dominant language over generations, there is nonetheless still the maintenance of stylistic variation. Equally compelling is Carmichael (2017)'s study of "gradual dialect death" in Louisiana. She assesses the extent of stylistic variation in /h/-realisation (which is substituted for /\(\substitute{\substituted}\), e.g. jamais "never" $[ha \square me]$ for Standard French $[\square a \square me]$) among a sample of Louisiana French speakers. In administering standard variationist protocols to elicit casual and formal styles, she observes that the oldest speakers, who are clearly attriting in other domains, nonetheless maintain some separation of speech styles for (h), whereby the "less prestigious" /h/ variant occurs more frequently in casual speech than in formal elicitation tasks (2017: 80). In a follow-up paper,

Carmichael and Gudmestad (2019: 73) argue that while their data do demonstrate stylistic shrinkage to a certain extent, this does not entail an absence of intraspeaker variation altogether.

4. Research design

4.1 Language context

In order to test Bell's account more directly, this study operationalises Labovian methods to examine variation and change in Lyonnais, a variety of Francoprovençal spoken in a peri-urban mountainous region to the West of the city of Lyon called **les monts du Lyonnais**. Francoprovençal is a severely endangered language that was once spoken as the dominant vernacular throughout the region (see Gardette 1983). However, decades of systematic stateled marginalisation have resulted in language shift over generations (see Harrison and Joubert 2018). Today, Francoprovençal is no longer transmitted inter-generationally in France (Zulato et al. 2018: 23). In spite of valiant local efforts, the language is now restricted almost exclusively to the most intimate domains of usage, where it is spoken by the last remaining speakers (an inter-war generation), concentrated predominantly in this region to the west of the city, as well as in a small number of remaining *communes* East of Lyon.

Fieldwork was conducted in les monts du Lyonnais in 2012 as part of a larger project on language variation and change in Francoprovençal (Kasstan 2015). While the language is under-documented, one advantage of sampling in the Lyonnais region is that it also formed part of the sample universe for both the *Atlas linguistique de la France* (ALF) (Gilliéron 1902-1910) and the *Atlas linguistique et ethnographique du Lyonnais* (ALLy) (Gardette 1950-1956) – two key dialectological reference works situated in France (see Figure 1). Therefore, historical evidence can be called upon as a baseline for comparison with the empirical findings of this study.

Figure 1. Lyonnais region: fieldwork sites (green) relative to ALF and ALLy blue data points [FIGUER 1 HERE]

4.2 Sample population

Data were elicited from among a judgement sample of sixteen participants (n=10 males, n=6 females), via the friend-of-a-friend technique. Although a random sample would have been preferable, a judgement sample is a necessary part of endangered-language research as (a) the target language is often heavily stigmatised, as has traditionally been the case in the present context, and (b) speakers are geographically and socially distributed in the community in a

non-random way. While the speakers acquired Francoprovençal as a mother-tongue, they are bilingual and French-dominant as language shift for this generation began in the late 1940s. The speakers are also disproportionately retired rural dwellers who had worked predominantly in agriculture.⁵

4.3 Linguistic variables

This study presents evidence from two phonological variables: first, the palatalisation of lateral approximants in obstruent + lateral onset clusters, which is referred to here in the variationist tradition as (l). This variable has been reported on previously (see Kasstan & Müller 2018, Kasstan 2019), and the data are reproduced here in order to compare with the second variable: the backing and rounding of stressed /a/, or (a). As the language under discussion is underdocumented, with very little work published in English, some extended commentary is first necessary.

4.3.1 (l)-palatalisation

When preceded by voiced and voiceless obstruents in word-initial position, laterals in Francoprovençal palatalise. The feature is not only widely attested and subject to substantial geolinguistic variation, but it is also described as a salient feature, akin to a dialect icon or "emblem" in Agha (2007: 235)'s terms. For instance, Duraffour has said that "Le fait le plus largement répandu, et sous les aspects les plus divers et les plus curieux, dans nos parlers, est la palatalisation de L dans deux catégories de groups combinés : vélaire + L, labiale + L" [In our dialects, the most widespread feature, manifested in the most diverse and curious ways, is the palatalisation of L in the velar + L and labial + L groups] (1932: 238). Among speakers themselves, commentary offered in sociolinguistic interviews suggests that they are aware of this variability: some invoking (1) performatively (in Schilling-Estes 1998: 56's terms), describing it as "the famous L", "impossible to explain to non-speakers" (Kasstan 2019). While in a number of Francoprovençal varieties, palatalisation is triggered in any of the five possible obstruent + lateral clusters /pl, bl, fl, kl, gl/, in les monts du Lyonnais, historical atlas data suggests that palatalisation only occurs before voiced and voiceless velar plosives (and not labials), as in Table 1, below. Owing to the tradition of regional dialect geography, no details are provided in Gardette (1950-1956) on the extent of the variability, or what constraints trigger

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⁵ Although every effort has been made to ensure representativity, the sample is not balanced for sex given the well-attested tendency among the oldest speakers for regional languages in France to be connected predominantly to agricultural activities dominated by men (see Pooley 2000: 141-43).

palatalisation. More recent comparative research on this feature has however identified that the preceding phonological context is the sole palatalising trigger (Müller 2011, Kasstan 2015).

