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Acoustic data about the Griko vowel system*

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Abstract

This paper aims to give an acoustic description of the vowel system of the Greek varieties spoken by elderly speakers in Calimera and Martano (Grecia Salentina, Italy). The analysis is based on the observation of the dispersion of the frequency values of formants. Acoustic measurements have been taken for 220 vowels in stressed position from a selection of isolated words uttered by four informants. Formant values have been detected on the acoustic spectra of the different vowel qualities and results have been compared on F_1 - F_2 and F_3 - F_2 diagrams, thus confirming similar areas of existence for the same vocalic phonemes described by Profili (1986) for the variety of Griko spoken in Corigliano d'Otranto.

On the basis of this speech make-up, our study presents a preliminary acoustic description of two slightly different pentavocalic systems for the last generation of mother-tongue speakers.

The data have been compared with similar vowel realisations of Modern Greek presented by Arvaniti (1999) and Fourakis et al. (1999). As in Standard Modern Greek, the Griko system displays a symmetric organisation (with distinct distribution for mid vowels) and fairly stable formant patterns throughout each vowel. A similar comparison with other Sallentinian varieties spoken in the same area allowed us to isolate the elements of convergence/divergence to and from the different vowel systems. Even if our results may depend on idiosyncratic characteristics, it seems that a slightly more close /e/ may be pointed out as a typical element of the Griko of Calimera versus the corresponding phoneme of southernmost dialects.

Keywords: Griko, Acoustic Phonetic, Vowel systems, dialectal divergence.

1. Introduction

Vowel systems of different languages or dialects can be compared on the basis of functional and distributional properties. When two varieties of the same language

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share all these properties (or most of them) and, still, people are able to grasp some cues related to vowel pronunciation, allowing them to recognise speakers from different varieties, it means that their phonetic realisations show relevant differences. The present paper aims to give an acoustic description of the vowel system of Griko as it is spoken by the last generation of mother-tongue speakers of Calimera and Martano in order to account for the well-known divergence of the two dialects in this field.¹

The analysis is mainly based on the observation of frequency values of vocalic formants in isolated words uttered by four informants and on their comparison following a successful current of studies which has progressively gained consensus since the first publications by P. Delattre (1948).² For this research we have measured (following the protocol suggested by Ferrero, 1997) the values of the first three formants of the acoustic spectrum of the main vowel qualities distinguished by a selection of speakers when uttered in isolated words in stressed or unstressed position. Starting from this kind of speech data, our preliminary analysis allowed us to propose a quite accurate acoustic description of the vowel system of these two Griko varieties as they are spoken by the last generation of speakers who had it as a mother-tongue.

2. General phonetic and phonological properties of Griko

2.1. Consonantal sounds

The consonantal *entourage* has generally little effect on vowel sounds, just slightly changing the quality of mid vowels towards more close realisations when preceded or followed by homorganic glides (/j/ for front vowels and /w/ for back vowels).

Nevertheless, the consonantal systems of Griko dialects give way to a few cut-off possibilities among them. Therefore, we shall shortly summarise the general phonetic inventory and its main directions of variation (it will be clear that it is suitable to reanalyse its characteristics in a contrastive framework including Modern Greek varieties and other Sallentinian dialects).

In a very different way from the diasystem of Modern Greek (and from what we know of Ancient Greek), Griko is characterised by a double series of plosives, /p t k/ and /b d g/, strongly subject to voice neutralisation in some positions (e.g. intervocalically, unless the sound length does not reinforce the contrast). That is why, for instance, words like the ones meaning 'red', 'olive-tree' or 'to charm' are spelled in two alternating ways: *rodinò* or *rotinò*, *poradi* or *porati* and *mmaghèò* or *mmakèò*.

¹ For details on sociolinguistic facts see Profili (1999a and 1999b), Romano (2000), Romano et al. (2002), Seefeldt (2003).

² For a review of this topic for linguistic varieties spoken in Italy see Calamai (2003) and Rivoira & Romano (2003).

