

The accent of Ancient and Modern Greek from a typological perspective

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Μία από τις διαφορές μεταξύ των αρχαίων και των νέων ελληνικών βρίσκεται στο σύστημα του τονισμού. Τα νέα ελληνικά είναι γλώσσα με δυναμικό τονισμό, τα αρχαία είναι γλώσσα με μελωδικό τονισμό. Εφαρμόζοντας τη θεωρία του ISAČENKO, όπως την χρησιμοποιεί ο LUSCHÜTZKY, αποδεικνύεται ότι η αλλαγή από το ένα τονικό σύστημα στο άλλο δεν έγινε τυχαία, αλλά σαν αποτέλεσμα των ιστορικών αλλαγών των φωνημάτων. Η απώλεια της ποσότητας των φωνηέντων είναι, και στην ιστορία άλλων γλωσσών, συνδεδεμένη με την αλλαγή του τονικού συστήματος.

Comparing the phonological systems of Ancient and Modern Greek, we find great differences in the accentual system. Ancient Greek is generally referred to as a language with melodic accent (ALLEN 1987: 7) using register tone (as opposed to e.g. Mandarin Chinese which uses contour tone), varying the pitch of the voice and thereby changing the lexical or the grammatical meaning of a word (LADEFOGED 1993: 253). Modern Greek with its dynamic accent focuses on using stress, i.e., using more air and muscular energy, thereby producing a mixture of increased loudness, pitch and quantity (LADEFOGED 1993: 249–250). This difference manifested itself in the Modern Greek writing system, in that all accentual signs that had been introduced by Aristophanes of Byzantium around the third century BCE, except for the acute, the οξεία, were dropped from the official orthography in the reforms of the 1970s and 80s.

The accent system of Ancient Greek has only too often been investigated in with little reference to later stages, especially to Modern Greek. Even the well based books of ALLEN (1987; 1983) hardly ever refer to Modern or Byzantine Greek. This has given rise to criticism and even to polemic attacks (e.g. PAPADEMETRE 2000). During the last years, many scholars have tried to link the investigation of Classical Greek with the full diachrony of the Greek language, or at least with modern languages that use similar systems. The opinion that syllables with an acute were pronounced about one quint higher than the others, has given way to comparative studies finding Japanese, Korean and several African languages to have similar accentual systems as Ancient Greek (DEVINE & STEPHENS 1991–93, 1994; for the historical development of the research see DANEK 2001). The “exotic” status of these languages has probably not exactly helped further investigation (for a critique of the term “exotic” see LUSCHÜTZKY 2005).

However, pitch accent and tone accent are not as exotic as they seem: There are several languages even within the European Union that have at least a dialectal variant using

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pitch or tone accent, e.g. Swedish, Slovenian, Lithuanian or Danish. Why does “pitch accent” sound so exotic to us, then? We are so much used to hearing, but not analysing pitch variations that we do not perceive them. We use tone in many languages, even in Modern Greek – but we do not use it as distinctive feature (see JAKOBSON 1969: 49). The same physical events can be either musical or differentiating meaning; this depends on the language system. Similarly, speakers of Japanese do not consider their language to be a tone language – unless they are linguists, of course. A tone language in the wider use of the word is a language with contour tone such as Mandarin Chinese; and Japanese certainly does not make use of contour tone.

Similarities and differences between languages derive from the following reasons:

- genealogical relationship;
- influence via contact;
- a shared substratum; or
- coincidence (see LUSCHÜTZKY 1999: 24; my translation).

How can the differences between Ancient and Modern Greek be quantified and explained? As these two languages are obviously quite directly genealogically related, the other reasons need to be investigated in. From the point of view of areal linguistics, other methods, such as typological, geographic, cultural historical and sociological methods are to be applied in order to offer an explanation for language change and for *Sprachbund* phenomena (see LUSCHÜTZKY 1999: 24; my translation).

Taking as a starting point the typological ideas of Alexander Vasiljevič ISAČENKO (1939/40), an expert on Slavic languages, as presented by Hans Christian LUSCHÜTZKY (1999: 39–42), the distinction of vocalic versus consonantal languages can be used for Ancient versus Modern Greek.

The **Ancient Greek vowel system** consists of the following vowels: long and short a, long and short e, long and short i, long and short o; rounded long and short y; seven short diphthongs /aj, ej, oj, yj; aw, ew, ow/, six long diphthongs /a:j, e:j, o:j, e:y, o:y; a:w/; and the additional phonemes long closed e and long o (or long closed u) from contraction or compensatory lengthening, written <ει> and <ου> – these are 25 vowel phonemes.