Table 1. ALLy data points (illustrated in Figure 1) for (l) (taken from Gardette 1950-1956)

Map item (#)	40	41	42	49	50	51
clé (697)	[çjo]	[kjo]	-	[kj□]	[klo]	$[kj\square]$
cloche(s) (905)	[çjots]	$[kj\square\square i]$	$[kj\square\squarei]$	$[kj\square\squarei]$	[klo□i]	$[kj\square\squarei]$
clocher (905)	[çjotsi]	$[kj\square\square i]$	$[kj\square\squarei]$	$[kj\square\squarei]$	[klo□i]	$[kj\square\squarei]$
cloture (851)	_*	[kjotura]	[kjotura]	[kj□zura]	[klotura]	[kjotura]
glas (1046)	[çjots]	[j□□]	-	[□jo]	[□lo]	$[kj\square]$
glands (428)	[j□̃]	[j□̃]	$[j\widetilde{\square}]$	[□j□̃]	$[\operatorname{gl}\widetilde{\square}]$	[□j□̃]
pluie (782)	-	-	[pløvi]	[plevi]	[plevi]	[pl□vi]
blé (46)	[blo]	-	[blo]	[blo]	-	-
fleur (1164)	-	[flœr]	[fl□rəta]	-	flœr	-

^{*}Where - indicates no data

4.3.1 (a)-backing and rounding

In the Francoprovençal literature, the language is often described as being to some extent "Latin conservative" by comparison with Standard French, and "innovative" by comparison with Occitan: /a/ backing and rounding constitutes one example of this (see Tuaillon 1967). Standard French prescribes a phonological alternation between open and closed mid-vowels – commonly known as the *loi de position* – which is traditionally understood to be constrained by the type of syllable structure in the environment, whereby close-mid vowels are found in open syllables and open-mid vowels in closed syllables. The front mid-vowels /e, \square/e emerged from Latin stressed A^6 (see Pope 1952). In Francoprovençal, a series of sound changes have led to a dual paradigm whereby Latin A is maintained as /a/e unless it is preceded by a palatal consonant (typically a post-alveolar fricative or affricate), in which case /a/e is raised and tensed, unlike in Occitan (see Table 2). However, there is also considerable variation in the realisation of /a/e when not preceded by a palatal, and, in a number of Francoprovençal varieties, a later sound change has taken place which has resulted in the backing and rounding of /a/e to /a/e or /a/e like qualities (see Table 3).

Table 2. Latin stressed A in Francoprovençal and Standard French

Etymon	Francoprovençal	Standard French	Gloss
PRATUM	/p□a/	/p□e/	"field"
FRATER	$/\mathbf{f}\Box\mathbf{a}\Box/$	$/\mathbf{f}\Box\Box\Box/$	"brother"

⁶ Capitals are adopted in the Romance linguistics tradition.

⁷ This study limits itself to the analysis of unraised /a/.

CANTARE	/□□ □ ta/	/□□	"to sing"
MANDUCARE	$/\Box m\Box \Box i/$	$/m\widetilde{\Box}\Box\Box e/$	"to eat"
PORTARE	$/\Box p\Box\Box ta/$	/p □ □ □ te/	"to carry"
CARRICARE	$/\Box\Box a\Box\Box i/$	$/\Box a\Box\Box\Box e/$	"to charge"

