

Interdisciplinary Musicology Conference: Afterthoughts

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The 3rd Conference on Interdisciplinary Musicology took place in Tallinn, Estonia, 15-19 Aug, 2007. The memorable event represents a phenomenon observable recently in several scholarly fields – an effort to look at the same problems from different points of view. As one who has practiced the interdisciplinary approach both with regard to musicology and to other fields not necessarily obviously related to my main area of research (which is linguistics), I would like to start my comments with some observations about interdisciplinary research in general.

Trying to describe an ideal situation for linguistic research, I have sometimes said that the best results are achieved when the analysis of a language is done by an individual who has both an insider's intuition as well as an outsider's perspective. One without the other is not sufficient. A non-native specialist might lack the intuition; a perfect bilingual might lack the perspective. The situation where one speaks no language without a foreign accent – the epitome of alienation – results in absence of both perspective and insight.

Since an insider's intuition and an outsider's perspective are hardly ever found in one person, the solution is cooperation. In the case of different fields, the solution is interdisciplinary research. But this kind of cooperation makes sense only if the result is better than either (or any) member of the team could have produced alone. To achieve this, there has to be an overlap of knowledge – both have to be able to evaluate the contribution of the other to avoid naïve mistakes. And in the ideal case, the results will be such that specialists from either area will accept them without reservation. Of course they do not necessarily have to agree with them, but they have to respect the scholarly methodology.

To a considerable extent, the presentations at the conference represented this kind of interdisciplinary cooperation. All papers had at least two authors, and in the majority of cases, the authors' specialties were sufficiently different to provide the "outsider's perspective" that is conducive to achieving an innovative point of view. As expected and foreseen, various aspects of musicology were discussed in all papers; the most frequent second specialty was psychology. But the scientific areas providing the outsider's view were varied indeed, ranging from artificial intelligence to psychophysiology by way of computer science, electrical engineering, linguistics, mathematics, neuroradiology, and neurobiology (the listing is not exhaustive). Since my own field is linguistics, I shall illustrate the interdisciplinary approach by looking at somewhat more detail at one of the papers that represents collaboration between a musicologist (Prof. Jaan Ross) and a linguist (Dr. Eva Liina Asu-Garcia).

Their paper, “Timing of Estonian music and the Pairwise Variability Index” (Ross, Asu-Garcia 2007), takes a look at the relationship between the rhythm of language and the rhythmic structure of songs by composers who are speakers of the language – in this case Estonian. The study is actually an innovative contribution to an old problem that has been investigated and debated for decades – the division of languages into two groups, stress-timed and syllable-timed (Pike 1945). Stress-timed languages (like English) have been claimed to exhibit isochrony – stressed syllables follow each other at equal intervals, regardless of the presence or number of unstressed syllables between the stresses. In syllable-timed languages (e.g. French) the basic unit of timing is the syllable.

Extensive research over the years has shown that the hypothesis has to be modified in various ways. Several papers were presented at the most recent International Congress of Phonetic Sciences (Saarbrücken, August 6–10, 2007) dealing with the problem. Benton et al. (2007) analyzed a data set of 175 minutes of natural Chinese and English speech and showed that while in general, Chinese and English fell into different stress categories, the data of individual speakers constituted an overlapping continuum. Dellwo et al. (2007) showed that languages can be demonstrated to belong to different classes by studying the durational variability of voiced and voiceless intervals (regardless of their occurrence in stressed or unstressed syllables). They showed that on this basis, English, Dutch, and Polish on the one hand, and Spanish, French, and Catalan on the other hand, constitute distinct groups – traditionally labeled stress-timed and syllable-timed.

The Pairwise Variability Index was originally designed to capture the amount of change between successive intervals (Grabe and Low 2002). Several researchers have applied the Pairwise Variability Index to instrumental music, hypothesizing that the rhythm of language has an influence on the music of that culture. Patel et al. (2006) analyzed 137 musical themes by 6 English composers and 181 musical themes by 10 French composers, and compared the results with spoken sentences (four female speakers of each language reading five sentences each). The results of the study (much more extensive than summarized here) showed that music did indeed reflect the pattern of durational contrast between successive vowels in spoken sentences.

The study by Ross and Asu approaches the relationship between speech and music by looking at compositions for voice – Estonian texts, set to music by Estonian composers. They also introduce another variable – different genre and style. A comparable number of solo songs was chosen from three composers: 16 from Mart Saar (1882–1963), 15 from Eduard Tubin (1905–1982), and 10 from Veljo Tormis (b. 1930). The older composers are influenced by the impressionism, expressionism and romanticism of the early 20th century; the youngest composer’s music is based on traditional folk music. The calculation of the Pairwise Variability Index was carried out on the basis of the vocal line in the score as composed for the singer’s part.

The results showed a significant difference in the PVI between Saar and Tubin on the one hand, and Tormis on the other hand. The PVI value for spoken Estonian, established in a different study (Asu and Nolan 2006), is very similar to and falls

between the values for the songs of Saar and Tubin. But Tormis represents a different style, which is in some respects closer to classical Estonian folksongs than the national romanticism of the two older composers.

The authors conclude that style- or genre-conditioned characteristics of music can override linguistically conditioned characteristics, and that the assumption of a one-to-one relationship between the rhythm of speech and music may be an oversimplification.

May this brief summary serve as illustration of the kind of interdisciplinary breadth and depth of most of the papers presented at the conference. The point of research is to go to the edge of existing knowledge, and take one step beyond; the purpose of a scholarly conference is to provide a forum where this can be shared and communicated. There were many such moments at the meetings in Tallinn.

But there was also much else – plenary sessions and presentations by leading researchers such as Johan Sundberg from the Royal Institute of Technology in Stockholm; a concert by the renowned Estonian Philharmonic Chamber Choir in the Gothic St. Nicholas church, where the contemporary program and the historical setting provided a vivid example of interdisciplinarity (to coin a word); a tour of the beautifully preserved mediaeval Old Town; and a festive reception in a restored castle that in itself represented the dream of a landowner only a century ago – built, fallen in ruin, and recreated as a reminder that ruins can be restored and that temporal as well as geographical distances can be bridged. But as mentioned above, in the opinion of this reviewer the main purpose of interdisciplinary research is to achieve a symbiosis between distinctly different research areas, to create something that transcends the boundaries of a single discipline. And to a considerable extent, this was achieved at the 3rd Conference on Interdisciplinary Musicology in Tallinn.

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