

## **What is Musical Prosody?** *Caroline Palmer*

No two performances of a piece of music are the same. Indeed, the very success of Western classical music relies on the fact that one piece of music can be performed thousands of times over hundreds of years, and still remain fresh and captivating generation after generation. The musical variation performers impart for the sake of expression – known as “musical prosody” – is what makes this possible. In this paper, Caroline Palmer discusses the forms and function of musical prosody, its relation to speech prosody, and whether it is rule-governed and distinct from other forms of musical structure.

She begins by explaining that musical prosody is an obligatory component of music performance. This is because many aspects of musical performance are underdetermined by musical notation. Factors such as intensity, tempo, articulation, and timbre are only partially specified by the composition, but much is left to the performer to decide. Indeed, the performer must make these interpretive decisions in order to present a musically acceptable performance. Thus, Palmer notes, every performance represents some choice of acoustic variables that give rise to perception of stress, accent, rhythm, and intensity contour.

Musical prosody alters with the intent of the performer, implying prosody serves the function of communicating a given performer’s interpretation of a piece. Performers asked to play either mechanically or expressively were able to produce very different prosodic results depending on their intent (Gabrielsson, 1987; Palmer 1989a; Seashore, 1936). The interesting question then becomes, Do performers have the freedom to express the musical features in acoustic signals in a primarily individualistic manner, or is this mapping constrained by cognitive principles shared across performers and listeners? It appears that prosody represents a combination of these two possibilities. Prosody allows for individualistic expression, but constrains individuality to certain shared ideas of what is considered musically appropriate.

Palmer lays out some of the major functions of prosody: segmentation, prominence, coordination, and emotional response. Throughout, Palmer makes many comparisons between the domains of speech and music. What I found interesting was that the nuances used to mark segmentation of units in music are similar to those used in speech, suggesting a general sensitivity (independent of domain) to acoustic properties that serve to mark important segments. Additionally, a distinction is made between emotional prosody and structural prosody. A few studies suggest neurological dissociation between emotional response and structural response to music. Peretz (2001) examined a brain damaged subject and found that she could classify the emotional content of a tune but was unable to recognize gross structural changes in pitch contour.

Palmer also examines the question of whether musical prosody is rule-governed. Several rule-based models have been proposed, and most use compositional scores as input and yield prosodic manipulations as output. However, most do not account for performer-specific variation. Though these models are somewhat successful, they often only account for one of many appropriate realizations of musical prosody.

Finally, Palmer discusses the role of prosody and learning and the relationship between linguistic and musical prosody. Prosodic cues may help develop a listener’s ability to identify smaller musical units which would then aid their ability to perceive higher-order relationship

Eric Cheng

2.8.06

ISE 599

among those units. In addition, Thiessen, Emerson, and Saffran, showed that infants learned number sequences that were sung with unique prosodic characteristics more easily than spoken number sequences, suggesting that prosody can benefit statistical learning in music and speech. In connecting musical and linguistic prosody, Palmer notes that musical training is associated with increased sensitivity to pitch processing in language tasks. In addition, musical training has been found to facilitate the ability to decode emotional meaning in speech prosody.

In conclusion, Palmer presents a thorough and interesting overview of the concept of musical prosody. What I found most striking about this paper was the strong connection between speech and music. The linguistic and musical domains seem so intimately intertwined that it suggests a generalized auditory perception system that is sensitive to prosodic cues in both domains.