

ASKING QUESTIONS IN CORFU: AN INTONATIONAL ANALYSIS*

MARIA GIAKOUMELOU
DIMITRIS PAPAACHARIOU
University of Patras

The aim of this paper is to provide an overview of the prosodic marking of polar questions in the Corfiot dialect. More specifically, we aim at comparing the intonation of polar questions in two different varieties spoken in Corfu, namely the variety spoken in the city of Corfu (CC) and the variety spoken in the villages of the South (SC). Our corpus consists of conversational data, the aim being to investigate both the questions' melodies and their conversational functions (cf. Papazachariou 2004). Our preliminary findings showed that the two varieties differ from each other as well as from SMG in terms of the melodies used for polar questions. Furthermore, the tonal analysis of the contours reveals two different intonation patterns in each variety which correspond to different conversational meanings.

1 Introduction

The aim of this paper is to provide an account of the prosodic marking of polar questions in the Corfiot dialect, a dialect spoken in Corfu, an island at the North-west of mainland Greece. Although a sufficient amount of research has focused on polar questions in SMG, only limited research has investigated polar questions in Modern Greek dialects (see, e.g., Papazachariou 1998, 2004). Most importantly, no relevant study has been devoted to the Corfiot dialect. This lack of interest might be attributed to the fact that it was only recently that Modern Greek dialects came to the center of the interest of the scientific community in and outside Greece. In this study we take a first step in the direction of filling this gap.

The present study has been conducted in the Autosegmental and Metrical Framework (henceforth AM; Pierrehumbert 1980, Beckman & Pierrehumbert 1986, Ladd 1996). In this

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Corresponding Authors: mgiakoumelou@upatras.gr (Maria Giakoumelou), papaz@upatras.gr (Dimitris Papazachariou)

model, a melody is represented as a sequence of distinctive tonal levels, namely L and H tonal targets. Tones, which can be either monotonal (L or H) or bitonal (combinations of H and L), are seen as autosegments which associate with the segmental string in two ways: with metrically strong syllables and with phrase edges. Tones associated with stressed syllables are called *pitch accents* and their function is to enhance the prominence of these syllables. Pitch accents are marked with a star ‘*’ as a diacritic. Tones associated with phrasal boundaries can be of two types: *boundary tones*, which demarcate the boundary of an intonation phrase and are marked with a percentage ‘%’ as a diacritic, and *phrase accents*, which demarcate the boundary of an intermediate phrase, and are marked with a ‘-’ as a diacritic. Therefore, following an AM analysis, an intonation phrase is analyzed as a string of at least one pitch accent, a phrase accent and a boundary tone.

Regarding the polar question intonation in SMG, there is unanimity among researchers (independently of the framework they adopt) concerning its general pattern. In particular, the intonational properties that characterize the default melody are a *low pitch* on the focused word of the question, and a *rise-fall* at the end of the intonation phrase (see Arvaniti 2009 and the references therein). Depending on the position of the word in focus, the melody of polar questions may have two different realizations (Arvaniti *et al.* 2006a, 2006b; Arvaniti 2009). These two realizations are illustrated in Figures 1 and 2. In Fig. 1, the focused word *θelis* appears in the beginning of the utterance and the melody is realized as a low level stretch that extends from the stressed syllable of the word in focus to the onset of the last stressed syllable in the utterance. At this point a rise begins that reaches a peak towards the end of this stressed syllable and is followed by a fall. In Fig. 2, the focused word *ροδονερο* appears at the right edge of the utterance. The stressed syllable is low and an abrupt rise and fall appears at its last syllable.

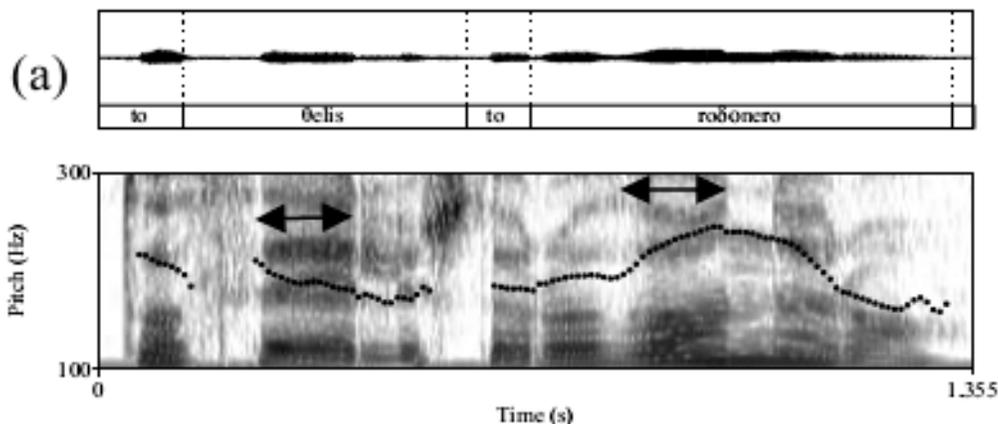


Figure 1. Early focus (from Arvaniti 2009: 21)

