

# Intonational variation and diachrony: Greek contact varieties

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## 1. Introduction

Is past language contact reflected in intonation patterns?

We address this question in a 3 ½ year project investigating Greek dialectal speech from (a) Crete, Corfu and Cyprus, where Greeks lived alongside Venetian speakers; (b) mainland Greece communities whose ancestors lived in present-day Turkey.

The tunes we investigate are **declaratives**, continuation rises and yes-no questions.



# 2. The corpora

Contemporary and archival audio corpora of 410 hours of speech from Asia Minor, Crete, Cyprus and Corfu, as well as Athens, Turkey and Veneto (see map).

**Recordings:** reading passages, dialogues, map tasks and interviews with single or multiple informants, converted to 16 kHz, monophonic, uncompressed PCM .wav files.

### Informants' ages: 20 to 94 years.

**Sources**: Bibliothèque Nationale de France, Endangered Languages Archive (SOAS), Humboldt Universität Lautarchiv, The Academy of Athens, The British Library and The Committee for Pontic Studies.

Two dimensions: (1) synchronic comparison of contact 📝 of Greek with their contextual languages and dialects Athenian (see section 3 below) (2) Diachronic comparison testing the robustness of contact effects over 4 generations, born 1900s-1990s (see section 4 below)



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### **3. Synchrony: Turkish and Venetian traits in Greek regional speech**

Autosegmental-Metrical model [6,7] to delimit the region of interest. The  $f_0$  is measured every 10ms with ESPS *get\_f0* function and the intonation curves are modelled fitting a 4<sup>th</sup> order Legendre polynomials [3]. This approach augments the abstract Autosegmental-Metrical analysis, allowing comparisons of entire pitch curves rather than merely their pre-categorised components such as pitch accents and edge tones.





![](_page_0_Figure_24.jpeg)

### 4. Diachrony: Cappadocian Greek over four generations

The utterances end with a low boundary tone, but there are .29;  $\sigma$ : 13.4; p < .01) differences in the shape of the fall and its alignment with or the Cretan slope phonological landmarks. (μ: -3.7; σ: 29.2) [1].

Following the Lausanne Treaty on population exchanges (1923), the ethnically Greek speakers of the dialect were expelled from Turkey. Their descendants settled in northern Greece, no longer in contact with Turkish. Cappadocian Greek, as spoken today by heritage speakers, will be compared with Turkish and Athenian to establish distance between the varieties. A longitudinal study of the robustness of contact effects will be carried out over 4 generations.

![](_page_0_Figure_28.jpeg)

closely aligned with the

nucleus.

Time (s)

Audio, recorded 1927, at: https://gallica.bnf.fr/ark:/12148/bpt6k129226q/f1.media question θa '**θe**late 'enaŋ ka'fe 'Would you like a coffee?' particle.

### References

[1] Baltazani, M., Przedlacka, J., Coleman, J. 2019. Intonation in contact: Athenian, Cretan and Venetian declaratives. Paper presented at 3<sup>rd</sup> PaPE, Lecce, Italy. [2] Baltazani, M., Przedlacka, J., Coleman, J. 2019. Intonation in contact: Asia Minor Greek and Turkish. ICPhS2019. [3] Grabe, E., G. Kochanski & J. Coleman. 2007. Connecting intonation labels to mathematical descriptions of fundamental frequency. Language and Speech 50(3), 281-310. [4] Göksel, A. & Kerslake, C. 2005. Turkish: A comprehensive grammar. Routledge. [5] Sato, K. 2009. The relation between prosody and focus in yes/no question of Turkish. In Turkologica 79: Proceedings of ICTL 2008, 23-29. [6] Ladd, D. R. 2008. Intonational Phonology. Cambridge. [7] Pierrehumbert, J. B. 1980. *The phonology and phonetics* of English intonation. PhD dissertation, MIT.

https://greekincontact.phon.ox.ac.uk/

5. Future plans

Compare 4 contact Greek dialects — 2 historically in contact with Turkish, 2 with Venetian — along chronological and synchronic axis.

Track diachronic changes in intonation by comparing contemporary and older recordings from the beginning, middle and late decades of the 20th century. Develop a model of longitudinal change in prosody, the findings might be applicable to other contact varieties.

The polynomial modelling of intonation allows less labour intensive/costly and more reliable analyses of large datasets, which is applicable to corpora work.

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