The **Modern Greek vowel system** consists of a “reasonable” number of five phonemes, /a, e, i, o, u/.

The **Ancient Greek consonant system** (see Figure 1) consists of a number of 15 (not considering the status of initial aspiration, the rough breathing) plus two semivowels (see BORNEMANN & RISCH 1978: 3).

denotation according to manner of articulation		p-sounds lip sounds (labials)	t-sounds tooth sounds (dentals)	k-sounds sounds at the roof of the mouth ("gutturals")
"mute" closure sounds (mutae)	(voiceless) tenues	π	τ	κ
	(voiced) mediae	β	δ	γ
	(aspirated) aspiratae	φ	θ	χ
"sounding" continuants	("liquid") liquidae	λ ρ		
	(nose sounds) nasales	μ	ν	γ before guttu- rals (= ng)
	(fricative sounds) spirans		σ	
unsyllabic semi-vowels		F		$*j$

Figure 1. The consonants of Ancient Greek (BORNEMANN & RISCH 1978: 3, my translation)

Following RUGE (1997: 17) (see Figure 2), the **Modern Greek consonant system** consist of a number of 20 (without separating the regular allophonic realisations /x and ç/ for <χ> (chi) and /ɣ and j/ for <γ> (gamma)).

		manner of articulation				
		momentary		continuous		
		plosives		fricatives	sonorants	
		voiceless	voiced	voiceless	voiced	
place of ar- ticula- tion	labials	p	b	f	v	m (nasal)
	dentals	t	d	θ	δ	n (nasal)
	alveolars	t^s	d^z	s	z	r (trill)
	velars (palatals)	k	g	χ (ç)	γ (j)	l (lateral)

Figure 2. The consonants of Modern Greek (RUGE 1997: 16, my translation)

If we use the methods of **quantitative typology**, we can try to arrange languages along a scale from very consonantal to very vocalic phonological systems. In order to do this, we divide the number of consonant phonemes by the overall number of phonemes. This results in figures between (but, obviously, not including) 0 and 1 (as a language with no

vowels or one with no consonants is highly improbable), with the lower end of the scale describing very consonantal languages and the upper end of the scale describing very vocalic languages.

These figures result in an index of 0.375 for Ancient Greek – rather a vocalic language – and of 0.8 for Modern Greek – a very consonantal language. These quantitative-segmental figures can be put into a relation to a qualitative-prosodic typology. ISAČENKO (1939/40 as quoted in LUSCHÜTZKY 1999: 40; my translation) proposes the following prosodic types:

1. polytonic:
 - 1.1. with syllable intonation accent in long and in short syllables (Kashubian or Cassubian (West Slavonic, closely related to Polish) and Štokavian (South Slavic – in former Yugoslavia))
 - 1.2. with syllable intonation accent only in long syllables (Čakavian (South Slavic – in former Yugoslavia), Slovenian (South Slavic))
2. monotonic:
 - 2.1. with long or short vowels
 - 2.1.1. in all syllables (Czech (West Slavic))
 - 2.1.2. in certain syllables according to rhythmic rules (Slovak (West Slavic))
 - 2.1.3. in one syllable per word (Slovenian dialects (South Slavic))
 - 2.2. with dynamic accent (Russian (East Slavic), Bulgarian (South Slavic))
 - 2.3. without distinctive function of prosodic features (Polish (West Slavic), Sorbian (West Slavic), East Slovak (West Slavic)).

If we use these example languages as a guideline for Greek, we can see that e.g. Bulgarian, being consonantal and monotonic, is typologically rather similar to Modern Greek. Slovenian, on the other hand, being vocalic and polytonic, is rather similar to Ancient Greek. According to ISAČENKO, this is not accidental, but it is based on a **typological conspiracy** (*typologische Konspiration*), a relation of properties favouring each other that jointly constitute and consolidate a certain type. JAKOBSON mentioned that in aphasia, stress changes are often connected with a simultaneous tendency to vowel quantity reduction. Also in the history of the Slavic languages, these two phenomena, stress change and quantity loss, are often connected, e.g. in Polish, and in some Czech and Slovak dialects.

It can hence be concluded that the collapse of the Ancient Greek vowel quantities and the development towards a stress accent language are directly linked to each other.

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