

Simple Kostakis: A Tsakonian orthography proposal for the early digital era

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Abstract

This paper presents the Simple Kostakis orthography, a proposed standardized writing system for the critically endangered Tsakonian language of Greece. While the existing Kostakis orthography provides academic precision through diacritical marks, its reliance on specialized characters creates significant barriers for digital communication and widespread adoption. The Simple Kostakis system addresses this challenge by establishing a one-to-one correspondence with Kostakis orthography while using only standard Greek alphabet characters, digraphs and trigraphs. This approach synthesizes elements from existing orthographic systems while prioritizing digital accessibility, phonetic precision, and compatibility with established linguistic documentation and future technological advancements. The proposed system aims to facilitate broader participation in written Tsakonian communication, support the development of digital language tools, and contribute to revitalization efforts for this unique linguistic heritage in contemporary environments.

Περίληψη

Το παρόν άρθρο παρουσιάζει την ορθογραφία Απλό Κωστάκη, ένα σύστημα γραφής για την κρίσιμως απειλούμενη Τσακόνικη γλώσσα της Ελλάδας. Ενώ η υπάρχουσα ορθογραφία Κωστάκη προσφέρει ακαδημαϊκή ακρίβεια μέσω διακριτικών σημείων, η εξάρτησή της από εξειδικευμένους χαρακτήρες δημιουργεί σημαντικά εμπόδια στην ψηφιακή επικοινωνία και την ευρεία υιοθέτηση. Το σύστημα Απλό Κωστάκη αντιμετωπίζει αυτή την πρόκληση καθιερώνοντας αντιστοιχία ένα προς ένα με την ορθογραφία Κωστάκη, χρησιμοποιώντας μόνο χαρακτήρες του τυπικού ελληνικού αλφαβήτου, διγράμματα και τριγράμματα. Αυτή η προσέγγιση συνθέτει στοιχεία από υπάρχοντα ορθογραφικά συστήματα, δίνοντας προτεραιότητα στην ψηφιακή προσβασιμότητα, φωνητική ακρίβεια και συμβατότητα με καθιερωμένο γλωσσολογικό υλικό και μελλοντικές τεχνολογικές εξελίξεις. Το προτεινόμενο σύστημα στοχεύει να διευκολύνει την ευρύτερη συμμετοχή στην γραπτή Τσακόνικη επικοινωνία, να υποστηρίξει την ανάπτυξη ψηφιακών εργαλείων γλώσσας και να συμβάλει στις προσπάθειες αναβίωσης αυτής της μοναδικής γλωσσικής κληρονομιάς στο σύγχρονο περιβάλλον.

Keywords: Tsakonian language, Orthography, Low-resource languages, Digital compatibility, Minority languages

1 Introduction

The Tsakonian language is as a highly divergent variety of Greek spoken in southeastern coastal areas of the Tsakonian region of the Peloponnese. It is considered one of the most distinct dialects of Modern Greek, with unique phonetic, grammatical, and lexical features that set it apart from Standard Modern Greek (SMG). Tsakonian is generally believed to be rooted in the Doric dialect and has preserved archaic elements that have been lost in other Greek dialects (Kisilier, 2016).

The language is divided into three main varieties. The southern dialect is primarily spoken in the towns of Leonidio, Melana, Tyros, Pragmatefti, Sapounakeika and the nearby villages of Baskina and Sampatiki. The northern dialect is spoken in the towns of Kastanitsa and Sitaina. The last remaining branch, Propontis Tsakonian, was formerly spoken in the villages of Vatika and Havoutsis in the Marmara region of Turkey and is now extinct.



Figure 1: map of the Tsakonian dialects. Source: Liosis (2016)

Despite its longstanding history, Tsakonian language use experienced a sharp decline in the second half of the 20th century. The actual number of speakers varies significantly among reports, with speaker estimates ranging from 1000 (Nicholas, 2019) to 4000 speakers (Fedchenko, 2012). The degree of interference of Standard Modern Greek in Tsakonian speech must be taken into account, leading to speakers having a varying degree of proficiency in the language. This situation, combined with a reduced usage among younger generations has led to its classification as critically endangered by UNESCO's *Atlas of the World's Languages in Danger* (Moseley, 2010).

Some revitalization efforts have been undertaken, driven mainly by the Tsakonian Archives, an organization that publishes books and imparts lessons on Tsakonian language and culture, as well as local individuals. In parallel, the Tsakonian Digital project aims to foster the use of Tsakonian in digital spaces by providing resources and tools including a digital dictionary and AI translator models. Local communities acknowledge the language's value as a cultural heritage by their eagerness to share information about the language and the presence of Tsakonian signs in the area.

