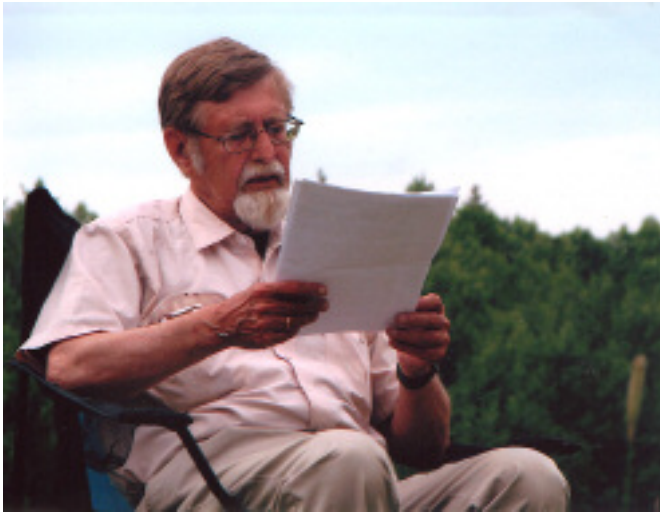


IN MEMORIAM ARVO EEK



Arvo Eek was born on October 13, 1937 in Pärnu, a city on the southwestern coast of Estonia. One of five children, Arvo spent his childhood in various places of Pärnumaa County, depending on where his father, a signalman on the railroad, was stationed. After finishing studies at the Eidapere 7-year school in 1952, he continued his education at the Viljandi Pedagogical School which provided vocational training. In 1956, he became a primary school teacher in Luua.

One year later, while still teaching, he started long distance studies of Estonian philology at the University of Tartu.

In the autumn of 1959, he became a full-time student and graduated from the University of Tartu in 1963. His last years as a student were a particularly interesting and formative time. In 1961, after a 20 year interlude in Estonian phonetic

research, new results based on an instrumental investigation of the Estonian three quantities were published by Ilse Lehiste in the United States and by Georg Liiv in Estonia. In 1962, Georg Liiv defended his Candidate of Philology degree (= PhD) on Estonian vowels in the three quantity degrees. Concurrently, new solutions for Estonian phonology were theorized. Inspired by the results of this research, Arvo Eek became interested in phonetics. Under the supervision of Gerda Laugaste, he wrote his graduation thesis on the articulation and perception of Estonian word quantity, in which he presented acoustic data in a number of oscillograms. He became a graduate student in 1963 at the Institute of Language and Literature of the Estonian Academy of Sciences in Tallinn. His supervisor was Georg Liiv, who had become the head of the phonetics labo-

ratory. However, the laboratory had no equipment. A large analyzer was built for the laboratory at Tallinn Polytechnic Institute, but unfortunately it never functioned. Thus, for a long time, phoneticians had to use the facilities of other institutions which owned equipment that could also be applied for phonetic research. It was no wonder that Arvo could not complete his dissertation in time. As a junior researcher of the Institute, Arvo had to work on the side as a proof reader in order to support his family. He was only able to defend his Candidate degree on May 12, 1971.

Arvo Eek's dissertation "Articulation of the Estonian Sonorant Consonants" was written in English. In this work, the articulation of consonants *m*, *n*, *n̄*, *ŋ*, *l*, *l̄*, and *r* in three distinctive quantities (Q1, Q2, Q3) was studied using static roentgenography, lateral cinefluorography, traditional and direct palatography and filming of lip articulations synchronized with sound spectrography and oscillography. In addition to providing new results on sonorant consonants, the dissertation was the first instrumental study that added to our knowledge of Estonian palatalization (It is the initial, rather than the final part of the consonant that is obligatorily palatalized in an Estonian palatalized consonant — a phonetic characteristic that is inadequately represented by the Uralic Phonetic Alphabet and distorted by the International Phonetic Alphabet). Arvo Eek also observed that the difference between Q2 and Q3 in Estonian sonorant consonants and *ŋC* is realized in their tenseness (i.e. intensity) rather than in duration.

