

A Companion in Linguistics



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A Festschrift for Anders Ahlqvist on the occasion of his sixtieth
birthday

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Cover photograph © Bernadette Smelik 1995; remains of the monastic school of the early medieval monastery in Nendrum (Co. Down), where according to Hofman (1996: 21-3, quoted in Lambert, this volume) the St Gall Priscian Ms. (discussed in Ahlqvist 1988) was possibly written.

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Matthias Akiander (1802-1871): an early Finnish phonetician

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Matthias Akiander was born in 1802 in Jääski, in the south-eastern part of Finland called 'Old Finland', which had belonged to Russia since 1721. Akiander taught himself to read and write and was sent to elementary school in Viipuri/Viborg in 1811. The language of instruction was German but Akiander managed to complete the curriculum in two years.

From 1819 he worked as a private tutor in the remote parish of Tohmajärvi. His employer wanted to support the talented tutor and Akiander was able to start classical studies at the Academy of Turku/Åbo in 1822. During the great conflagration of 1827 when most of Turku including the Academy was destroyed, Akiander was one of the three students that salvaged part of the Academy archives. The Academy was moved to Helsinki in 1828 under the name of the University of Helsinki. Akiander was appointed teacher of Russian at the Helsinki Secondary School in 1830. He had a good command of Finnish, Swedish, German and Russian. In 1835 he published a Russian grammar (Akiander 1835). He taught Russian at the University on a mostly temporary basis, but as Associate Professor from 1855 and Ordinarius from 1862. From 1855 he was inspector of all the schools in Helsinki (Aalto 1987: 134-6).

Akiander's main linguistic work is his article "Försök till utredning af finska språkets ljudbildning" ('Attempt at clarifying the formation of sounds in the Finnish language'), which appeared in Swedish in the journal *Suomi* in 1845 (144 pp.) and as a separate volume the next year (Akiander 1845). This is the first substantial contribution to Finnish phonetics. The few Finnish grammars that had appeared prior to Akiander's longish article had treated Finnish sounds and pronunciation very superficially. Akiander strives for generality and tries to grasp the essence of the sound system of the language. He makes occasional comparisons to Russian, German, and Swedish, and also offers some typologically relevant remarks.

There are fourteen main sections in the article. Three deal with the quality and articulation of individual sounds, and one each with quantity, phonotactics ('combinations of sounds'), sound modifications, aspiration, canonical word structures, 'sound balance' (especially between

syllables), sound harmony (i.a. vowel harmony), syllabification, phonetic processes like epenthesis and apocope, accent, and metrics. His overview is comprehensive, in retrospect only intonation is lacking. Akiander does not describe his methodology, but the text makes it clear that he was a well-rehearsed ear phonetician who made extensive use of mirrors to observe articulatory movements.

Several parameters of the vowels are properly described, especially those of lip rounding and tongue height, disregarding the claim that /i e/ would be more closed than /u o a y ö ä/. As his work is prior to a theory of formant structure, it is easy to understand why Akiander supposed that differences in fundamental frequency from low to high explain the sequence /u o a e i/. This sequencing is rather that of the second formant from low to high. The distances between the vowels are properly described: the distance from /a/ to /u/ is greater than that from /a/ to /o/, similarly that from /y/ to /ä/ as compared to the distance from /y/ to /ö/, etc,

Akiander formulates an early phonemic insight when he states that ‘the Finnish vowel sounds have remained so clear that one and the same sound is not pronounced in several different ways, as is the case in many other languages’.

The consonants receive a basically adequate description. What was not understood in the mid-1800’s was especially the function of the vocal cords to create voicing. Akiander claims that the distinction between voiceless and voiced stops is one of tense versus lax articulation. Interestingly, he notes that the basic consonants are /k t p/ and he further claims that they occur in all languages. The consonant system is displayed as a two-dimensional correlation of articulation places and manners (where the manners are deficiently described):

	TENUES	MEDIAE	LIQUIDAE
BACK OF THE TONGUE	k	g	h
TIP OF THE TONGUE	t	d	s
TIP OF THE TONGUE			l n r
LIPS	p	b v	m

This scheme demonstrates a clear grasp of the basic affinities in the pattern of consonants. The secondary nature of /b d g/ in Finnish is also noted, they are characterized as ‘transitory sounds’ (especially in consonant gradation) whereas /p t k/ have fully independent status. The likewise marginal (‘secondary’) /f/ is described as /v/ followed by aspi-

ration, one more indication that the nature of voicing had not yet been properly grasped.