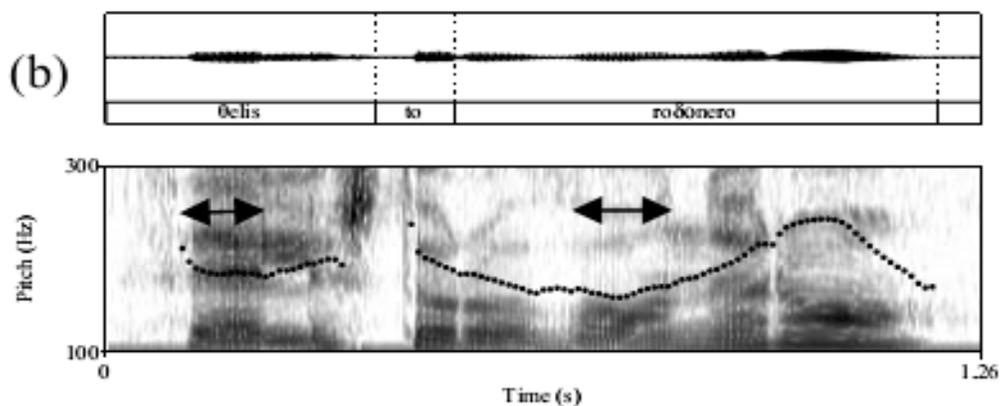


Figure 2. Utterance-final focus (from Arvaniti 2009: 21)

Building upon the above analysis of the polar question intonation in SMG, this paper seeks to describe and compare the intonation of polar questions in two different varieties spoken in Corfu, namely the variety spoken in the city of Corfu (CC) and the variety spoken in the villages of the South (SC). A further important question of this paper is whether there is variability within the same variety in terms of the contours used in different conversational contexts.

2 The Corfiot dialect

This section gives a brief background on the Corfiot dialect. The dialect is spoken in Corfu island and belongs to the Heptanesian dialect (Kontossopoulos 2006:67). Due to the long occupation of the island by the Venetians (1386-1797 AD), the dialect was strongly influenced by the Italian variety of Veneto. This influence led to a long-lasting period of *bilingualism* inside the city of Corfu. The variety of Veneto was spoken by the nobles in order to gain prestige.

The Corfiot dialect was also influenced by the Greek dialects of Epirus and Peloponnese, due to immigration. Since the Ottoman occupation of Greece, many people from Epirus and Peloponnese have migrated to Corfu (the entire island) searching for better living conditions and for better working opportunities.

Interestingly, the Corfiot dialect and the linguistic situation inside the island have never been systematically studied. A few amateur and sporadic studies, focusing mainly on the history and the society of the island (e.g., Salvanos 1918, Laskari 1998), report that the dialect is divided into two major varieties; the varieties spoken in the city of Corfu, influenced by the prestigious Venetian dialect, and the varieties spoken in the rural areas, which remained “pure” and unaffected by foreign influences due to geographic and socio-political facts.

In our recent study of the dialectal situation and geographical variation in the island of Corfu, we showed that there is greater variability within Corfu than previously assumed (Giakoumelou & Papazachariou 2012). By employing qualitative and quantitative methods, i.e. conversational evidence extracted from a corpus of free conversations, as well as structured questionnaires about linguistic variability inside Corfu and Corfiots’ attitudes towards this variability, four major varieties were identified: Corfiot of the city, Northern Corfiot, Middle Corfiot and Southern Corfiot. We found that the four varieties can be distinguished on the basis of

