

# Towards a Measure of Cognitive Distance in Melodic Similarity

**Eleanor Selfridge-Field**

*Center for Computer Assisted Research in the Humanities  
Stanford University  
Stanford, CA 94305-3076, USA  
esfield@stanford.edu*

## **Abstract**

We propose a still preliminary cognitive-distance metric to rank possible melodic matches. Its primary purpose is to discriminate between literal matches and psychologically valid matches in searches of large symbolically encoded datasets. Cognitive weightings are based selectively on studies in several disciplines related to music. Examples are drawn from both “intentional” searches (those collected manually by musicologists and ethnomusicologists) and those culled in computer “automatic” searches (those collected by computer) of the same melodic prototypes. Two variants of a provisional scoring system are considered.

*Music Query: Methods, Models, and User Studies (Computing in Musicology 13), 93-112.  
Published by CCARH and the MIT Press, 2004.*