The treatment of aspiration is somewhat surprising. Both intervocalic and prevelaric /h/ is treated as aspiration, as in the words *vaha*, *vihko*. On top of that Akiander surmises that the sibilant in the consonant combination /ts/ has developed from an earlier aspiration and tries to prove his claim by citing examples from Mikael Agricola's translation of the New Testament (Agricola 1548), where /h/ occurs after a consonant.

Akiander notes the correlation between the absence of the long (phonemically double) mid vowels /ee öö oo/ in root syllables and the occurrence of the diphthongs /ie uo yö/ (historically the latter derive from the former). As for the other fifteen diphthongs, he gives a complete inventory and notes that /i/ has the highest propensity to co-occur with other vowels, and that /y/ is complex and therefore occurs only in few diphthongs. In the phonotactic section he notes the prevalence of CV- over VC-syllables and correctly describes the distribution of consonants in pre- and postvocalic position.

The analysis of canonical word structures is up to date in many respects. 'The empty and meaningless sounds receive content and meaning as soon as they combine with one other in order to express feelings and concepts,' Akiander starts. He notes the scarcity of Finnish monosyllabic roots (a few tens), the centrality of disyllabic roots, and analyzes parts of the rich onomatopoeic vocabulary. Many correct phonotactic observations are made, e.g. the (almost exceptionless) absence of the word-initial combinations */je- ji- vu- vy-/. The initial combinations of consonants and long vowels or diphthongs are illustrated by a scheme. The analysis of medial consonant clusters is surprisingly accurate, as is the description of consonant sequences over the first and second syllable boundaries and the absence of diphthongs in non-first syllables of root morphemes. The central restriction of vowel harmony is precisely described.

An interesting feature of Akiander's presentation is that he includes all morphophonological alternations as part of his phonology. For example, he develops a theory of vowel balance to explain the alternation a:o in *pila* 'joke' (nominative singular) : *pilo+i:ssa* 'in the jokes' (inessive plural). The idea is that the strong (open) stem vowel /a/ is too dominating when the plural /i/ is adjoined to it and therefore /a/ is weakened to /o/ to restore the balance of the syllable.

The pervasive phenomenon of consonant gradation (stop alternations, e.g. *kauppa* 'shop' (nominative singular) : *kaupa:ssa* 'in the shop' (inessive singular)) is also explained by Akiander as a tendency to achieve

phonological balance, an idea that has recurred in much of the later literature on the topic, without reference to Akiander's early ideas. When an ending like genitive /n/ is adjoined to the stem *takki* 'coat', the second syllable is strengthened (it receives more weight) whereupon the overall syllabic balance of the word is restored by shortening the long intervocalic stop, yielding /taki+n/.

Towards the end of his exposition, Akiander makes a typological excursion and notes some of the phonological and grammatical similarities between Finnish and Turkish, such as vowel harmony, the absence of gender and articles, negative conjugation, similarities in some pronouns and personal endings, predilection to use postpositions over prepositions, similar inflections of active and passive verb forms, and some more speculative lexical similarities. This was, *nota bene*, four years before M. A. Castrén wrote his famous dissertation *De affixis personalibus linguarum altaicarum* (1850), in which he was the first to argue for Uralic-Altaic affinity on the basis of solid linguistic material (especially personal pronouns and inflectional endings).

Matthias Akiander surely deserves the title 'early Finnish phonetician' (cf. Abercrombie 1949). His original thinking is in no way belittled by the fact that the great coming of phonetics laid a few decades ahead. Just to recapitulate the breakthrough to come: In 1867, Alexander Melville Bell presented his 'Visible Speech' to help deaf students learn spoken language (Bell 1867). Visible Speech was also the first notation system for the sounds of speech independent of a particular language or dialect. Other relevant foundational classics (cf. Kohler 1981) include works like Brücke (1856), Merkel (1857), Schleicher (1861-1862), Ellis (1869-1889), Storm (1874), Sweet (1874; 1877), Sievers (1876), Winteler (1876) and Viëtor (1884).

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