2. Brief overview of the Tsakonian orthography

One of the main challenges facing the Tsakonian language is the lack of a standardized and accessible orthography, which hinders its use in written communication and digital media. The Tsakonian orthography has undergone multiple revisions and adaptations over the years, reflecting the language's unique phonetic features. While written using the Greek alphabet as a base, Tsakonian contains several phonemes that are not present in Standard Modern Greek, necessitating the use of additional characters or diacritics to accurately represent these sounds. These are the following:

- the aspirated consonants /k^h/, /t^h/, and /p^h/,
- the postalveolar fricatives /ʃ/ and /ʒ/,
- the voiceless laminal dental affricate [t͡s̺],¹

¹ No documents surveyed by the author explicitly mention the exact IPA for this realization. Certain authors and speakers merge it with the lamino-apical alveolar affricate τσ [t͡s̺], while others prefer to set them apart without specifying its pronunciation, rendering it a matter of further research.

Character			Latin	IPA
Standard Modern Greek	Tsakonian			
		Kostakis	Simple Kostakis	
	Α — α		a	/a/
	Β — Β		v	/v/
	Γ — γ		g	/ɣ ⁽¹⁾ , /j ⁽²⁾ /
	Δ — δ		d	/ð/
	Ε — ε		e	/e/
	Ζ — ζ		z	/z/
	Ž — ž	ΖΖ — ζζ	zh	/ʒ/
	Η — η		i	/i/
	Θ — θ		th	/θ/
	Ι — ι		i	/i/
	Κ — κ		k	/k/
	Ķ — ķ	ΚΧ — κχ	kh	/k ^h /
	Λ — λ		l	/l/
	Μ — μ		m	/m/
	Ν — ν		n	/n/
	Ξ — ξ		x	/ks/
	Ο — ο		o	/o/
	Π — π		p	/p/
	Ṗ — ṗ	ΠΦ — πφ	ph	/p ^h /
	Ρ — ρ		r	/r/
	Σ — σ, ς		s	/s/
	Š — š, ś	ΞΞ — ξξ	sh	/ʃ/
	Τ — τ		t	/t/
	Ṫ — ṭ	ΤΘ — τθ	thh ⁽³⁾	/t ^h /
	Ŝ — ŝ	ΣΣ — σσ ⁽⁴⁾	ss ⁽³⁾⁽⁴⁾	[s̺]
	Υ — υ		y	/i/
	Φ — φ		f	/f/
	Χ — χ		ch	/x ⁽¹⁾ , /ç ⁽²⁾ /
	Ψ — ψ		ps	/ps/
	Ω — ω		o	/o/

Notes: ⁽¹⁾: before /a/, /o/ or /u/; ⁽²⁾: before /e/ or /i/;
⁽³⁾: proposal to be further discussed; ⁽⁴⁾: never used alone, only after τ (t).
 Greyed cells indicate that the letter is not used.

Table 1: alphabet comparison between Standard Modern Greek and Tsakonian using the Kostakis and Simple Kostakis norms.

Character combination			Latin	IPA
SMG	Tsakonian			
	Kostakis	Simple Kostakis		
	AI — αι		ai	/e/
	AY — αυ		av	/av ⁽¹⁾ , /af ⁽²⁾
	EI — ει		ei	/i/
	EY — ευ		ev	/ev ⁽¹⁾ , /ef ⁽²⁾
HY — ηυ		(³)	iv	/iv ⁽¹⁾ , /if ⁽²⁾
	ΓΓ — γγ		ng	/ŋg ⁽⁴⁾ , /ŋj ⁽⁵⁾
	ΓΚ — γκ		g ⁽⁶⁾ , gk ⁽⁷⁾	/g ⁽⁶⁾ , /ŋg ⁽⁷⁾
	ΜΠ — μπ		b ⁽⁶⁾ , mb ⁽⁷⁾	/b ⁽⁶⁾ , /mb ⁽⁷⁾
	ΝΤ — ντ		d ⁽⁶⁾ , nt ⁽⁷⁾	/d ⁽⁶⁾ , /nd ⁽⁷⁾
	OI — οι		oi	/i/
	OY — ου		ou	/u/
	TZ — τζ		tz	/d͡z/
	TΣ — τσ		ts	[t͡s]
	TŜ — τδ̂	TΣΣ — τσσ	tss ⁽⁸⁾	[t͡s̥]

Notes: ⁽¹⁾: before a voiced consonant; ⁽²⁾: before a voiceless consonant;
⁽³⁾: not contained in author's data;
⁽⁴⁾: before /a/, /o/ or /u/; ⁽⁵⁾: before /e/ or /i/;
⁽⁶⁾: at the start of the word; ⁽⁷⁾: in the middle of the word;
⁽⁸⁾: proposal, to be further discussed.
 Greyed cells indicate that the combination is not used.

Table 2: character combinations comparison between Standard Modern Greek and Tsakonian using the Kostakis and Simple Kostakis norms.

Tsakonian orthography has undergone multiple revisions and adaptations over the years. The first trace of written evidence of Tsakonian in the post-classical era dates to a list of 35 words provided by the Turkish traveler Evliya Çelebi in 1668. Multiple efforts to describe the dialect were made in 19th and 20th centuries, including Oikonomou (1846, 1870), Deffner, who published both a grammar (1881) and a dictionary (1923), and Pernot (1934), among others (Liosis, 2016).