intonation, pronunciation and vocabulary (e.g., more Italian words in the town, more Ancient Greek words in the South). According to the informants' judgments, Southern Corfiot is the most salient variety, whereas the varieties of the city, Middle and North have minor differences. This might be attributed to the general lifestyle of the people of the South. Southern Corfiots are characterized by the informants as autonomous, "villagers" and uneducated, as different from the other Corfiots in terms of lifestyle, and even in terms of looks. In the same spirit, their variety is characterized as rural, "heavy" and funny, judgments obviously based on imposed social norms, or social connotations (see Trudgill & Gilles 1978). On the other hand, the rest of the Corfiots, and especially the Corfiots of the city are characterized as educated, cultured, original and refined, and their variety as melodic and pleasant. These Corfiots' judgments about the dialectal situation in the island were the starting point for our study. In the paper, we investigate whether the above locals' perceptions about the linguistic situation in Corfu correspond to the real linguistic diversity in the island. In doing so, we compare polar questions' melodies from the city of Corfu (urban prestigious variety) and from a large village of the South (Argyrades).

3. Methodology

The data for the present study come from recordings of spontaneous conversations, which were held in the city of Corfu¹ and in the South (2 recordings in each city). All of our informants were born and raised in the city of Corfu and south Corfu (Argyrades) respectively. Two female and one male speakers of each variety participated in our study. The age of the informants for the former variety ranges from 20 to 65 years and for the latter from 42 to 60 years. The fieldworker used ethnographic methods in order to record casual speech in everyday social settings, using in both places local intermediaries who shared strong family and social ties with the informants. The recordings were held at the informants' places, in order that they feel more comfortable with the procedure and to achieve naturalness in conversation. For the recordings we used a portable Fostex FR-2LE digital recorder and two AKG C 680 BL microphones. The sound files have been transcribed and analyzed using Praat (Boersma and Weenink 2013). The transcription has been mainly based on the visual observation of F_0 .

Before proceeding to the analysis, a few methodological clarifications are in order. It has to be noted that our material lacks homogeneity, because the data obtained consist of conversational, not pre-structured utterances. In addition, we did not perform experiments based on controlled utterances, which affects the comparability of data across varieties. As a result, the degree of accuracy of the description of the intonational structure of the contours diminishes. Furthermore, we detected a certain degree of complexity in tonal movements at the end of intonation phrases of both varieties. In order to account for complex pitch trajectories, we incorporate bitonal and tritonal boundary tones, and not a phrase accent² followed by a boundary tone (see also Estebas-Vilaplana and Prieto 2008, Prieto and Roseano 2010).

¹ One of the recordings was taken from the database of the Laboratory of Modern Greek Dialects, University of Patras.

² Phrase accents are the most controversial tonal categories. For discussion on this issue see Grice et al 2000, Ladd 1996, Frota 2002, Gussenhoven 2004.

4. Contours of CC and SC polar questions

This section analyzes the contours of polar questions detected in our corpus, from both the City and Southern Corfu. Our analysis of polar question intonation in the two varieties of Corfu results in two different intonation patterns in each variety. Since we are dealing with interactional conversational data, our aim is to try to explain variation of contours with respect to their context, and relate the different patterns to different conversational meanings. Thus, our hypothesis is that the conversational background of the speakers, into which every question is embedded, provides evidence for the speakers' choice of a specific intonation pattern.

4.1 Corfiot of the City

The tonal analysis of polar questions in the Corfiot of the city reveals two different intonation patterns: a rising-falling pattern and a low-rising pattern.

The rising-falling pattern was detected in the majority of the questions analyzed, i.e. 28 out of 32 cases. It involves a rising nuclear pitch accent, followed by a falling boundary tone, concatenated by a high F0 plateau (Fig. 3).