That is an important point which is, instead, often disregarded even in the scientific literature.³ /b d g/ are therefore well stable only if geminate.

The same happens to the cacuminal /dʒ/, which appears only as a geminate that can be realised as an affricate ([dʒz]): only a few speakers (whose sociolinguistic profile is difficult to determine) seem to use voiceless counterparts of these phonemes when realising the clusters /tr/ and /ttr/ as [tʃ] and [tʃ̥] (something that is typical in Sallentinian Romance dialects of the same area).

A very stable place contrast is the one between two pairs of affricates: dental /ts dz/ against postalveolar /tʃ dʒ/ (whose presence in Greek dialects is generally reduced to *tsitakismos* phenomena not distinguishing the variation along this scale). In spite of an unhandy use by speakers of languages not possessing it in their consonantal systems, this contrast is well established in all parts of southern Italy. Speakers of Griko as a second language are instead confused by the ordinary spelling, which does not account for the distinction between /ts/ and /dz/, and sometimes realise the /dz/ phoneme of many verbal endings as [ts].

Among fricative sounds there are the three voiceless /f s ʃ/ and only one voiced phoneme /v/ (the same as in Sallentinian) plus the variant [z] of /s/ before a voiced consonant (an assimilation process widespread in Italo-romance dialects). Nevertheless, there is another fricative which is unknown in the rest of the Salento, the voiceless velar /x/. This phoneme is subject to a restricted application of combinatory rules and to a macroscopic geographical variation which marks the different Griko dialects. The typical (inter-)dental fricatives of Modern Greek have evolved in Griko: they have changed into /t/ or /s/, following the context, and have received specific treatments which distinguish the different dialects.

The universal sonorants are /m n ɲ/ and /r l/, with a combinatory variation of the former before consonants (common to the other Sallentinian dialects) and the (rare) contrasts of the alveolar lateral with the palatal one [ɲ] which probably penetrated in a few cases because of interference with Standard Italian (most Sallentinian dialects ignore it).

Even in a simplified description of the consonantal system like the present one, there are other facts that have to be at least pointed out: the presence of consonant gemination,⁴ which is functional (with some limitations) in initial position, as well (see Romano, 2003, and Romano, 2006) and the presence, in some varieties, of uncommon clusters such as /fs/.

As compared to Modern Greek we can schematically underline the following facts:

- (a1) the presence of distinctive geminates (*mana* 'mum' vs. *manna* 'sheaf', *kandò* 'packsaddle' vs. *kannò* 'smoke');

³ Potential contrasts in minimal pairs such as *liko* 'wolf' and *ligo* 'wicker' are thus neutralised and the different forms are often kept only because of morphological alternations or because of their spelling in citation forms.

⁴ Internal gemination can be exemplified by minimal pairs such as *mana* 'mum' vs. *manna* 'sheaf', *kandò* 'I suffice' vs. *kannò* 'smoke'. Initial geminates are exemplified later in the text (see a2).

- (a2) the frequent presence of initial apheretic clusters and apheretic or assimilated geminates (*rtea* 'towards', *kkutèo* 'pay', *ttèni* 'comb');
- (a3) the diffusion of cacuminal sounds -*dd-* < -LL- (*pođđi* 'much');
- (a4) the latent neutralisation of voiced/voiceless single consonants (*poradi/porati* 'olive-tree');
- (a5) the presence of two series of affricates —voiced and voiceless—, alveo-dental /ts dz/ and postalveolar /tʃ dʒ/ (-*tz-* -*zz-* and -*ci-* -*gi-*);
- (a6) the preservation of the clusters -*mp-* -*nt-* -*nk-* (contrasting with clusters -*mb-* -*nd-* -*ng-*; e.g. *ampi* 'back' vs. *grambi* 'daughter-in-law' or the two verbs in the common expression *mponno ce mbenno* 'I push and I get in');
- (a7) the absence of dental fricatives and the presence of only one palatal/velar fricative, the voiceless /x/ (-*ch-* or -*h-* or -*ħ-*);
- (a8) the frequent assimilations at word boundary and deletion of final consonants;
- (a9) the dominance of syllable structures like V, CV, CCV and syllabic words like CVCV.