Oikonomou's work features the use of digraphs to represent Tsakonian-specific sounds, such as κχ for /k^h/, τθ for /t^h/, and πφ for /p^h/. The postalveolar fricative /ʃ/ is represented with (ch), while there are no distinct representations for /ʒ/ and [t͡s̥].

Deffner's dictionary marked a significant milestone in the documentation of the Tsakonian language, providing a comprehensive resource for researchers and speakers alike covering the Northern dialect. In his dictionary, Deffner features the use of diacritics to represent specific Tsakonian sounds, a practice that would influence later orthographic developments. These include the following:

- λ and ν to represent the /l/ and /n/ sounds after /i/, which would be otherwise pronounced as /k/ and /p/, respectively.
- \acute{t} , \acute{k} , and $\acute{\pi}$ to represent the aspirated sounds /t^h/, /k^h/, and /p^h/ respectively.
- $\check{\sigma}$ to represent the voiceless postalveolar fricative /ʃ/.
- ζ to represent the voiced postalveolar fricative /ʒ/.

This system of diacritics has played a crucial role in accurately representing the unique sounds of Tsakonian in a concise manner, allowing for a more precise written form of the language.

This system was further refined by the Tsakonian linguist Thanasis Kostakis, author of the most comprehensive works on Tsakonian in the second half of the 20th century. Among them, his *Short Grammar of the Tsakonian Dialect* (Σύντομη Γραμματική της Τσακόνικης Διαλέκτου, 1951) and his the three-volume *Dictionary of the Tsakonian Dialect* (Λεξικό της Τσακόνικης Διαλέκτου, 1986) features the same diacritic system, but with some variations:

- λ is used to replace λ , possibly in analogy to the use of the dot to indicate a non-palatalized sound with the pair ν - ν ,
- $\hat{\nu}$ to introduce a standalone /p/,
- a new symbol for the, allegedly, the apico-alveolar affricate [t͡s̺] is introduced, represented first as $\tau\acute{\sigma}$ and described as *ts thinner than compared with the standard [Modern Greek]* (Kostakis, 1951, p. 156) and then as $\tau\hat{\sigma}$, described as *thin ts, as sometimes in the standard [Modern Greek] έτσι [étsi]* (Kostakis, 1986a, p. μ’).
- $\check{\alpha}$ to represent an "open a" sound used mainly in Propontis Tsakonian and
- only within the *Short Grammar of the Tsakonian Dialect* and removed afterwards, the characters ψ and ξ to represent the sounds /pʃ/ and /kʃ/ respectively.

This set of diacritics, openly known as Kostakis orthography, has been since used as widely followed model for academic works in Tsakonian linguistics, including Sotiris Lysikatos' *The Tsakonian Chronicles - Volume 9 (Χρονικά των Τσακώνων – Τόμος Θ', 2006)*, compiling texts and stories in Tsakonian and *To preserve our language (Για να κοντούμε τα γρούσσα νάμου, 2020)* by Ioannis Kamvysis, a Tsakonian-Greek bilingual handbook for Tsakonian language learners. It is also supported in the Tsakonian Digital Dictionary as the default orthographic system.

3. Current alternative proposals

While Kostakis orthography set a standard for Tsakonian linguistics, the use of special characters hinders its accessibility in printed and digital formats, requiring specialized software or fonts for proper representation. This circumstance has led to multiple systems using digraphs to represent these characters, albeit without a clear consensus on their implementation.

Written Tsakonian sources, both in print and digital formats, have adopted different solutions to overcome these challenges. One of the most notable is Marneris orthography, developed by the local Tyriot Panos Marneris and used extensively in his printed and digital works aimed at teaching and promoting the Tsakonian language. Marneris' works make up a significant portion of the digital texts openly available on the Internet, rendering it an important source of information for Tsakonian language learners and digital systems. His orthography relies on digraphs to represent Tsakonian sounds absent in Standard Modern Greek and introduces two main innovations:

- The sound /ɲ/ is represented by the digraph *vv*, regardless of the surrounding vowels. Thus, the sequence *vi* is read as /ni/. This contrasts with Kostakis orthography, which would use the unpalatalized form *v̂i* /ni/.
- The sounds /ʃ/ and /ʒ/ are represented by the digraphs *sh* and *zh* respectively, incorporating the Latin character *h*.

Conversely, Marneris orthography does not distinguish between the palatalized and non-palatalized forms of *λ*, as Kostakis would represent with the pair *λ̂* and *λ*, and does not feature any digraphs for Kostakis' sound *τ̂δ̂*, which is represented as *τσ*.

English	IPA	Kostakis	Marneris	SMG
fire	/k ^h ara/	κάρα	κχάρα	φωτιά
to lift	/t ^h enu/	ταίνου	τθάινου	σηκώνω
yesterday	/e ^p heri/	επέρι	επφέρι	χθες
mountain	/ʃina/	θίνα	σθήνα	βουνό
walnut	/kaʒi/	κάζυ	κάζηυ	καρύδι
I am	/e ^p ni/	ένι	έννι	είμαι
he is	/e ⁿ i/	ένι	ένι	είναι
I told him/her/it	/je ^p eka/	ν̂ επέκα	ννιε πέκα	τον/την/ το είπα
wood	/kali/	κάλι	κάλι	ξύλο
lake	/limna/	λίμνα	λίμνα	λήμνι
and	/tse/	τσαι	τσαι	και

Table 3: comparison between Kostakis and Marneris orthographies.