Although documentation of this variation is patchy, a historical account of the development of /a/ backing and rounding in the wider region is sketched by Gardette (1941: 180-1), and cited by Bert (2001: 284), who argues that "un même mot peut présenter des variations" [the same word can be produced variably] (i.e. with either a or o); there is therefore clearly intra-speaker variability in these communities. Moreover, while Gardette (1941: 185) also describes (a)-rounding and backing as "a typical Lyonnais feature" (although the extent to which speakers are aware of this is unclear), it has also been argued that (a)-rounding and backing is recessive in the Francoprovençal-speaking region (Bert 2001: 285). Nonetheless, evidence from the ALLy suggests that, by the 1950s, the rounded variant was dominant in les monts du Lyonnais (Table 3, taken from Gardette 1950-1956), although, again, there is variation, and previous work has attempted to account for this. For instance, Bert (2001: 285) invokes Chen and Wang (1975)'s account of lexical diffusion in arguing that, in the case of this feature, what began as a change in progress never ran to completion. For all intents and purposes, (a)-backing and rounding is described as a stalled change in progress. This presents problems for clearly demarcating the envelope of variation, as lexical items containing /a/, that should otherwise be included for analysis, historically never underwent the change to the backrounded variant. Therefore, this study adopts a pragmatic and locally oriented approach, and limits the analysis of (a) to items for which there is clear historical evidence (see examples illustrated in Table 3). This does, however, limit the number of possible tokens available for analysis.

Table 3. ALLy data points for (a) (taken from Gardette 1950-1956, illustrated in Figure 1)

Map item (#)	40	41	42	49	50	51
pré (2)	$[pr\Box]$	[pro]	[pro]	$[pr\square]$	[pr□]	$[pr\square]$
nez (1072)	[no]	[no]	[no]	[no]	[no]	$[n\square]$
clé (697)	[çjo]	[kjo]	-	$[kj\square]$	[klo]	[kj□]
frère (947)	$[\operatorname{fr}\Box\operatorname{r}]$	[fror]	[fror]	[fror]	[fror]	$[\operatorname{fr}\Box\operatorname{r}]$
mère (945)	[mer]	[mər]	[mər]	[mər]	$[m\Box r]$	$[m\Box r]$
père (945)	[per]	[pər]	[pər]	[pər]	[p□r]	$[p\Box r]$
chêne (427)	[□ono]	[□ono]	$[\Box ono]$	[□onə]	[□onœ]	$[\Box\Box n\Box]$

As with (l), there is no account of any social or contextual factors that operate on this variation, but there has been some attempt to describe the phonological environments prone to triggering rounding and backing from a historical perspective. Bert (2001: 282-288) has argued that, where one finds "dental and labial consonants" following Latin A in the morphology, then these are the most favourable contexts that triggered the backing and rounding of /a/ (e.g. PRATUM $>/pr\Box/$, "field"). However, no quantitative analysis is presented from a synchronic perspective.

4.4 Procedures

While classic wordlist tasks and reading passages are staples of variationist methodology for the elicitation of careful (formal) styles, these tools are not appropriate in this particular context as speakers are largely illiterate in the target language. Some modification of the classic method was therefore necessary. Participants attended two recorded sessions. In the first session, a verbal wordlist translation task (following Klingler and LaFleur 2007: 336) was administered (in French) in order to elicit a more monitored speech style; this task contained 18 lexical items carrying the variables (a) and (l), and these were interspersed among a further 9 items containing additional variables of interest (as part of a larger study) as well as 28 filler items. Participants were then invited to attend sociolinguistic interviews in groups. Group interviews were led by a native speaker, in the target language, and followed standard variationist field methods (per Labov 1984), using context-appropriate conversational modules in order to elicit a less monitored, more casual speech style. Transcription and coding of the variables was undertaken auditorily as sufficient acoustic salience is present to distinguish both nominal binary variables (i.e. $[a]/[\Box]$ and [1]/[j]). Owing to the fact that two low-frequency variables are analysed below, the primary statistical measures adopted here are, where possible, logistic regression and \square^2 , and Fisher's exact test of significance (two tailed) where observations do not meet the minimum threshold. Where inferences cannot be drawn, descriptive statistics are used to highlight generalisations.

5. Analysis

5.1 Prior results: (1)-palatalisation

As mentioned above, results from this study related to (l) have been reported previously in Kasstan & Müller (2018) and Kasstan (2019). N=332 tokens of (l) were observed across all five possible obstruent + lateral onset clusters, and 99% of palatalised tokens were observed in voiced and voiceless velar + lateral clusters only. The evidence therefore suggests that the

single internal linguistic constraint operating on (l)-palatalisation remains robust. Focusing on just the velar + lateral clusters (n=152), it is also clear that there is significant intra-speaker variation: while some speakers are categorical in their production of palatals, other speakers are not. Of the social factors modelled in the analysis, only speech style emerged as statistically significant (cf. Table 4 and 5, Figure 2a and 2b).

