

IPA NEWS

IN MEMORIAM
WIKTOR JASSEM (1922–2016)



Wiktor Jassem (born on 12 June 1922 in Kraków; died on 7 January 2016 in Poznań) was one of the most versatile of the leading phoneticians of the 20th century. He was active in the International Phonetics Association in various roles for the whole of his professional life, as author (from 1947), member (from 1952) and Council Member (from 1972 to 2007). His publications in phonology, linguistic phonetics, experimental phonetics and speech technology cover some 60 years, between 1947 and 2008, and comprise five monographs, five textbooks, 253 journal and conference papers, book chapters and reviews (including five in *Le Maître Phonétique*, the precursor of the *Journal of the International Phonetic Association*, twelve in *JIPA*) and eight edited and co-edited collections. In 2001 Wiktor Jassem was inducted into the Polish Phonetics Society, which he founded and of which he was president for 15 years, as Honorary Member.

Jassem's notable contributions to linguistics and phonetics started with the publication of a textbook *Colloquial English for Polish Students* and a description of Polish phonetics in *Le Maître Phonétique*, both in 1947, the latter to be complemented by his Polish Illustration of the IPA in *JIPA* (Jassem 2003). Five years later, the Wrocław Society of Sciences and Letters published Jassem's ground-breaking dissertation (Jassem 1952), a study which extended English intonation studies from the mainly pedagogically oriented tonetic tradition to empiricist scientific analysis and argumentation. The dissertation, *Intonation of Conversational English (Educated Southern British)*, expanded on an earlier *Maître Phonétique* article *indikejfn əv spɪ:tʃ rɪðm in ðə trɑːnskriptsn əv edʒukeitid sɑðən ɪŋglɪf* (Jassem 1949), with original accounts of the separate structuring of stress or rhythm patterning and intonation. In 1983, Jassem was awarded the *Kay Elemetrics Prize* for the pioneering work of his team on automatic speech segmentation methods; an account of this work appeared in the Proceedings of ICPHS 10, 1983 (Jassem 1984). In 1983, The Polish Academy of Sciences published his *magnum opus* in phonology (Jassem 1983), *The Phonology of Modern English*. In a

much-cited article, Jassem, Hill & Witten (1984) reported on a quantitative study confirming his model of English rhythm, which challenged the standard tonetic approaches related to Abercrombie's model.

A key element of Jassem's theory of intonation was the treatment of rhythm, in the form of stress patterns, and melody, in the form of intonational tunes, as separate systems. The basis of Jassem's model of English stress patterns was a distinction between the Narrow Rhythm Unit (NRU), with a stressed syllable and optional following unstressed syllables up to the next relevant grammatical boundary, and relatively regular timing. The unstressed syllables preceding the stressed syllable after the last grammatical boundary were termed the Anacrusis (ANA), with different timing properties. Both constituents together form the Total Rhythm Unit (TRU); see Karpiński (2016). This contrasted with the traditional 'ictus-remiss' type of stress pattern analysis, in which the ANA is treated as a rhythm unit missing the ictus. Jassem's approach was empirically confirmed in Jassem et al. (1984). The study of speech melody occupied the attention of Jassem and his group for six decades, starting with his dissertation and continuing, in cooperation particularly with Maria Steffen-Batogowa, Grażyna Demenko and Piotra Łobacz, with quantitative methods in experimental perception studies and signal analysis in speech technology. A detailed exposé of Jassem's work on prosody is provided by Karpiński (2016).

Not so well known, but with great impact on early speech technology, is Wiktor Jassem's innovation of the difference spectrum as an application of edge-detection techniques, which are also used in vision recognition, for segmenting speech (Jassem 1984). During a visit to his lab in Poznań in 1983, I was able to see this algorithm in action with an extensive hardware filterbank for spectral analysis using the technologies of the time. During this and many later visits I had the privilege of discussing with him various problems and possible solutions, which have since been a strong influence on my own work.