Additionally, there are other secondary spelling differences between Kostakis and Marneris, most notably the use of *-γκου* instead of *-γγου* in verb endings, such as in Marneris *έγκου* vs. Kostakis *έγγου* (to go), and in the third person plural active aorist form *-αι* instead of Kostakis *-αῖ*, as in Marneris *επεράκαει* vs. Kostakis *επεράκαῖ* (*they passed*).

Marneris orthography does not stand alone, with other speakers adopting similar principles in their own writing systems with variations. Nikolaos Skantzou, in his Facebook posts, does distinguish between Kostakis *τσ* and *τδ* by using *τζ* for the latter. Artemisia Merkouriadou, in her literary work *Απολ'ύμα τά χώρα* (2009), employs similar solutions and does also distinguish between /li/ and /li/ by using *λ'ι* and *λι*, respectively.

4. Other contemporary proposals

Another notable approach was developed by Maxim Kisilier for the creation of a Tsakonian corpus. Recognizing that the corpus needed to be accessible to both linguists and the local community, Kisilier (2016) proposed a simplified orthographic system that avoided the diacritics present in Kostakis orthography. His system, introduced to the local community in October 2015, aimed to eliminate ambiguity and dependency on Ancient Greek knowledge by streamlining the vowel system (/i/ expressed only by *ι*, no use of *ω*, *υ* representing /u/) and

employing consonant clusters for Tsakonian-specific sounds: $\gamma\kappa$ /g/, $\zeta\zeta$ /z/, $\pi\chi$ /p^h/, $\sigma\sigma$ /s/, $\tau\zeta$ /dʒ/, $\tau\sigma$ /ts/, $\tau\sigma\sigma$ /tʃ/, and $\tau\chi$ /t^h/.

This approach prioritized digital accessibility and ease of use, particularly for mobile device users who would access the corpus without specialized fonts or keyboards. However, the proposal was rejected by local intellectuals as it diverged significantly from Kostakis' work, which is considered the authoritative reference for Tsakonian linguistics.

Similarly, the Polish linguist Marcel Nowakowski developed in 2024 a consistent and non-ambiguous system to write Tsakonian using entirely Standard Modern Greek characters. Palatalization was marked using $\nu\chi\iota$ and $\lambda\chi\iota$, while Kostakis' ζ /z/ and σ /s/ were realized as $\rho\zeta$ and $\sigma\zeta$, respectively.

5. Proposal motivation

While oral tradition has long served as the primary vehicle for the transmission of Tsakonian, the increasing relevance of digital communication necessitates a standardized orthographic norm fulfilling certain conditions: even though Kostakis orthography constitutes a well-documented and phonetically accurate system, its reliance on diacritics sets a significant barrier to its widespread adoption to non-specialized users.

While some tools and keyboards for computers have been developed, their installation usually requires specific technical knowledge. This conflicts with the need for accessible input for casual users, especially those of advanced age, who may not be familiar with installing custom keyboard layouts or fonts.

The dispersion of alternative orthographies based on digraphs significantly hinders the production of consistent written content in Tsakonian which could be employed for modern language technologies. These texts could serve as a foundation for the development of digital tools such as spellcheckers, text-to-speech engines, and machine translation systems. These tools not only support everyday use but also enhance the visibility and viability of Tsakonian in digital spaces.

Attending to Kornai's (2013) theoretical framework based on the digital ascent, that is, the language survival perspective in digital environments, ensuring an adaptation of the orthography to the digital age is crucial for the vitality of Tsakonian. This holds even if more widespread and officially developed tools and keyboards supporting Kostakis' writing system were to be created in the future, as this possibility cannot be guaranteed. Thus, the proposed Simple Kostakis orthography aims to bridge the gap between traditional linguistic documentation and modern communication needs by providing a system that is linguistically faithful and digitally accessible.

6. Current proposal

The present work proposes a unified approach that synthesizes elements from Kostakis' academic system, Marnieris' practical digraph-based model and other borrowings and innovations to achieve the following goals:

- allowing writing in Tsakonian using only the Standard Modern Greek alphabet without extensions, ensuring an easy input and processing in digital environments,
- full compatibility with Kostakis' orthography, allowing for straightforward mapping between the two, to recognize and take advantage of the existing body of linguistic research and resources in Kostakis' orthography,
- phonetic precision,
- preservation of the etymological roots of Tsakonian words, and
- linguistic consistency, applying the same marks to the same phonetic phenomena (e.g., using apostrophes after consonants to mark non-palatalization).