Table 4. Distribution of (1) by sex

	[1]	[j]
females	41% (7)	59% (10)
males	51% (69)	49% (66)
$(\square^2 = 0.596, 1 df, p = 0.4401)$		

Table 5. Distribution of (1) by speech style

	[1]	[j]		
casual	96% (24)	4% (1)		
wordlist	41% (52)	59% (75)		
(Fischer's exact (two-tailed), $p < .001$)				

The results for (l) suggest that, among a relatively homogeneous sample of sixteen speakers, there is a significant difference observed for the distribution of [j] (evaluated above as the most typical Francoprovençal variant) in the most formal speech style, and [l] in the most casual speech style. Much like Clarke (2009), this variable behaves like sociolinguistic marker (per Labov 1972: 238): there is clearly sensitivity to speech style. However, the direction of the shift (more vernacular in more formal contexts) is an unexpected outcome, warranting further discussion (see below).

[FIGURE 2 HERE]

5.2 Results: (a)-backing and rounding

In all, n=331 observations of (a) were recorded: with 87% of observations being back and rounded ([a] n=55, $[\Box]$ n=276). While (a) is a low-frequency variable in the data (certainly when compared with vocalic variables that are typical of variationist research), it is clear that this dialectal variant remains dominant in les monts du Lyonnais. There is also clearly variation.

Beginning with the internal linguistic constraints, a battery of internal factors was modelled using mixed effects logistic regression (Johnson 2009). No *a priori* assumptions were made about what factors might favour backing and rounding; modelling included phonological environments (both PRECEDING and FOLLOWING contexts) and PART OF SPEECH, with WORD and

SPEAKER as random intercepts. FOLLOWING phonological context emerged as the only statistically significant predictor of the backing and rounding of /a/(p=0.01). However, the results are unreliable as there are clear lexical frequency effects in the dataset (with token counts skewed towards commonly occurring lexical items, particularly for semantic fields relating to the home, which make up the bulk of observations). Therefore, while this observation lends empirical support to historical descriptions of the feature, more data would be needed to confirm the tendency.

Turning to the social factors, while there is a further skew in the data in that more tokens were observed among males than females, no clear pattern emerges: both groups favour [\Box], even if the proportion of [a] tokens is higher among females (the distribution is not statistically significant, cf. Table 6, Figure 2c). Were this feature to be recessive (as outlined above), then an argument might be made for a classic sociolinguistic gender-pattern-type effect, whereby this change reflects a "change from above" (Labov 2001: 274), but token numbers are too low for this argument to be borne out clearly in the data.

Table 6. Distribution of (a) by sex

	[a]	
females	19% (14)	81% (59)
males	13% (33)	87% (217)
$(\square^2 = 1.179, 1 \text{ df}, p = 0.2776)$. ,

Table 7. Distribution of (a) by speech style

` `	[a]	
casual	11% (8)	89% (68)
wordlist	18% (47)	82% (208)
$(\square^2 = 2.641, 1 \text{ df}, p = 0.1042)$		

Turning to the distribution by speech style (Table 7, Figure 2d), there is a small 7 percentage point rise in [a] variants in the wordlist translation task when compared with casual speech (again, this distribution is not statistically significant, p = 0.1042). If the argument is adopted (per the previous literature) that $[\Box]$ is receding in the wider region, then the evidence presented in Table 7 and Figure 2d therefore suggests that the slight rise in [a] variants in the wordlist might signal a change in progress (see below). In the round, although the (a) data are limited and do not offer statistically significant trends, the general picture is that stylistic variation is nonetheless present in the sample under study.

6. Discussion

This article began by interrogating claims made in the language obsolescence literature that style variation is a "marginal" phenomenon in endangered varieties exhibiting, what has been termed, a "gradual language death pattern". As outlined above, where domain loss has occurred, a body of previous work has sought to demonstrate that variation "shrinks" along the style dimension, leading to "monostylism". This work has been invoked in variationist theory in order to add some coherence to agentive modelling of style shift. Bell (1984) predicts that, where a variable has no interspeaker variation, said variable will equally show no intraspeaker variation (1984: 158). However, it is not at all clear what "no interspeaker" variation means in practice, and Bell further suggests that the existence of "monostylistic" speakers supports his axiom that social variation echoes stylistic variation. To test this claim, a relatively homogenous of speakers were sampled: all belong to the last generation of fluent speakers (sequentially bilingual, though now dominant in French); they are a now-retired inter-war generation. Using variationist techniques, Labov (1984)'s field methods for eliciting speech along a continuum of style variation was applied to two linguistic variables in the context of a threatened and under-documented language: recall that Francoprovençal is now used exclusively in the most intimate domains of usage, and it is no longer transmitted intergenerationally.

