

Perfect and Relative Pitch

Definition of Cognitive Musicology: Cognitive musicology is the set of all phenomena surrounding the computational modeling of musical thought and action. The focus on computational modeling suggests an emphasis on knowledge representation, which implies that the roots of cognitive musicology lie in artificial intelligence. The thought and action tag reminds us that the field also has historical ties to the psychology of music. Since the field investigates parallels between music and language, and incorporates biologically inspired models of computation in the form of neural networks and evolutionary programs, it is clear that cognitive musicology is a highly interdisciplinary field which lies within the bounds of cognitive science. According to Otto Laske, one of the foremost champions of the field, the goal of cognitive musicology is the computationally model musical knowledge with the aim of advancing understanding of music from the perspective of engagement in musical activities (e.g., composing, performing, listening, improvising). The computer is central to the enterprise since computer modeling invites comparison to cognitive processing, provides an exacting interactive medium in which to formulate and test executable theories, and facilitates the collection of data for analysis.

Length of Video: 5:14

Relevance to Musicology: This video relates in a direct way to the topics and information studied in cognitive musicology, as the video discusses a unique auditory ability. The video discusses the concept of perfect pitch, perfect pitch is the ability to identify and recreate a particular note heard without a reference tone. Someone with perfect pitch can hear a wind chime blowing in the wind outside and identify the chime as a particular musical note. As also discussed in *Music, the Brain, and Ecstasy*, perfect pitch is not a skill you can learn overnight. It takes years and years of repetition, listening and working with notes to train yourself to develop this special ability. Often when someone has this musical ability they have spent their whole lives playing an instrument and listening to all kinds of music. Relative pitch is also mentioned in the video, and this is the ability most people have when they believe they have perfect pitch, but truly do not. Relative pitch is the ability to identify a specific note heard, although unlike perfect pitch someone with relative pitch needs a reference note to compare the note heard to. In the end, this video does a great job at explaining the difference between these two unique musical abilities, while also showing how these special abilities can be attained.

Grade: $(\text{Relevance} * 40 + \text{Substance} * 20 + \text{Informative} * 20 + \text{Interesting} * 20)$
 $(R(1) * 40 + S(.8) * 20 + I1(.9) * 20 + I2(.9) * 20) = 92$