As outlined above, the orthography maintains a one-to-one correspondence with Kostakis' system, aiming to complement it rather to replacing it. This feature aims to bridge the gap between current and future technical developments that would be able to widespread official support for Kostakis' marks in digital formats. If these were to be developed in the future, users would be able to switch between both systems seamlessly. In the meantime, Simple Kostakis offers a robust solution.

IPA	Kostakis	Marnieris	Simple K.
/k ^h /	κ̣	κχ	κχ
/t ^h /	τ̣	τθ	τθ
/p ^h /	π̣	πφ	πφ
/ʃ/	σ̣	σh	ξξ
/ʒ/	ζ̣	ζh	ζζ
/ɲi/	νι	ννι	νι
/ni/	ν̣ι	νι	ν'ι
/ɲ/ + elision of /i/	ν̣'	νν'	νι'
/ʎi/	λι	λλι	λλι
/li/	λ̣ι	λλι	λ'ι
[t͡ʃ̣]	τ̣σ̣	τσ	τσσ

Table 4: phoneme representation comparison between orthographies.

- retention of Kostakis' phonetic precision while avoiding diacritics,
- usage of Kostakis' spelling in his dictionary as a general norm, e.g. advocating *έγγου* over *έγκου*,
- introduction of ξξ and ζζ to represent Kostakis sounds σ̣ /ʃ/ and ζ̣ /ʒ/, respectively.
- representation of Kostakis' ν̣' as νι',
- marking of palatalization in ν and λ, using the pairs ν'ι /ni/ - νι /ɲi/ and λ'ι /li/ - λι for /ʎi/,
- distinction between affricates, replacing τ̣σ̣ with τσσ proposed for the sound [t͡ʃ̣], maintaining the contrast with τσ [t͡ṣ].

A practical implementation of these rules can be found in **Annex A**.

One of the most pressing needs in Tsakonian orthographic reform is the standardized representation of /ʃ/ and /ʒ/, which are prevalent in the vocabulary and currently lack consistent digital representation. The proposed digraphs ξξ and ζζ offer a simple solution.

English	IPA	Kostakis	Marneris	Simple K.	SMG
fire	/ˈkʰara/	κάρα	κχάρα	κχάρα	φωτιά
to lift	/ˈtʰenu/	ταίνου	τθαίνου	τθαίνου	σηκώνω
yesterday	/eˈpʰeri/	επῆρι	επφῆρι	επφῆρι	χθες
mountain	/ˈʃina/	σίνα	σθήνα	ξξίνα	βουνό
walnut	/ˈkazi/	κάζυ	κάζηυ	κάζζυ	καρύδι
I am	/ˈepi/	ένι	έννι	ένι	είμαι
he is	/ˈeni/	ένι	ένι	έν'ι	είναι
I told him/her/it	/ɲeˈpeka/	ὦ' επέκα	ννιε πέκα	νι' επέκα	τον/την/ το είπα
wood	/ˈkali/	κάλι	κάλι	κάλ'ι	ξύλο
lake	/ˈlimna/	λίμνα	λίμνα	λίμνα	λήμνι
and	/t͡se/	τσαι	τσαι	τσσαι	και

Table 5: example comparison between orthographies.

While less frequently discussed, Kostakis marks the palatal distinction between /l/ and /ʎ/ on the one hand, and /ɲ/ on the other. Only the latter is covered by Marneris' orthography, creating a systematic gap. Borrowing and extending the idea from Merkouriadou's work, the use of the pairs *λι* /ʎi/ - *λ'ι* /li/ and *νι* /ɲi/ - *ν'ι* /ni/ is advocated.

Using *ννι* for /ɲi/ would entail mapping Kostakis' *βάννοι* (*sheep*, plural), pronounced /ˈβanni/ into *βάννοι* to be read as */ˈβanɲi/. The current proposal would yield the form *βάνν'οι*.

On another note, using *λλι* to represent /ʎi/ would clutter the orthography with digraphs: taking Kostakis' dictionary as a reference, the use frequency of *λι* is significantly higher than that of *λλι*. Thus, a consistent and lightweight solution mimicking Kostakis' dots to mark non-palatalization is proposed.

Another point of contention is the representation of Kostakis' *ὦ* letter. *ὦ* is systematically used in to mark the elision of an *ι* in words like *νι* (*to him/her/it*), *ένι* (*I am*) and *όνι* (*I am not*) to create their contracted forms *ὦ'*, *έὦ'* and *οὦ'*. Its direct representation can be achieved by using the sequence *νι'*: if no elision happens, the sentence *εζού νι ένι έχου* (*I have it*) would be written equally in both systems. However, when the contracted forms are used, Kostakis would represent it as *εζού ὦ' εὦ' έχου*, while using Simple Kostakis it would be written as *εζού νι' ένι' έχου*, adding

apostrophes. Using $\nu\nu'$ would cause the previously presented example $\beta\acute{\alpha}\nu\nu'oi$ (*sheep*, plural) to be misread as $*/'\beta\alpha\nu i/$.