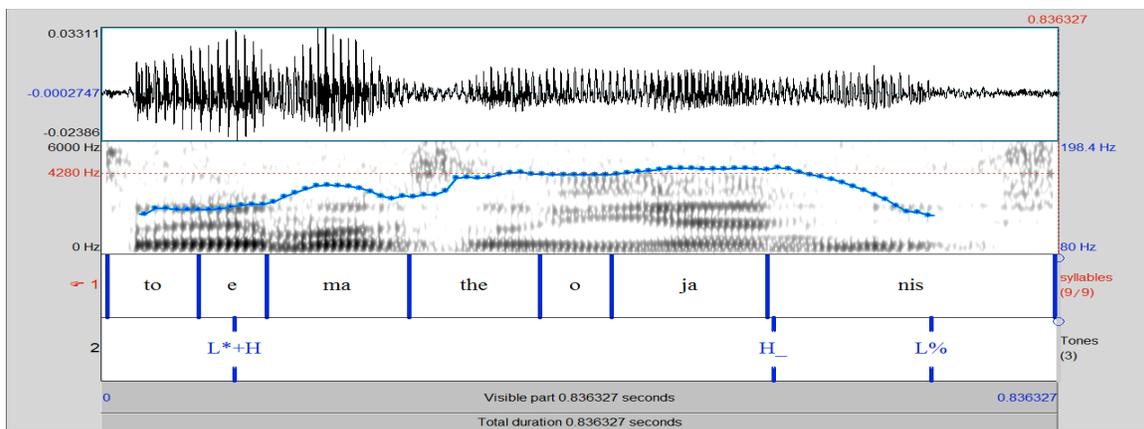


Figure 3. The rising-falling pattern in CC.

This example 'Did John learn it?' illustrates a typical contour of polar questions in the Corfiot of the City. The low target of the rising nuclear pitch accent is realized on the stressed antepenultimate syllable of the focused word *emathe* "learned", and the high target on the penultimate syllable. After the pitch accent, a high F0 plateau follows, extending up to the onset of the last syllable in the phrase.

The low-rising pattern was detected in 4 questions of our corpus. It involves a low nuclear pitch accent, followed by a rise from a low target to a high target. This is illustrated in Fig. 4.

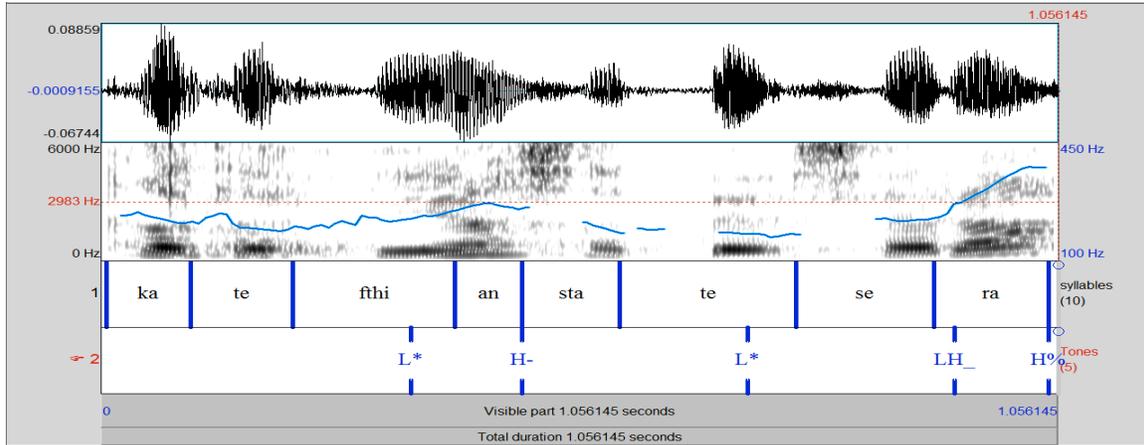


Figure 4. The low-rising pattern in CC.

This example ‘*Directly, in four (years)?*’ displays a typical polar question with low-rising intonation. The L* nuclear pitch accent is realized on the antepenultimate syllable of the phrase final word *tessera* “four”. After the pitch accent, a rise follows which extends up to the beginning of the vowel of the last syllable. In the last vowel, a further rise to an extra high target is observed.

The following passage is part of a conversation between two old schoolmates (Sp1 and Sp2) that have not met each other for several months. In what precedes the passage, Sp1 talks Sp2 about the English lessons she attends and the effort she makes in order to be properly prepared for her certificate exams. Sp1 knows that Sp2 has been attending German language lessons and is going to take certification exams. This passage starts with Sp1 asking Sp2 whether she took the examinations or not (line 1).

- (1) **Sp1.** 1.1 **Esi? Edoces ja ta jermanika su?**
 L*H H_L%
- What about you? Have you taken your German certification exams?
- Sp2.** 1.2 (...) ne.
 (...) yes
- Sp1.** 1.3 **Esoles esi psiXi mu cesi. Kati ine cafto. Ela ne. Na tejoni o athropos me**
 1.4 **merika pramata na min eXi ola sto cefali tu.**
 You finally finished my dear. This is something. Come on. (It’s nice) to finish
 with some stuff, to relax.
- Sp2.** 1.5 **(Den teliosa akoma).**
 (I have not finished yet).
- Sp1.** 1.6 **Tha docis ce ja to alo? Oooooo! Xara sto kurajo su psiXi mu!**
 L*H_H%
- Will you take the examination for the other too? Oooooh! I admire your
 courage my dear!