As compared to Romance Sallentinian dialects (as described e.g. in Romano, 1999) a number of interesting properties may be remarked:

- (b1) the presence of the velar voiceless fricative /x/ (and its palatal or laryngeal variants);
- (b2) the preservation of the contrast /ɔ/ ~ /u/ in unstressed final position;
- (b3) the frequent occurrence of heterosyllabic vowel clusters;
- (b4) the importance of the role played by oxytony and the existence of different stressing rules;
- (b5) the presence of complex clusters, even though sometimes many of them may appear simplified (-*ft-* > -*tt-*, -*sf-* > -*sp-*, -*fs-* > -*tz-*, -*vv(l)-*, ...);
- (b6) the latent confusion between /tʃ/ and /ʃ/ intervocally (which is typical of the Romance dialect spoken in Lecce and in the surroundings).

2.2. Vowel sounds

Phonetic studies of Griko and its dialects are often conditioned by a diachronic perspective. Besides the lack of scientific contributions dealing with synchronic aspects, we claim for a better attention to the diatopic variation of Griko, which requires rigorous surveys. Even though it mainly concerns consonants, this variation needs a deeper insight which is here roughly sketched starting from some local facts about vowel realisations.

As for vocalic phonemes, when comparing the actual system with the 5-vowel systems of Modern Greek (see Fourakis et al., 1999, and Arvaniti, 1999) and of the Sallentinian dialects spoken in this area (see Romano, 1999), the scientific literature (which is essentially confined to Profili, 1986, and Romano, 2004) describes a vowel system with 5 stable contrasting sounds /i ε a ɔ u/. This is a fairly common system in world's languages and dialects (see Vallée, 1994; Trudgill, 2009) but shows here some relevant variation facts. The five basic vowel qualities follow e.g. a universal

distribution in stressed position (Profili, 1986: 73–80) but present some restrictions (and some allophonic rules) for the mid-aperture sounds and some case of neutralisation in unstressed position (Profili, 1986: 74–75).⁵

Our contribution in terms of acoustic analysis presented in Romano (2004, see also Romano, 2008) highlighted a certain number of other properties for data of a speaker from Calimera (compared to data from the Bovesia, see Kokkinakis et al., 2000, Katsoyannou, 2001, and Romano, 2003) showing that—at least in that case—the vowel system was mainly characterised by a mid degree of aperture for /ε ɔ/ (rather mid-close for the front vowel), with a dispersion of realisations scattered in an area fairly similar to the typical plot drawn for the Sallentinian dialects of the same area.

3. Speech data and analysis methods

In order to obtain an objective and fine-grained description of the relationships between the basic vowel qualities characterising the vowel system of Griko, we explored a set of data related to stressed vowels in a sample of ‘laboratory’ speech uttered by four elderly speakers.

The four informants which have been considered are labelled BL and GT, (Calimera), CL and SS (Martano). They are all men between 65 and 75 years old.⁶ The sample we analysed is composed of 220 stressed vowels occurring in various word contexts in internal position, in open and closed syllables.

The corpus of words has been collected by means of questionnaires of fore- and back-ward translation (with crossed method; see Romano, 2008), alternately beginning from the four linguistic codes which have a certain diffusion in these communities. For instance, it has been asked—in random order— firstly what the Griko word for the Italian *domani* ‘tomorrow’ was; secondly, how the Sallentinian *crai* ‘tomorrow’ could be translated (in Italian or in Griko) and again, *vice versa*, what the Italian word for Griko *àvri* or Modern Greek *αύριο* (always ‘tomorrow’) was.⁷

The initial wordlist was based on 100 entries, but taking into account the lack of lexical consistency from a dialect to another and the distinct reactions of

⁵ See Katsoyannou (2001: 13) for similar considerations on Bovesia dialects.