First, considering the claims pertaining to style in the language obsolescence literature, it is clear from the evidence above that stylistic variation is identifiable in the data: these speakers are not "monostylistic". What is more, the variation is socially meaningful. For (1), the data evidenced a statistically significant distribution (Fischer's exact test, two tailed, p <.001) whereby participants were more likely to produce the stereotyped Francoprovençal variant in the most attended-to speech style; conversely, laterals were produced to nearcategorical levels in the most casual speech style. We therefore observe the converse pattern to what is typically predicted: greater attention to speech predicts more vernacular variants. Kasstan (2019) argues that this arises because speakers "perform" their best Francoprovençal in careful styles; it is, in Schilling-Estes' terms, more "self-consciously" dialectal: "speakers focus sharply on speech itself when they demonstrate a speech variety for others" (1997: 54). With regards to (l), then, we find support for Dorian's view (who has always been sceptical of claims associated with stylistic shrinkage in language obsolescence) that natural languages can still be spoken in ways appropriate to speaker' various stylistic needs, in spite of very limited access to occasions and contexts with which to practice (Dorian 1994a: 326). Turning to (a), the backing and rounding of /a/ was identified above as a relatively recent sound change that appeared to have "stalled" as the language has become more threatened, and as speakers began

shifting in numbers to French. Nonetheless, historical atlas material evidenced a robust pattern of rounding in les monts du Lyonnais, and, like (1), at least some metalinguistic evaluation was identified in the literature. The analysis revealed that, contrary to (1), speakers showed preference for [\square] both within and between groups. There was, however, some evidence pointing towards a tendency for the production of the unrounded [a] variant in the more careful speech style. This was interpreted as a reversal of the backing and rounding of /a/, a change that appears to be stronger among females than males (as one might predict from a change from above), although the evidence is both very limited, given the small token count, and not statistically significant; this conclusion is therefore speculative. We can nonetheless point to a limited amount of style shifting for (a).

Taken together, the variables demonstrate that socially meaningful intraspeaker variation is demonstrably present in the speech community, in spite of an absence of interspeaker variation as traditionally defined. When combined with recent empirical work, quantitative accounts of stylistic variation in language obsolescence present surprisingly little evidence in support of "monostylism" (contra Dressler and Wodak-Leodolter 1977), as invoked in Bell (1984). The evidence presented above therefore calls for a more nuanced approach to the analysis of stylistic variation in language obsolescence. There is also a need to depart from the view that stylistic variation necessarily mirrors and echoes social variation: while such a position may be readily adopted in the context of the dominant languages typically studied in the variationist paradigm,⁸ it remains controversial to label this relationship "axiomatic" across the board, as is commonly held in the variationist tradition since the 1980s. The evidence presented here demonstrates that stylistic variation remains identifiable among the last remaining speakers of a threatened language that has suffered acute domain loss, and adds support to studies showing similar tendencies in the case of "dialect death" too (e.g. Carmichael 2017; Carmichael and Gudmestad 2019). While not appropriate for every context without modification (see Blainey 2017), this article has also demonstrated that the adoption of standard variationist methods constitute a useful heuristic tool for a more robust analysis of variation across the entire stylistic range among speakers of threatened languages.

7. Conclusion and limitations

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⁸ Even if exceptions to the style axiom remain a thorny issue in the literature, such as the presence of hyperstyle variation in Metropolitan French (Armstrong 2013).

The position adopted by researchers in language obsolescence and variationist sociolinguistics with regards to style variation is one of diametric opposition. While the centrality of style is uncontested in the latter, style is marginal and ephemeral in the former. Bell (1984) does however propose a connection between the two areas of inquiry under Audience Design. If style variation derives from and echoes social variation (per the "style axiom"), then language obsolescence presents evidence where this principle plays out to its logical conclusion: if there is no social variation, then there will be no stylistic variation either. This paper has sought to demonstrate that both views are not sufficiently nuanced, and that counterexamples are readily observed in very different language ecologies. The evidence presented here demonstrates (a) the presence of style variation in spite of minimal interspeaker variation, and (b) that one of the lines of evidence used in support of Bell's axiom reinforces an insufficiently nuanced view of style shift in language obsolescence. This does not however call into question the validity and reliability of Audience Design: indeed, while today variationism does explore many approaches to style, this article advocates that classic variationist methods should be adopted in order to document and better understand the variation present here.

The author nonetheless remains cognisant of the limitations of the study: the compromises made in order to study a threatened and under-documented language such as Francoprovençal means the sample of speakers remains small, and the number of observations recorded for both variables are low by comparison with the bulk of variationist work on better-studied languages. Further research, employing a wider battery of factors would elucidate the direction of the changes described above, as well as their social significance from the perspective of the last remaining speakers of the language. This article has primarily aimed to document the variation, laying the groundwork for further research in this context.

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