After receiving his degree, Arvo Eek earned the position of senior researcher and became the head of the phonetics laboratory. Furthermore, under the editorship of Arvo Eek, the series "Estonian Papers in Phonetics", published between 1972 and 1987 was successfully launched. From 1972 to 1977, Arvo Eek also taught general and Estonian phonetics at the University of Tartu and supervised several graduation theses in the field of instrumental phonetics. In 1977, the

laboratory of experimental phonetics was incorporated into the sector of computational linguistics, which meant certain losses for phonetics. However, this did not stop the development of phonetic research. Arvo Eek carried on working as a senior researcher and a phonetician. In 1987, the Eleventh International Congress of Phonetic Sciences (ICPhS) was organized in Tallinn. During the 1970s and 1980s, Arvo Eek concentrated his attention on the study of various issues related to the Estonian quantity. These included the articulation and perception of duration patterns as well as stress and tone in linguistic feet. In other words, Arvo Eek undertook the most critical problems of Estonian phonetics and phonology.

The mounting social reforms and the slow yet noticeable democratization of the Soviet Union during the Gorbačev Era gave the first glimmer of hope to the people of the annexed countries for the restoration of independence. Arvo Eek, together with a small group of lawyers and linguists began drafting the initial Language Act. With only minor changes, this document became the first Language Act in the Soviet Union that accorded official status to the indigenous language and consequently limited the scope of the Russian language. Arvo Eek also served as member of the Estonian Congress, the governmental body that adamantly fought for the restoration of the Estonian Republic. From January 1991 to April 1992 he worked part-time as a specialist and until April 1993 he served as an advisor of the State Language Board, dealing with questions related to the regulation of language rights, human rights, and citizenship. His connections with the Institute of Language and Literature became weaker. In 1992, he seized an opportunity to spend six months as a guest researcher at the Laboratory of Phonetics at the Institute of Linguistics at Stockholm University. He left the Language Board in April, 1993 and joined the Laboratory of Phonetics and Speech Technology at the Institute of Cybernetics at the Tallinn University of

Technology. From 1993 to 1994, he spent a year doing research in Stockholm. After returning from Stockholm in December 1994, he defended his Doctor of Philology dissertation "Studies on Quantity and Stress in Estonian" which summarized his work on the subject so far.

His work at the Laboratory of Phonetics and Speech Technology was closely connected with that of Einar Meister, the head of the laboratory and a specialist in speech technology. The two researchers formed a well functioning team, where the ideas and experience of Arvo Eek were combined with Einar Meister's mathematical competence and knowledge of speech technology. Einar Meister was responsible for generating synthetic stimuli for perception tests, signal processing, statistical analysis, and graphical presentation of experimental data. Together they participated in the international project, "BABEL — a Multilanguage Database" (1995—1998), creating the Estonian Phonetic Database, which contains all possible diphones and can be used for speech synthesis and analysis. In addition to its practical applications, this proliferant collaboration resulted in 19 scientific publications. In 2003, Arvo Eek together with Einar Meister, Meelis Mihkla, and Heiki-Jaan Kaalep was given the National Science Award for the creation of software for text-to-speech synthesis in Estonian. Arvo Eek continued to work at the Institute of Cybernetics as a senior researcher until the end of 2007.

Shortly after becoming a Candidate of Philology, Arvo Eek aspired to write a comprehensive overview of the phonetics of the Estonian language. Paul Ariste's work, "Eesti foneetika" (Estonian Phonetics) (1947) and its second edition "Eesti keele foneetika" (Phonetics of the

Estonian Language) (1953) were based on data gathered in the 1930s and were intrinsically dated. There existed several competing hypotheses about the complicated phonological structure of Estonian, which meant that new instrumental data were badly needed. With his work, Arvo Eek did his best to fill the existing lacunae. His scholarly style was meticulous; he felt obliged to read everything that was written about Estonian phonetics and phonology, and to survey all viewpoints presented on the topic. The first volume of the much anticipated textbook "Eesti keele foneetika I" (192 pp) was published at the beginning of 2008. The book provides a thorough overview of Estonian vowels, their articulation and perception, as well as regional characteristics and variation. It also includes an introductory chapter on the role of phonetics and phonology, and articulatory phonetics. Arvo Eek began to prepare the second volume which was to be devoted to Estonian consonants. In 2008, however, he fell seriously ill. Soon after giving a seminar in Tartu only a few days before Christmas, he underwent surgery at the Tartu University clinic. After the operation and a tiresome recovery he made efforts to complete the work on the volume but his time ran out. His colleagues will have to continue his momentous work.

Throughout our acquaintance beginning in our university years, I knew Arvo as an exceptionally balanced person who never raised his voice to anyone. He was, however, deeply insulted by shallow or trite assessments of his carefully formulated results and hard work. His studies in the field of Estonian phonetics provide a solid foundation both for further research and instruction of Estonian phonetics.

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