This account has only skimmed the surface of Wiktor Jassem's life and work. With his many publications and numerous international cooperations and co-authorships, Jassem exerted a lasting influence on several generations of phoneticians, not only in his native Poland, as a range of international tributes and detailed biographical appreciations demonstrates: Windsor Lewis (2003) provides many biographical and scientific details; Hirst (2012) explains Jassem's stress model; Gibbon (2012) describes meetings with Jassem; Gibbon, Hirst & Campbell (2012) co-edited a *Festschrift* on Jassem's 90th birthday. Gibbon (1976) and Karpiński (2016) provide detailed overviews of Jassem's contributions to prosody, and Jassem's Polish and English Wikipedia entries give background information (see also his CV in Gibbon et al. 2012). For me it was a special honour to be inducted into the Polish Phonetics Society as Honorary Member at the same time as Wiktor Jassem.

Although many of his studies written in Polish or published in Poland did not circulate widely, Wiktor Jassem's work in linguistic phonetics, experimental phonetics and speech technology has nevertheless informed and motivated a wide range of influential studies and remain as a lasting tribute to his intellectual originality and perceptive empirical discoveries. An accomplished pianist in his younger years, with sociable personality, impeccable RP accent and ironic, often mischievous wit, Wiktor Jassem was for myself mentor, co-author and close personal friend. His unusually broad range of scientific work, command of qualitative, experimental and engineering methodologies, and strong organisational abilities mark him as a gifted and influential polymath who is greatly missed and not forgotten.

References

- Gibbon, Dafydd. 1976. *Perspectives of intonation analysis*. Bern: Lang.
 Gibbon, Dafydd. 2012. Walks and talks with Wiktor Jassem. In Gibbon et al. (eds.), 227–228.
http://www.ptfon.pl/files/2012_05-01.pdf.

- Gibbon, Dafydd, Daniel Hirst & Nick Campbell (eds.). 2012. *Rhythm, melody and harmony in speech: Studies in honour of Wiktor Jassem*. Special Edition of *Speech and Language Technology* 14/15. Poznań: Polish Phonetics Society. <http://www.ptfon.pl/pl/slt#vol1415>.
- Hirst, Daniel. 2012. A tribute to Wiktor Jassem on the occasion of his 90th birthday. *Journal of the International Phonetic Association* 42(2), 55–83.
- Jassem, Wiktor. 1949. indikejʃn əv spi:tʃ riðm in ðə tra:nskripʃn əv edʒukeitid sʌðən inglɪʃ (Indication of rhythm in the transcription of Educated Southern English). *Le Maître Phonétique* III/92, 22–24.
- Jassem, Wiktor. 1952. *Intonation of conversational English (Educated Southern British)*. Wrocław: Wrocławskie Towarzystwo Naukowe. http://sldr.org/voir_depot.php?id=777&lang=en&sip=1.
- Jassem, Wiktor. 1983. *The phonology of Modern English*. Warszawa: Państwowe Wydawnictwo Naukowe. [2nd edition, 1987]
- Jassem, Wiktor. 1984. Automatic segmentation of the speech signal into phone-length elements. *Proceedings of the Tenth International Congress of Phonetic Sciences (ICPhS X)*, 318–321. Dordrecht: Foris.
- Jassem, Wiktor. 2003. Illustrations of the IPA: Polish. *Journal of the International Phonetic Association* 33(1), 103–107.
- Jassem, Wiktor, David R. Hill & Ian H. Witten. 1984. Isochrony in English Speech: Its statistical validity and linguistic relevance. In Dafydd Gibbon & Helmut Richter (eds.), *Intonation, accent and rhythm: Studies in discourse phonology*, 203–225. Berlin & New York: Walter de Gruyter.
- Karpiński, Maciej. 2016. Dimensions of intonation: Wiktor Jassem's contribution to the studies on the melody of speech. *Lingua Posnaniensis* LVIII(1), 25–38.
- Windsor Lewis, Jack. 2003. The contribution to English phonetic studies of Professor Wiktor Jassem. *The Phonetician* 87, 19–21. [Also in Gibbon et al. (eds.), 228–230.] http://www.ptfon.pl/files/2012_05-01.pdf.

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