⁶ BL (former filling station attendant) speaks Griko only occasionally (he prefers the local Sallentinian dialect when speaking with his relatives and during the interview; he has however a fairly good knowledge of the local variety of Italian too); GT (former employee of the town hall) switches from Italian to Sallentinian to Griko depending on the language of his interlocutor (he prefers Italian in familiar speech and during the interview); CL (former countryman) masters above all Griko (and, of course, Sallentinian, with a more or less evident interference of Italian; during the interview he showed the tendency to insert elements of Modern Greek he learned during the Second World War, when he lived for more than one year at the boundary between Albania and Greece); SS (former teacher and expert of the local Griko) prefers Italian (even if he is perfectly fluent in Griko and Sallentinian and masters elements of Modern and Ancient Greek and German). A final element which has to be pointed out is that GT has a weak pronunciation of the *r* sound.

⁷ Answers about Modern Greek forms raised positive relevant results only in a few cases for speakers GT, CL and SS (not BL). The full lists have been published in Romano (2008).

speakers about a selection of items, the number of words that were useful for the comparison has considerably decreased.⁸ This led to a set of recordings that was different from a speaker to another, except for 11 words that were common (in at least three codes) for each of the 5 distinct vowel qualities. Therefore, 55 stressed vowels were measured for each speaker.⁹

The speech make-up was recorded in quiet rooms at the informants' homes with the help of a digital recorder (DAT - TASCAM), on two separate dates: in 2001 (Martano, CL) and in 2005 (Calimera, BL and GT; Martano, SS). Recordings were subsequently transferred onto a PC with a digital *Creative Sound Blaster* set for the .wav format (mono channel, sampling frequency 16000 Hz, 16 bits per sample) and were submitted to acoustic measurements with Praat.

For each vocalic realisation, the spectrographic slice showing the best stability was selected (in the hold phase) and values were retained for the first (F_1), the second (F_2) and the third (F_3) formant (except for speaker CL for whom only the first two formants were taken into account).¹⁰

The existence areas of each vowel were graphically identified as dispersion regions of the values of all realisations (for the same speaker) on F_1 - F_2 and F_3 - F_2 scatterplots (F_2 values were indicated in Hz on the x-axis while F_1 and F_3 values in Hz were put on the y-axis of different plots without any normalisation or perceptual scaling).

4. Data analysis

The low number of speakers analysed prevent us from taking our results as absolute: our conclusions here may only render a picture of the vowel system which is common between older generations of speakers in the two towns.

We present here only F_1 - F_2 scatterplots where the values of the first two formants allow us to draw a scheme more or less equivalent to the traditional vowel diagram.

⁸ This needed to recover other specific common words that were inserted during the interview (as, for instance, some toponyms).

⁹ The common corpus included the following words: *griko*, *ciuriaci* (Sunday), *dekatria* (thirteen), *scid d o* (dog), *fonì* (voice), *krasi* (wine), *simmera/simmeri/simberi* (today), *tsomi/fsomi* (bread), *Luppiu* (top., Lecce), *milisome* (we speak), *frontili* (front), *Kalimèra* (top.), *chèra* (hand), *dèje/dègghie* (no), *dèrma* (skin), *fod d èa* (nest), *jurèò* (I ask), *Katumerèa* (top.), *kiatèra* (daughter, girl), *rèkko* (pig), *pèmmu* (tell me), *sucèa* (fig-tree), *tsèro/fsèro* (I know), *Martàna* (top.), *àvri* (tomorrow), *agàpi* (love), *àla* (salt), *qjelàda/jelàda* (cow), *ciofàli* (head), *d d àsso* (I change), *fonàzzo* (I call), *gràfome* (my name is), *koràsi* (maid), *màna* (mum, mother), *(am)màtia* (eyes), *pad d ikàri* (youngster, lad), *stàsi* (stay), *rodinà* (red, npl.), *sarànta* (forty), *aderfò/adreffò* (brother), *akato* (hundred), *celòna* (turtle), *chròno* (year), *Derentò* (top., Otranto), *glòssa* (tongue), *kalò* (good), *lòja* (words), *nerò* (water), *òli* (all, mpl.), *pòdia* (feet), *pondikò* (mouse), *pentakòsce* (five hundred), *vasirikò* (basilic), *ambrò/mbrò* (in front of, near), *trifùd d i* (money box), *artsùli* (pot), *bbaùli* (trunk), *ciùri* (sir, Lord), *esù* (you, sg.), *ettù* (here), *kùse* (listen), *lampàune* (*Muscari comosus*), *plàuna* (sheet, nsg.), *ùmme* (yes), *alipùna* (fox).