With the question in line 1, Sp1 is obviously asking for new information, since such the particular has not been mentioned anywhere before in the conversation, and Sp1 doesn’t have a situational or conversational clue so as to predict the answer. The melody of this question

matches the first pattern, i.e. it is rising-falling. In what follows, Sp2 responds positively, by stating that she took the exams (line 2) and Sp1 congratulates her for her success and underlines the positive aspects of this success (lines 3-4). Unexpectedly, Sp2 tells her that she has not finished yet (line 5), implying that she is going to continue for the more advanced level. As is obvious from her reactions, Sp1 did not expect that Sp2 intended to continue. In fact, she was pretty sure that after taking the examination, she would stop. As a matter of fact, she asks a question, from which however she does not expect new information, because she already knows the answer. Her intention is to express her surprise about Sp's 2 decision to continue. Other cues which strengthen the interpretation of the question as a surprise question³, are the immediately following “surprise reaction token⁴” *Ooooooh!*, as well as her assessment *I admire your courage!*. The melody of question in line 6 matches the second intonation pattern attested in the Corfiot of the City, i.e. the low-rising pattern.

We may conclude that the first pattern (rising-falling) is used when the speaker asks for information and cannot predict the answer. The second pattern (low-rising) seems to be used in order to express surprise.

4.2 Southern Corfiot

The tonal analysis of polar questions in the South Corfiot also reveals two different intonation patterns; a low-rising-falling to a mid-level pattern and a low-rising pattern.

The low-rising-falling to a mid-level pattern was detected in the majority of the questions analyzed, i.e. 19 out of 23 cases. It involves a low nuclear pitch accent, followed by a gradual rise from a low target or a low plateau to a high target, and then a small fall of about 20 Hz average to a mid-level tone, which is analyzed as a downstepped high target. This is illustrated in Fig. 5.

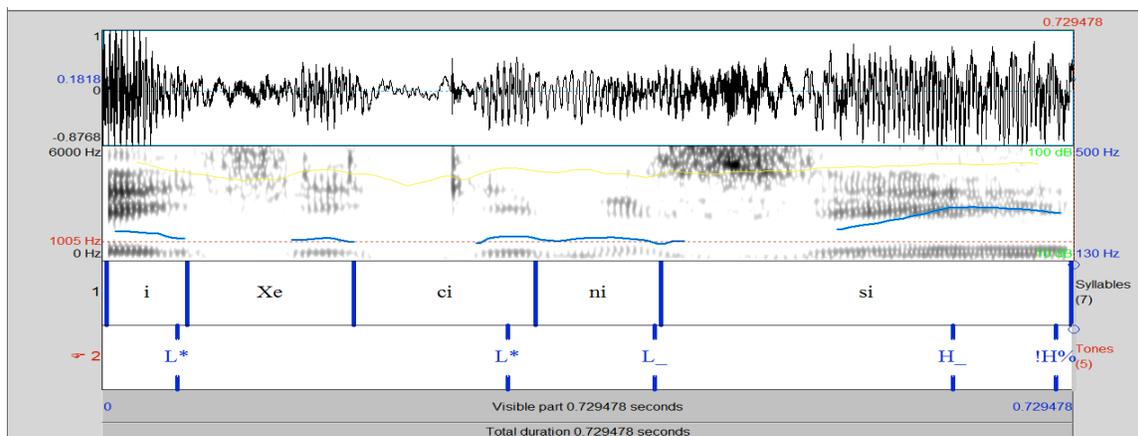


Figure 5. The low-rising-falling to a mid-level pattern in SC.

The example ‘Have you met traffic jam?’ illustrates a typical contour of polar questions in South Corfu. The L* nuclear pitch accent is realized on the antepenultimate syllable of the phrase final

³ For questions displaying surprise and their prosodic marking, see Selting (1996).

⁴ Wilkinson & Kitinger (2006) use the term “reaction tokens” to refer to such expressions of surprise.

word *cinisi* “traffic jam”. After the pitch accent, a low F0 plateau follows which rises at the last syllable of the phrase to a high target, and a small fall. What is noteworthy is the very long duration of the last syllable.

The low-rising pattern was detected in 4 questions of our corpus. It involves a low nuclear pitch accent, followed by a rise from a low target or a low plateau to a high target. This is illustrated in Fig. 6.

