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**Intonation and diachrony: A phonetic investigation of the effects of language contact on intonational patterns.**

**Started: 1 June 2018 Ended: 31 March 2022 Duration: 46 months**

**Abstract**

The way we speak is influenced by factors such as age, sex, where we grow up and social interactions over our lifetimes. Most people know that regional dialects may use different words (a 'bread roll' is a 'cob' in the East Midlands) or vary in individual sounds (Londoners tend to pronounce 'think' as 'fink'), but are generally not aware of differences in intonation, the melody of speech. For example, in Southern British English the sentence “Jack did It”, ending with the voice going down, signals a statement, but when the voice goes up it signals a request for confirmation. In Belfast English a rising pitch signals both meanings. Therefore, our speech patterns reveal not only what we want to put across, but also a speaker's language or region. Studying those differences has the power to uncover past and present ethnic interactions.

This research studied the intonation of speech melodies from regions where Greeks lived alongside speakers of Turkish and speakers of Italian. Our main goal was to find out what the differences in the details of those melodies tell us about the nature of contact between these populations. We analysed recordings from existing data bases, both archival and contemporary ones. The project used a mathematical process of modelling the intonation of the melodies used by the speakers to compare statements and questions in these languages.

We found that the modern-day Asia Minor Greek dialect hailing from the Anatolian peninsula (modern Turkey) has Turkish traits, even though Asia Minor Greek speakers were not in contact with Turkish any longer. This finding shows that a contemporary dialect is a window to the past: it shows that the Greek and Turkish communities had not only co-existed, but they closely interacted. Specifically, we found that Turkish traits were strongly present in the speech of first-generation Asia Minor Greek refugees who fled to Greece in 1924 but gradually diminished in subsequent generations—in the speech of the great grandchildren of the original refugees they had become very weak due to the influence of the surrounding Greek language.

We also analysed the intonation of Greek in Crete, where Venetian Italian speakers lived from the 13th to the end of the 17th century. This study revealed that the Venetian traits in Cretan intonation remain strong even today, four centuries after the end of contact between these two populations, without the signs of weakening found in Asia Minor Greek.

The results of the two studies taken together show that the results of contact vary according to factors such as sociolinguistic circumstances. The Asia Minor Greek speakers are losing the Turkish-like traits in their speech because of the move to a mostly Greek-speaking population. On the other hand, Cretan speakers never moved from their land and lived in their island, relatively isolated from the mainland, and therefore retained and incorporated the Venetian-Italian traits in their speech, making them a characteristic part of their dialect.

Notes

The .wav files included in these folders are short extracts from bigger recordings, small fragments of corpora from which they were extracted. They are not simply copies of corpora but our own processed files.

All our data sources were digital, in a variety of formats (e.g., mp3, mp4 and .wav PCM; 2-channel or monophonic), bit rates or sampling rates (e.g., 44.1 kHz, 22.05 kHz, or 16 kHz). Additionally, some digital recordings made from ¼ inch tape, recorded at different tape speeds, required speeding up or slowing down by a factor of 2 or ½ to restore the correct original recording rate. A small number of such digitised tape recordings ran backwards on one channel, as the tape spool had originally been turned over for the second half of a monophonic recording, but it had been digitised as if it were a 2-track stereo recording.

To permit for the subsequent functional data analysis steps to be performed as batch computations, we converted all the recordings to 16 kHz, monophonic, uncompressed PCM .wav audio files. Each of the resulting .wav files included here contain only the “Region of Interest” interval from each recording: this interval is a stretch from one to three syllables, depending on the variety and stress position (antepenultimate, penultimate, or final).