The representation of the $[\widehat{ts}]$ sound contrasted with $[\underline{ts}]$ (Kostakis' $\tau\hat{\sigma}$ vs. $\tau\sigma$). While its distinction has been noted as of secondary importance by certain speakers and scholars, Kostakis and other written sources opt to set them apart, which suggests a degree of relevance in the language. The proposed trigraph $\tau\sigma\sigma$ for $[\widehat{ts}]$ offers a practical solution that maintains this distinction in a digital-friendly manner. Other discarded options include plain $\tau\zeta$, which would cause confusion in words like $\epsilon\nu\acute{\epsilon}\nu\tau\zeta\epsilon$ (Kostakis orthography, *he/she/it took*), and $\tau\zeta\zeta$, which although uncommon in modern use, would make it impossible to map the new orthography into the sequence $\tau\check{\zeta}$ used in Kostakis' dictionary.

This orthography should be able to accommodate all Tsakonian dialectal varieties. By offering a system that is both linguistically faithful and digitally accessible, it aims to bridge the gap between traditional linguistic documentation and modern communication needs.

Easier input methods are expected to foster data creation, including digital literature, educational materials, and online communication, thereby contributing to the revitalization and sustainability of the Tsakonian language. The ability to type Tsakonian using standard Greek keyboards removes a significant barrier to entry for speakers and learners alike. This accessibility encourages the production of written content in Tsakonian, from social media posts and blogs to formal publications and learning resources. All of this while allowing easy conversion to and from Kostakis orthography whenever needed.

Despite its advantages, there is room for improvement, mainly by its simplification. Arguments can be made to reduce complexity by removing the distinction of $\tau\sigma\sigma$ and $\tau\sigma$, as well as that of the palatal pairs νi vs. $\nu' i$ and λi vs. $\lambda' i$ at the expense of losing one-to-one correspondence with Kostakis norm. The current text aims to stir up debate among institutions, scholars and speakers to reach a wide consensus balancing precision and accessibility.

8. Conclusions

The Tsakonian language stands at a critical juncture in its historical trajectory. As a linguistic heritage of immense value, its survival in the digital age depends largely on its ability to adapt to contemporary communication technologies while preserving its distinctive phonetic and grammatical characteristics.

This paper has presented the Simple Kostakis orthography as a practical solution to the orthographic challenges facing the Tsakonian language community. By synthesizing the academic precision of Kostakis' diacritic system with the digital accessibility requirements of modern communication, this proposal offers a pathway for the language's continued vitality in digital environments.

The proposed orthography achieves full compatibility with existing academic standards while removing the technical barriers that have hindered widespread adoption of written Tsakonian. By using digraphs, trigraphs and markings, the system maintains phonetic precision without requiring specialized fonts or keyboards. This accessibility is crucial for encouraging broader participation in Tsakonian written communication, particularly among older speakers and those with limited technical expertise.

The one-to-one correspondence with Kostakis orthography ensures that the extensive body of existing linguistic research and documentation remains fully accessible and convertible. This compatibility protects the investment in previous scholarly work while enabling future technological developments, such as automated transliteration tools and digital language resources.

Perhaps most importantly, the Simple Kostakis orthography addresses the fragmentation that has characterized Tsakonian writing systems in recent decades. By providing a unified standard that accommodates all dialectal varieties and bridges the gap between academic and practical needs, it offers the Tsakonian community an opportunity to consolidate their written expression under a single, accessible framework.

The success of this orthographic proposal will ultimately depend on its adoption by the Tsakonian community itself. The current proposal provides the technical foundation necessary for the language's continued presence in digital spaces. This presence is essential not only for day-to-day communication but also for the development of computational tools that can support language learning, preservation, and revitalization efforts.

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Annex A: orthography comparison in sample texts

Kostakis

Simple Kostakis

Standard Modern Greek

β) ΚΟΥΒΕΝΤΑ

β) ΚΟΥΒΕΝΤΑ

β) ΚΟΥΒΕΝΤΑ

Τσ' έμαϊ παίζοντε; Το χιούρε, όσι θυμούμενέ νι; Έμαϊ μαζουκουμένοι γιούρε γιούρε τδ' έμαϊ βάντε το χιούρε τὰ μισά τδι ν' έμαϊ ντίντε με το κάλι να μπάει τάσ' το γουρνί, έμαϊ ανοί- ντουντε, γουρνίζα το χώμα, έτρορί, με του χέρε. Έμαϊ ντίντε το χιούρε να μπάει τάσ' το γουρνί, τδ' έτενή π' έκι έχου το γουρνί ν' έκι αρίκου το χιούρε τδι ν' έκι ανεμούκου τάτσου, έτενή έκι μπαίνου τάσου, να έτρου έμαϊ παιζάχοντε.

Τσ' έμαϊ παίζοντε; Το χιούρε, όσι θυμούμενέ νι; Έ- μαϊ μαζουκχουμέν'οι γιούρε γιούρε τσσ' έμαϊ βάντε το χιούρε τθα μισά τσι νι' έμαϊ ντίντε με το κάλ'ι να μπάει τάσ' το γουρνί, έμαϊ ανοί-ντουντε, γουρνίζα τθο χώμα, έτρορί, με του χέρε. Έμαϊ ντίντε το χιούρε να μπάει τάσ' το γουρνί, τδ' έτενή πφ' έκι έχου το γουρνί νι' έκι αρίκχου το χιούρε τσι νι' έκι ανεμού- κχου τάτσου, έτεν'η έκι μπαίνου τάσου, να έτρου έμαϊ παιζάχοντε.