¹⁰ The measurement protocol was based on an accurate choice of the best point in a segment where to get the measure of its acoustic characteristics and follows the praxis usually adopted in experimental phonetics (see Salza, 1991; Maturi, 1992; Ferrero, 1997).

This scheme allows for a qualitative definition of the single vocalic realisation that can be evaluated in relation to the distinct areas where vowel sounds uttered by similar voices (in general of speakers of the same sex and age) are positioned. By taking into account the significant approximation of this equivalence, we can however adopt the common convention establishing a correspondence between the degree of aperture of vowels and the frequency values of the first formant (F_1) and the degree of fronting or backing with those of the second formant (F_2).

As shown by the diagrams in Figure 1, the two speakers from Calimera, even though characterised by rather different voice registers (BL speaks with a deep and gloomy voice, sometimes hoarse, and with a general articulatory asset favouring the fronting of back vowels),¹¹ present an evident convergence of values (cp. Tables 1 and 2).

Well defined existence areas are visible for high vowels (with realisations that are a little bit lowered for GT) while the values for /a/ show a relatively different disposition. But for both speakers we acknowledge an asymmetry concerning the front mid vowels which are rather mid-close (cp. with data in Romano, 2004, for another speaker of the same town).

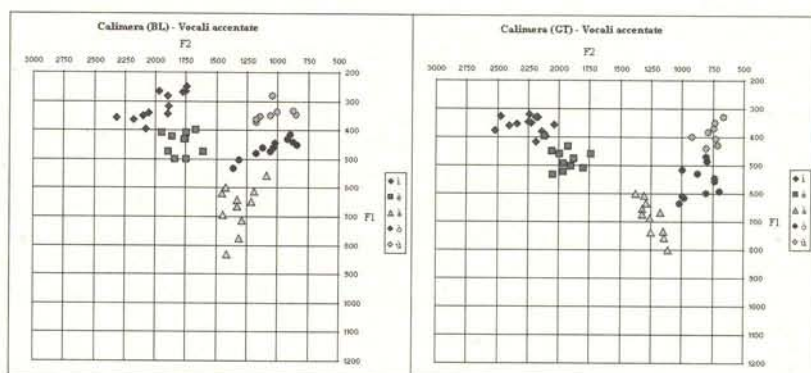


Figure 1. F_1 - F_2 dispersion scatterplots for stressed vowels of speakers BL and GT (Calimera).

¹¹ Like in other Sallentinian varieties (but this fact should be accurately verified), a somewhat prim speaking style appears in association with a general centralisation of the stressed /o/ in some positions.

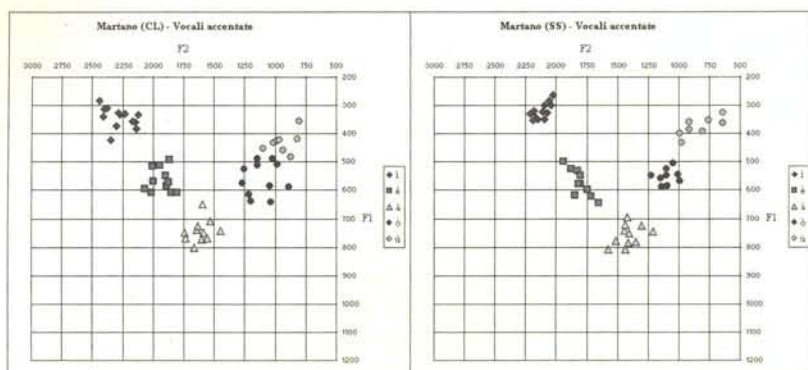


Figure 2. F_1 - F_2 dispersion scatterplots for stressed vowels of speakers CL and SS (Martano).

