



UPPSALA UNIVERSITET
Institutionen för psykologi

Guy Madison

Department of Psychology
Box 1225
SE-751 42 UPPSALA
Sweden

e-mail Guy.Madison@psyk.uu.se
voice +46 18 471 21 42
fax +46 18 471 22 02

Date
2002-11-01

Professor Charles F. Zukoski
Vice Chancellor for Research
University of Illinois at Urbana-Champaign
420 Swanlund Administration Building, MC-304
601 East John Street
Champaign, Illinois 61820

Dear Prof. Zukoski,

This letter is to vouch for the relevance for research in music psychology of a music database as the one suggested by Dr. Downie. As you may yourself not be familiar with this kind of research, I want to stress that its main subject matter is not music in itself nor even human processing of music, but rather human emotion, perception, and cognition in general. This is because music – being a universal product of man – is an exemplar of human information processing. The immense span from true universals to the vast variety in musical communication across the world's cultures provides an exclusive window into several human faculties. The orderliness associated with universal properties endows the psychologist with a set of well-defined tools for designing experiments concerned with a range of phenomena from time perception (e.g., Madison, 1992; Madison, 1997; Madison, 2000a; Repp, 2000) to memory (e.g., Thompson, Balkwill, & Vernescu, 2000), for example. An area attracting much interest at the moment is emotional communication through music, including comparisons with verbal language and body expression, which can lead as far from the music itself as to the genetic foundations of emotion.

A very large database with structural and/or audio representations of music is a prerequisite for indulging in large-scale statistical and pattern property research. Until now, these approaches have been seriously hampered by the fact that the few available databases that actually contain representations of the music itself (not only bibliographic information, such as title, author, year, label, etc.) all contain a limited body of music, which is furthermore typically confined to a style or to other criteria associated with the database's history (Bainbridge, 2000; McCormick, 2001; McNab, Smith, Bainbridge, & Witten, 2001; OMRAS group, 2001; Schaffrath, 1997; Schimmelpfennig & Kurth, 2000).

Basically, the kind of research in question includes the determination and comparison of statistical features of musical structure (primarily pitch and duration) as well as more complex measures of pattern properties (e.g., Eerola, Järvinen, Louhivuori, & Toiviainen, 2001), and of information carried by the sound signal, typically in terms of **deviations** from the nominal pitches and durations given by the structure (e.g., Howat, 1995; Juslin & Madison, 1999; Madison, 1999; Madison, 2000c; Madison, 2000b; Repp, 1998).

I am a PhD in psychology at Uppsala University, with a curriculum including musicology, computer science, and the psychology of music. My graduate studies included the psychology of emotion, developmental-, personality-, and cognitive psychology, behavioral ecology, dynamical systems theory, and advanced work in statistical methods. I have recently conducted a number of listening studies to map the concept of swing in music to musical and experiential variables (e.g. Madison, 2001).

Cordially

Guy Madison

References

- Bainbridge, D. (2000, October 23). The role of music IR in the New Zealand Digital Library project. In Anonymous. *Proceedings of the International Symposium on Music Information Retrieval*: Plymouth, MA: Department of Computer Science.
- Eerola, T., Järvinen, T., Louhivuori, J., & Toiviainen, P. (2001). Statistical features and perceived similarity of folk melodies. *Music Perception*, 18, 275-296.
- Howat, R. (1995). What do we perform? In J. Rink (Ed.), *The practice of performance* (pp. 3-20). Cambridge, UK: Cambridge University Press.
- Juslin, P. N., & Madison, G. (1999). The role of timing patterns in the decoding of emotional expressions in music performances. *Music Perception*, 17, 197-221.
- Madison, G. (1992). Drumming performance with and without clicktrack - The validity of the internal clock in expert synchronization. In C. Drake, C. Auxiette, & C. Gerard (Eds.), *Proceedings of the Fourth International Workshop on Rhythm Perception and Production* (pp. 117-122). Bourges, France:
- Madison, G. Rhythm and time - the influence of time per se on the organisation of temporal patterns. In A. Gabrielsson (Ed.), Uppsala: Department of Psychology.
- Madison, G. (1999). Dimensions of expression in music - interaction between structure and performance variability. *Music Perception*,
- Madison, G. Drift and timing variability in isochronous interval production with and without music imagery. In C. Woods, G. Luck, R. Brochard, F. Seddon, & J. Sloboda (Eds.), Keele, UK: Keele University, Department of Psychology.
- Madison, G. (2000b). Properties of expressive variability patterns in music performances. *Journal of New Music Research*, 29, 335-356.
- Madison, G. (2000, July 23c). What does 'natural' variability in music performances mean to listeners? In F. Y. Doré (Ed.), Stockholm, Sweden: International Union of Psychological Science.
- Madison, G. (2001). Different kinds of groove in jazz and dance music as indicated by listeners' ratings. In Anonymous. Jyväskylä, Finland: Department of Musicology, University of Jyväskylä.
- McCormick, F. (2001). Cantometrics: Song and social culture. Hunter College, New York [On-line]. Available: <http://web.ukonline.co.uk/mustrad/articles/cantomet.htm>
- McNab, R. J. et al. (2001). The New Zealand Digital Library MELody inDEX. Department of computer science, University of Waikato [On-line]. Available: <http://nzdl2.cs.waikato.ac.nz/cgi-bin/gwmm?c=meldex&a=page&p=coltitle>
- OMRAS group (2001). OMRAS project summary. Department of computer science, King's College London [On-line]. Available: <http://www.omras.org/>
- Repp, B. H. (1998). A microcosm of musical expression I: Quantitative analysis of pianists' timing in the initial measures of Chopin's Etude in E major. *Journal of the Acoustical Society of America*, 104, 1085-1100.
- Repp, B. H. (2000). Subliminal temporal discrimination revealed in sensorimotor coordination. In P. Desain & W. L. Windsor (Eds.), *Rhythm perception and production* (pp. 129-142). Lisse, the Netherlands: Swets and Zeitlinger.
- Schaffrath, H. (1997). The Essen associative code: A code for folksong analysis. In E. Selfridge-Field (Ed.), *Beyond MIDI: the handbook of musical codes* (pp. 343-361). Cambridge, MA: MIT Press.
- Schimmelpfennig, J., & Kurth, F. (2000, October 23). MCML: Music contents markup language. In Anonymous. *Proceedings of the International Symposium on Music Information Retrieval*: Plymouth, MA: Department of Computer Science.
- Thompson, W. F., Balkwill, L.-L., & Vernescu, R. (2000). Expectancies generated by recent exposure to melodic sequences. *Memory and Cognition*, 28, 547-555.