Τι παίζαμε; Το χοίρο δεν τον θυμάσαι; Μαζεδόμασ- ταν γύρω γύρω και βάζαμε το χοίρο στη μέση, και τον χτυπούσαμε με το ξύλο να μπει μέσα στη γουβίτσα, ανοίγαμε γουβίτσες στο χώμα, εσιδά, με τα χέρια. Χτυπούσαμε το χοίρο να μπει μέσα στη γουβίτσα, κ' εκείνος που είχε τη γουβί- τσα τον έπαιρνε το χοίρο και τον πε τούσε έξω, εκείνος έμπαινε μέσα, να, έτσι παίζαμε.

Ταν αμπάρτδα ν' έσ' ξέρου, έμαϊ παιζάχοντε τδαι αμπάρτδα, αφού ν' έσ' ξέρου τσι να ντ' αλήου!

Ταν αμπάρτσσα νι' έσ' ξέρου, έμαϊ παιζάχοντε τσαι αμπάρτσσα, αφού νι' έσ' ξέρου τσι να ντ' αλήου!

Την αμπάρτσα τη ξέρεις, παίζαμε και αμπάρτσα, αφού τη ξέρεις, τι να σου πω!

Έμαϊ παιζάχοντε τδαι γκρουφούλι, έμαϊ γκρου- φουμένοι να νάμου ερέσωι.

Έμαϊ παιζάχοντε τσαι γκρουφούλι, έμαϊ γκρου- φουμέν'οι να νάμου ερέσωι.

Παίζαμε και κρυφτούλι, κρυβόμασταν να μας βρουν.

Τα δοξάρια όσι θυ- μούμενέ σι; Όταϊ παιζά- χοντέ σι; Νά, έσα έχου γιουριστά, λυγιστά νιά δάμντα τδ' έσα βάνου τδαι νιά σούγα, έσα τραβίντου τα σούγα, ν' έσα τσαφήνου τδ' έκι φύα α σούγα, έκι έγγα ως όρπαρί.

Τα δοξάρια όσι θυ- μούμενέ σι; Ότθαϊ παιζά- χοντέ σι; Νά, έσα έχου γιουριστά, λυγιστά νιά ξξάμντα τσσ' έσα βάνου τσαι νιά σούγα, έσα τραβίντου τα σούγα, ν' έσα τσαφήνου τσσ' έκι φύα α σούγα, έκι έγγα ως όρπαρί.

Τα τόξα δεν τα θυμάσαι; Δεν τα παίζατε; Νά, είχες γυρισμένη (: κάμψει), λυ- γισμένη μια βέργα κ' έβαζες και μια σούβλα, τραβούσες τη σούβλα (: το ακόντιο), την απολούσες κ' έφευγε η σούβλα, επήγαινε ως ε- κειδά.

Ενεί ν' έμαϊ αούντε τρόλε έγκεινι. Έμαϊ βάντε

Ενεί νι' έμαϊ αούντε τρόλε έγκεινι. Έμαϊ βάντε

Εμείς το λέγαμε τρόπολο αυτό. Βάζαμε στη μέση ένα

ἶα μισά ένα κουτσούρι, ένα ντενεκιούτδι τῶι ὦ' ἔμαϊ ντίντε με τους αμάδε να ζάει παραπά.

Για τον Κότῶινε π' ἔσ' αού, τον άτῶπο τα Σταματού, ὦ' ἔνι θυμούμενε, ἔκι ζατέ να κριούει ταν καρυά του ελιουτῶάντζε τῶ' εγκρενίστε από ταν καρυά τῶαι αραμάτδε ἶον τόπο, επανάτδε.

Το Δέρῶε νιατέ ὦ' ἔν' ἔχου, δε ὦ' εθuhnήμα. Εκιάτδε ένα δυνατέ βρέχο τῶ' εβούτδε το Δέρῶε τῶ' ενάτε α Παλιόχωρα θάσσα, τῶ' επρίτε ο πεθερέ τα γρία Παραστῶευού, ο Θανάση ο Παραστῶευά τῶ' ένα καμπζί, δύ' νομάτα επρίταϊ.

Για το Καραβοδράνι ὄν' ἔχου νιατέ τσίπτα, ἔτρου ὦ' είνι αούντε το μέρι ακατούς' του μύλοι. Ὅρπα ἔμα ἔχου χούρα τῶι ὦ' εδούκα του υζού μι, τῶαι ο υζέ μι επουλήτδε ένα κομμάκι σ' ένα από ταν Αθήνα, π' εφκιάτδε ἔδαρι τῶέα. Ἡ' ἔμα ἔχου πετέ του υζού με, μη νι δίνερε, «ἔσι βάνου κούλε ἶον πόρε ντι», δε μ' ενιάτδε.