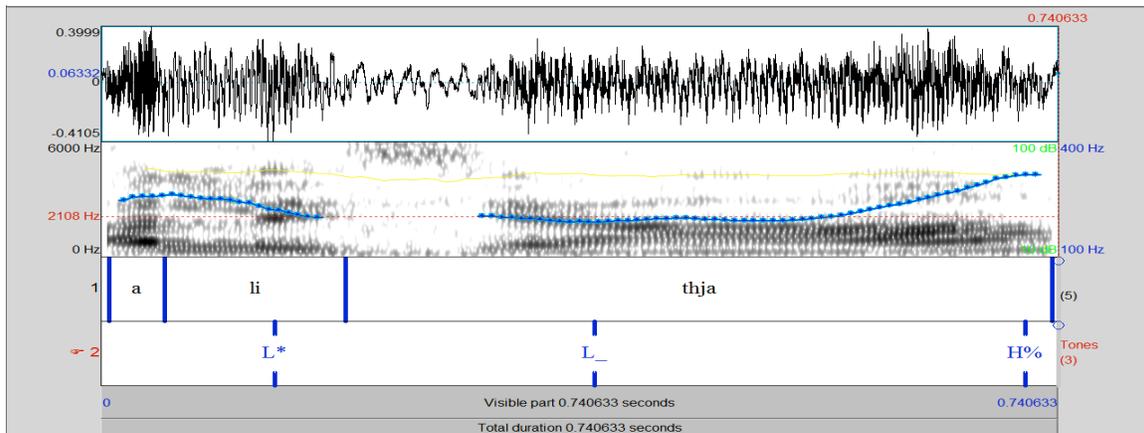


Figure 6. The low-rising pattern in SC.

This example ‘*Really?*’ displays a typical contour of polar questions with low-rising intonation. The L* nuclear pitch accent is realized on the penultimate syllable of the word. After the pitch accent, a rise follows from a very long low F0 plateau to a high target. In the last vowel, one can observe a further rise to an extra high target. What is noteworthy is the extremely long duration of the last syllable.

The following passage is part of a conversation between two friends. They are discussing cultural events that the cultural center of their village is going to organize. More specifically, they are discussing a play that is going to be performed. The passage begins with Sp’s1 unwillingness to participate in such events. She then asks Sp2 whether she knows if a common friend of them is going to have an active role.

- (2) Sp1. 1.1 **Ego den ksero, den asxolume mafta ta spor. Ine spor ja mena poli...banal.**
I don’t know, I am not involved in these stuff. They are too.. banal for me.
- 1.2 **Tha peksi ce i ali?**
L* L* L_H_H%
Will she also take part?
- Sp2. 1.3 **Pja ?**
Who ?
- Sp1. 1.4 **i (...)**
the (...)
- Sp2. 1.6 **Den ksero.**
I don’t know

The question in line 2 is a typical example of an information-seeking polar question. Sp1 is asking for information, and she has no expectations about the answer. The melody of the question in line 2 matches the first intonation pattern for South Corfiot, i.e. low-rising-falling to a mid-level.

The context of a typical example of the second pattern (i.e. low-rising) of polar questions in South Corfiot is given in (3). In this passage, the two interlocutors are talking about the casting for a theatrical play, in which Sp1 wanted to participate but she has not been chosen by the director.

- (3) **Sp1.** 1.1 **I vasilisa ine I Mersini ce o vasiljas ine o Alekos, e?**
Mersini is the queen and Alekos the king, aren't they?
- Sp2.** 1.2 **oXi.**
No.
- Sp1.** 1.3 **Etsi ematha.**
That's what I learned.
- Sp2.** 1.4 **O Daovas ce i Kostula.**
Daovas and Kostula
- Sp1.** 1.5 **Alithjia? Ce I Mersini ti eXi?**
L* H_H%
Really? And what about Mersini?
- Sp2.** 1.6 **Tin Titania.**
(She's) Titania
- Sp3.** 1.7 **(long pause). Telospanton.**
(long pause). Anyway.

In the beginning of the passage, Sp1 asks Sp2 to confirm the rumours concerning the leading roles for the new play, but Sp2 does not. In what follows (lines 1-4), Sp2 reveals the actors that will lead the cast. This new information comes as a surprise to Sp1, who linguistically marks this feeling by the question *alithjia?* (line 5). This question does not have an informative function, as the speaker already knows the answer, but clearly shows her astonishment; she was absolutely sure that Mersini would have taken the role, as is obvious from her next question, whereby she asks which role she will perform. After Sp's 2 reply, there is an extended pause, which possibly indicates Sp's 1 disapproval (see Wilkinson & Kitzinger 2006) and she ends the conversation with a condescending expression.