For the two speakers from Martano (see Fig. 2 and Tables 3 and 4) all the existence areas on the front and central axes seem to preserve a clear distinction between them with three aperture degrees respectively corresponding to high, mid and low (central) positions.

In both cases, even though high back vowels are fairly lowered (above all for CL), they allow for realisations of /o/ scattered in an intermediate region (more concentrated for SS and more sparse for CL).

Concluding this first description, we shall stress the considerable coherence between the data collected (as referred to speakers with similar 'voices') by defining a 5-vowel system roughly symmetrical with centroids laying in the same regions as the ones determined for other Sallentinian varieties of the same area (see Romano 1999, 2004): on the basis of these vocalic productions, the four speakers could be hardly told apart in diatopic terms, except for the typical more close realisation of the front mid vowel of Calimera speakers.

	F_1 [Hz]		F_2 [Hz]		F_3 [Hz]	
	μ	σ	μ	σ	μ	σ
i	316	49	1973	179	3279	252
e	445	39	1783	104	2467	241
a	669	80	1316	118	2843	91
o	464	33	1054	174	2141	129
u	343	28	1038	126	2585	129

Table 1. Mean values and standard deviations of the first three formants for the stressed vowels of speaker BL (Calimera).

	F ₁ [Hz]		F ₂ [Hz]		F ₃ [Hz]	
	μ	σ	μ	σ	μ	σ
i	356	29	2232	124	2936	421
e	471	40	1941	118	2586	272
a	686	64	1246	87	2433	76
o	560	56	855	123	2585	93
u	389	38	759	78	2466	156

Table 2. Mean values and standard deviations of the first three formants for the stressed vowels of speaker GT (Calimera).

	F ₁ [Hz]		F ₂ [Hz]	
	μ	σ	μ	σ
i	340	35	2293	108
e	564	44	1921	85
a	742	40	1612	86
o	561	58	1109	122
u	431	37	937	99

Table 3. Mean values and standard deviations of the first two formants for the stressed vowels of speaker CL (Martano).

	F ₁ [Hz]		F ₂ [Hz]		F ₃ [Hz]	
	μ	σ	μ	σ	μ	σ
i	320	28	2117	63	2918	200
e	575	48	1803	82	2566	127
a	758	37	1408	99	2824	128
o	553	27	1093	74	2699	98
u	376	32	828	141	2316	142

Table 4. Mean values and standard deviations of the first three formants for the stressed vowels of speaker SS (Martano).

5. Conclusions

As pointed out by many sources (above all those in which the Griko phonetic system is studied on historical bases), Griko dialects share most of their vocalic characteristics deriving from vowel outcomes in stressed position. So, one may argue that these dialects could not be differentiated from the specific variation conditions of vowels. However, distinctive properties of vowel realisations are related to lexicalised vowel outcomes in unstressed positions that are reliable means of dialect discrimination.¹² Nevertheless, it is not only on the basis of these macroscopic cues that Griko dialects diverge: by means of finer representations, on a phonetic level, the distinction of Griko varieties can be outlined on specific realisation conditions which can be analysed and represented on acoustic bases.

¹² All Sallentinian dialects differ for these aspects: 'to throw out' is *manare* in the Southern area (S), *menare* in the Northern area (N), *minare* in the mid band, the same as for 'turtle' which has *cialona* (S), *celona* (S and most of Griko dialects) and *cilona* (in the mid band, including Castrignano dei Greci in the Grecia). A similar isogloss may be traced for the designations of 'bee': *melissi* in most of the Griko area (including Calimera and Martano) but *milissi* for Castrignano (cp. Rohlfs, 1961).