Ἐδαρι τον ἄλλε ὦ' είνι κειράζουντε οι βούλοι π' είνι κράζουντε, ὦ' ἔνι κειράζου ο κούε π' ἔνι καούντου. Βούλερ' ἔνι, ὄ θα

τθα μισά ένα κουτσούρι, ένα ντενεκιούτξξι τσι νι' ἔμαϊ ντίντε με τους αμάδε να ζάει παραπά.

Για τον Κότῶσινε πφ' ἔσ' αού, τον άτῶξωπο τα Σταματού, νι' ἔνι θυμούμενε, ἔκι ζατέ να κχριούει ταν καρυά του ελιουτῶξάντζε τσ' εγκρενίστε από ταν καρυά τσαι αρα-μάτσε τθον τόπο, επανάτσε.

Το Δέρῶξε νιατέ νι' ἔνι' ἔχου, δε νι' εθuhnήμα. Εκιάτσε ένα δυνατέ βρέχο τσ' εβούτσε το Δέρῶξε τσ' ενάτθε α Παλιόχωρα θάσσα, τσ' επρίτθε ο πεθερέ τα γρία Παραστῶσευού, ο Θανάση ο Παραστῶσευά τσ' ένα καμπζί, δύ' νομάτα επρίτθαϊ.

Για το Καραβοδράνι ὄνι' ἔχου νιατέ τσίπτα, ἔτρου νι' είνι αούντε το μέρι ακατούς' του μύλοι. Ὅρπα ἔμα ἔχου χούρα τσι νι' εδούκα του υζού μι, τσαι ο υζέ μι επουλήτσε ένα κομμάκι σ' ένα από ταν Αθήνα, πφ' εφκιάτσε ἔδαρι τσῶέα. Νι' ἔμα ἔχου πετέ του υζού με, μη νι δίνερε, «ἔσι βάνου κχούλε τθον πόρε ντι», δε μ' ενιάτσε.

Ἐδαρι τον ἄλλε νι' είνι κειράζουντε οι βούλοι πφ' είνι κράζουντε, νι' ἔνι' κειράζου ο κούε πφ' ἔνι' κχαούντου. Βούλερ' ἔνι, ὄ

κουτσουράκι, ένα τενεκεδάκι και το χτυπούσαμε με τις αμάδες να πάει πιο πέρα.

Για τον Κόκκιννο, που λες, τον άντρα της Σταματούς, τον θυμάμαι, εἶχε πάει να τινάξει την καρυδιά και γλίστρησε και γκρεμίστηκε από την καρυδιά κ' ἔμεινε στον τόπο, πέθανε.

Το Δέρσο ακουστά το 'χω, δεν το θυμήθηκα. Ἐπιασε μιά δυνατή βροχή και βούλωσε το Δέρσο κ' ἔγινε η Παλιόχωρα θάλασσα και πνίγηκε ο πεθερός της γρια Παρασκειούς, ο Θανάσης ο Παρασκευάς κ' ένα παιδί, δύο νομάτοι πνίγηκαν.

Για το Καραβοδρόμι δεν ἔχω ακουστά τίποτα, ἔτσι το λένε το μέρος κάτω από τους μύλους. Εκεί εἶχα χωράφι και το 'δωσα του γιού μου και ο γιός μου πούλησε ένα κομμάτι σ' ἕναν από την Αθήνα, που ἔφτιαξε τώρα σπίτι. Του εἶχα ειπεί του γιού μου, μη το δίνεις, «βάζεις αγκάθι στην πόρτα σου», δε μ' ἄκουσε.

Τώρα τον ἄλλο τον πειράζουν οι πετεινοί που κράζουν, τον πειράζει ο σκύλος που γαβγίζει. Πετεινός εἶναι, δε θα κράξει;

κράτσει; Τον κούε ταν
αμέρα ν' έν' έχου δεϊτέ, τα
νιούτα ν' ένι τσαφήνου,
δεϊτε θα νι έχει, μαθέ, τσαι
τα νιούτα; Απανούσε από
το Καραβοδρόνι ένι α τδέα
του υζού μι, έτανή π' έσ'
ορού οπαπέρε.

θα κράτσει; Τον κούε ταν
αμέρα νι' έν' έχου δεϊτέ, τα
νιούτθα νι' ένι τσαφήνου,
δεϊτε θα νι έχει, μαθέ, τσαι
τα νιούτθα; Απανούσε από
το Καραβοδρόνι ένι α
τσσέα του υζού μι, έτανή
πφ' έσ' ορού οπαπέρε.

Το σκύλο την ημέρα τον
έχει δεμένο, τη νύχτα τον
απολάει, δεμένο θα τον
έχει, μαθέ, και τη νύχτα;
Πάνω από το Καραβοδρόμι
είναι το σπίτι του γιού μου,
εκείνο που βλέπεις εκει-
πέρα.

Source: Dictionary of the Tsakonian Dialect – Volume III: Π - Ω, Kostakis, 1987, pp. 408-409.