To sum up, the analysis of the two contexts show that the low-rising-falling to a mid-level pattern is the typical contour for information-seeking questions in South Corfiot, whereas the low-rising pattern conveys a special conversational meaning, namely it expresses surprise.

5. Final Remarks

In the present paper, we intended to provide an overview of the intonation of polar questions in Corfiot dialect. More specifically, we compared the melodies of polar questions in two different varieties spoken in Corfu, the variety spoken in the city of Corfu and the variety spoken in the villages of the South. Our preliminary findings showed that the two varieties differ from each

other as well as from SMG in terms of the melodies used for polar questions. Furthermore, the tonal analysis of polar questions contours in both varieties revealed two different intonation patterns in each variety. Due to the nature of our data, namely conversational data, we tried to map the different patterns onto different conversational meanings.

In Corfiot of the City, the first pattern that was detected in the majority of the questions analyzed is the *rising-falling* pattern. This melody consists of a rising nuclear pitch accent, followed by a falling boundary tone, concatenated by a high F0 plateau; it is used in information-seeking questions (Fig. 7a). The second pattern -that was detected only in few questions in our corpus- is the *low-rising* pattern. This melody consists of a low nuclear pitch accent, followed by a rise from a low target to a high target; it is used in surprise-questions (Fig. 7b).

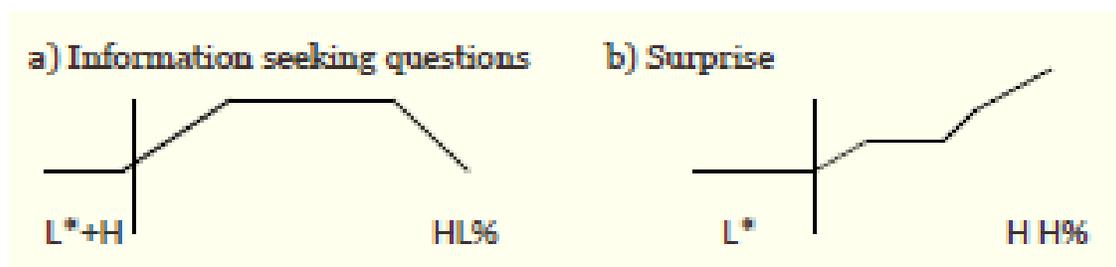


Figure 7. Corfiot of the city: 2 different intonation patterns

In South Corfiot, the pattern that was detected in the majority of the questions analyzed is the low-rising-falling to a mid-level pattern. This pattern consists of a low nuclear pitch accent, followed by a gradual rise from a low target or a low plateau to a high target, and then a small fall of about 20 Hz average to a mid-level tone; it is used in information-seeking questions (Fig. 8a). The second pattern is the low-rising pattern. It consists of a low nuclear pitch accent, followed by a rise from a low target or a low plateau to a high target; it is used in surprise-questions (Fig. 8b).

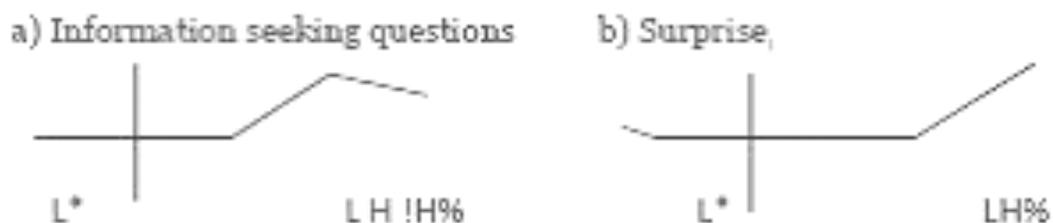


Figure 8. Southern Corfiot: 2 different intonation patterns

Our findings provide a preliminary account of the prosodic marking of polar questions in the two different varieties of Corfiot and their conversational meanings. An analysis of a larger corpus of conversational data is definitely called for, in order to obtain a more holistic view of the issues addressed in this paper. A wider corpus could provide us with a more comprehensive database, from which a greater variety of contours could be extracted leading to a possible proliferation of

the pragmatic meanings linked to these contours. Last but not least, our analysis could be supplemented by controlled experimental data, which will increase the degree of accuracy of the description of the intonational structure of the contours and will provide us with comparable data across the varieties.