The impressionistic judgement that speakers from Calimera have a slightly more close realisation of /e/ as compared to those of Martano may be confirmed e.g. by the clear difference appearing in the acoustic diagrams. Even though the evidence may still be influenced by idiosyncratic characteristics, it could be used, together with other significant variation phenomena, as a characterising element of Calimera Griko.

Moreover, by means of the acoustic analysis, apart from such an interesting element, we verified fairly stable vowel qualities for these speakers (little subject to diphthongization) and a rather symmetrical stressed-vowel system with mid vowels equally distributed (with often lowered back realisations and somewhat raised front realisations).

All these data are of course interesting when they are compared with those of other Greek dialects and of Sallentinian Romance dialects of the same area, with the aim of showing convergence or divergence elements for the linguistic varieties spoken in these multilingual communities.

References

- Arvaniti, A. (1999). Illustrations of the IPA: Modern Greek. *Journal of the International Phonetic Association*, 19, 167–172.
- Calamai, S. (2003). Vocali d'Italia. Una prima rassegna. In P. Cosi et al. (Eds.), *Voce Canto Parlato. Studi in onore di Franco Ferrero* (pp. 49–57). Padova: Unipress.
- Ferrero, F. (1997). Problemi spettroacustici di classificazione e misurazione delle vocali: un contributo. In F. Cutugno (Ed.), *Fonetica e fonologia degli stili dell'italiano parlato* (Proc. of the VII Giornate di Studio del Gruppo di Fonetica Sperimentale, Napoli, Italy, 1996) (pp 235–264). Roma: Esagrafica.
- Fourakis, M., Botinis, A., & Katsaiti, M. (1999). Acoustic Characteristics of Greek Vowels. *Phonetica*, 56, 28–43.
- Katsoyannou, M. (2001). Le parler grec de Calabre: situation linguistique et sociolinguistique, *Lalies*, 21, 7–59.
- Kokkinakis, G., Coutsogeorgopoulos, H., Dermatas, E., & Kaitzas, G. (2000). Electronic Dictionary of Pronunciation and Usage of the Græcanic Dialect of Southern Italy. *Proc. of the 2nd Int. Conf. on Language Resources and Evaluation - LREC* (Athens, 2000, Satellite meeting - *Developing language resources for minority languages: re-usability and strategic priorities*).
- Marra, P. (2005). Indagine sociolinguistica nella Grecia Salentina: « speculazioni » su una lingua in agonia. *Tesi di Laurea*, Facoltà di Lingue e Lett. Straniere, Università di Torino (Rel. A. Romano), a.a. 2004–2005.
- Profili, O. (1986). Description du système phonétique et phonologique du parler grico de Corigliano d'Otranto. *Studi Linguistici Salentini*, 14, 1–126.
- (1997). Le grico en Italie : peut-on soigner la contamination par la réanimation ? In N. Labrie (Ed.), *PLURILINGUA : Études récentes en linguistique de contact* (pp. 318–325). Bonn: Dümmler.
- (1999a). Η Αναζωογόνηση της Griko στην Grecia Salentina. In *Διαλεκτικοί Θύλακοί της Ελληνικής Γλώσσας, Ελληνική Δημοκρατία – Υπουργείο εθνικής παιδείας και θρησκευμάτων, Διεύθυνση διεθνών εκπαιδευτικών σχέσεων*. Αθήνα: Κέντρο Ελληνικής Γλώσσας.

- Profili, O. (1999b). Η Ελληνική στη Νότια Ιταλία. In *Διαλεκτικοί Θύλακοί της Ελληνικής Γλώσσας, Ελληνική Δημοκρατία - Υπουργείο εθνικής παιδείας και θρησκευμάτων, Διεύθυνση διεθνών εκπαιδευτικών σχέσεων*. Αθήνα: Κέντρο Ελληνικής Γλώσσας.
- Rohlf G. (1961). *Vocabolario dei dialetti salentini (Terra d'Otranto)*. München, Verlag der Bayerischen Akademie der Wissenschaften, 1958-61 (it. ed. Galatina, Congedo, 1976).
- Romano, A. (1999). Analyse des structures prosodiques des dialectes et de l'italien régional parlés dans le Salento: approche linguistique et instrumentale. *Thèse de Doctorat Sciences du Langage de l'Université Stendhal de Grenoble* (Lille, France, Presses Univ. du Septentrion, 2001).
- (2000). Convergence and divergence of prosodic subsystems of the dialects spoken in the Salento (Italy) - a linguistic and instrumental approach. *Proc. of the 1st ICLaVE* (Barcelona, Spain, 2000), 168-178.
- (2002). Grecia Salentina. Un caso ancora aperto. In V. Dell'Aquila, G. Iannàccaro & M. Stuflesser (Eds.), *Alpes Europa 2 - Soziolinguistica y language planning (Proc. of Alpes Europa II "Language Planning e Sociolinguistica"*, Urtijèi/St.Ulrich/Ortisei, Italy, 2002) (pp 235-244). Trento: Regione Aut. Trentino-Alto Adige, 2006.
- (2003). Uno spoglio fonetico della base di dati-audio « The Græcanic Lexicon » dell'Università di Patrasso. In A. De Dominicis et al. (Eds.), *Costituzione, gestione e restauro di corpora vocali* (Proc. of the XIV Giornate del GFS, Viterbo, Italy, 2003) (pp. 81-86). Roma: Esagrafica, 2004.
- (2008). Riflessioni preliminari sulla situazione linguistica della Grecia Salentina. In A. Romano & P. Marra (Eds.), *Il griko nel terzo millennio: « speculazioni » su una lingua in agonia* (pp. 13-47). Parabita (Lecce): Il Laboratorio.
- Romano, A., Manco, F., & Saracino, C. (2002). Un giorno a Martano: riflessioni sulla situazione linguistica della Grecia Salentina. *Studi Linguistici Salentini*, 26, 61-109.
- Seefeldt, M. M. (2003). Griko: Minority Language Revival and Maintenance in Italy's Grecia Salentina. *MA Thesis*, Univ. of California, Los Angeles (Rel. Alessandro Duranti).
- Trudgill, P. (2009). Greek dialect vowel systems, vowel dispersion theory, and sociolinguistic typology. *Journal of Greek Linguistics*, 9, 80-97.
- Vallée, N. (1994). Systèmes vocaliques : de la typologie aux prédictions. *Thèse de Doctorat en Sciences du Langage de l'Univ. Stendhal de Grenoble*.

Abstract

Cet article se propose de fournir une description acoustique du système vocalique des variétés de Griko parlées par des locuteurs de Calimera et Martano (Italie). L'analyse se base sur l'observation de la dispersion des valeurs fréquentielles des formants. Les mesures acoustiques ont été effectuées sur 220 voyelles accentuées d'une sélection de mots isolés prononcés par quatre informateurs. Les valeurs des formants ont été relevées sur les spectres acoustiques des timbres vocaliques et les résultats ont été comparés sur des diagrammes F_1 - F_2 et F_3 - F_2 . La dispersion générale confirme des aires d'existence similaires à celles qui ont été obtenues pour les mêmes phonèmes par O. Profili (1986) pour la variété de Griko parlée à Corigliano d'Otranto.

Sur la base de ces matériaux, l'étude offre une description acoustique préliminaire de deux systèmes à cinq voyelles légèrement différents.

Une comparaison a été menée également avec les données relevées pour le Grec Moderne par Arvaniti (1999) et Fourakis et al. (1999). De la même manière, les mesures effectuées ont été comparées à celles de réalisations vocaliques similaires des autres dialectes Salentins dans le but d'évaluer les éléments de convergence/divergence entre ces systèmes vocaliques. Même si nos résultats peuvent encore dépendre de caractéristiques idiosyncrasiques, il semblerait qu'une réalisation plus fermée de /e/ peut être considérée un élément typique du Griko de Calimera par rapport aux dialectes les plus méridionaux.