References

- Arvaniti, Amalia. 2009. Greek intonation and the phonology of prosody: polar questions revisited. *Proceedings of the 8th International Conference on Greek Linguistics*, 14-29.
- Arvaniti, Amalia, D. Robert Ladd and Ineke Mennen. 2006a. Phonetic effects of focus and ‘tonal crowding’ in intonation: evidence from Greek polar questions. *Speech Communication* 48(6):667-696.
- Arvaniti, Amalia, D. Robert Ladd and Ineke Mennen. 2006b. Tonal association and tonal alignment: evidence from Greek polar questions and emphatic statements. *Language and Speech* 49: 421-450.
- Baltazani, Mary. 2006d. Evidence for the L- phrase accent from polar questions in Greek and the structure of non-final intermediate phrases. Paper presented at TIE2, September 7-9. Berlin.
- Baltazani, Mary and Sun-Ah Jun. 1999. Focus and topic intonation in Greek. *Proceedings of the XIVth International Congress of Phonetic Sciences*, vol. 2:1305-1308.
- Beckman, Mary E. & Janet B. Pierrehumbert. 1986. Intonational structure in Japanese and English. *Phonology* 3: 255-309.
- Boersma, Paul & Weenink, David. 2013. Praat: doing phonetics by computer [Computer program]. Version 5.3.49, retrieved 13 May 2013 from <http://www.praat.org/>
- Estebas Vilaplana, Eva & Pilar Prieto. 2009. La notación prosódica en español. Una revisión del Sp_ToBI. *Estudios de Fonética Experimental* XVIII:263-283.
- Frota, Sonia. 2002. Tonal association and target alignment in European Portuguese nuclear falls. In *Laboratory Phonology 7*, eds. Gussenhoven, Carlos and Natasha Warner, 387-418. Berlin, NY: Mouton de Gruyter.
- Giakoumelou, Maria and Dimitris Papazachariou. 2012. Variety within variety: The linguistic landscape of the Corfu Island. Paper presented at the Sociolinguistics Symposium 19, August 20-24. Berlin.
- Grice, Martine, D. Robert Ladd and Amalia Arvaniti. 2000. On the place of phrase accents in intonational phonology. *Phonology* 17:143-185.
- Gussenhoven, Carlos. 2004. *The Phonology of Tone and Intonation*. Cambridge: Cambridge University Press.
- Kontossopoulos, Nikolaos. 2006. *Dialektoi kai idiomata tis Neas Ellinikis*. 4th edition. Athens: Gregoris Publications.
- Ladd, D. Robert. 1996. *Intonational phonology*. Cambridge: Cambridge University Press.
- Laskari, Nineta. 1998. *Kerkira: Mia matia mesa ston xrono*. Athens: Sideris.
- Papazachariou, Dimitris. 1998. Language Variation and the Social Construction of Identity: The Sociolinguistic Role of Intonation among Adolescents in Northern Greece. Doctoral Dissertation, University of Essex.
- Papazachariou, Dimitris. 2004. Intonation variables in Greek polar questions. In *Regional Variation in Intonation*, eds. Gilles, Peter and Jörg Peters. Tübingen: Max Niemeyer Verlag.

- Pierrehumbert, Janet. 1980. The phonetics and phonology of English intonation. Doctoral Dissertation, MIT.
- Prieto, Pilar and Paolo Roseano. 2010. *Transcription of the Intonation of the Spanish Language*. Munich: Lincom
- Salvanos, Gerasimos. 1918. *Meleti tu glossiku idiomatos ton en Kerkira Argiradon*. En Athinai.
- Selting, Margret. 1996. Prosody as an activity-type distinctive cue in conversation: the case of so-called 'astonished' questions in repair initiation. In *Prosody in Conversation. Interactional Studies*, eds. Couper-Kuhlen, Elizabeth and Margret Selting, 231-270. Cambridge and New York : Cambridge University Press.
- Trudgill , Peter and Howard Gilles. 1978. Sociolinguistics and linguistic value judgments: correctness, adequacy, and aesthetics. In *Functional Studies in Language and Literature*, eds. Coppiertes, Frank & Didier L. Goyvaerts, 167-190. Ghent: Story Scientia.
- Wilkinson, Sue & Celia Kitzinger. 2006. Surprise As an Interactional Achievement: Reaction Tokens in Conversation. *Social Psychology Quarterly* 69 (2):150–182.