MUSIC 3343

Music, Body, and Brain

GE Rationale and Assessment Plan

Rationale:

The course objectives (given under "Course Description" and "GE Visual and Performing Arts," on pp. 1-2 of the syllabus) address the Visual and Performing Arts expected learning outcomes by proposing to introduce students to the structural elements and performance contexts of many genres of music, and asking students to understand these genres according to the complex relationship between the cultural conditioning of the communities that produced the music and the music's physiological effects. In addition, the course objectives invite students to think critically and analytically about the disciplinary approaches to the topic and the information and misinformation that have circulated on certain aspects of the music-body relationship. This course is not devoted to sacralizing musical works as "museum pieces"; rather, the focus is on the musical experience in various contexts. Students will come away with a new level of understanding, which they can apply in the concert hall, at the stadium, in church, in private spaces where they listen online or on an ipod – wherever they listen to (or produce) music of all varieties.

The course readings introduce the technical terms for musical features to be discussed, and the theoretical approaches for studying the music-body-brain relationship. They also give additional examples and case studies beyond those to be presented in class. On occasion they analyze misinformation that has found its way into general circulation. The professor's "Class Readings" deal with issues for which the available published readings are too technical for a general undergraduate audience.

Some of the course topics relate directly to critical evaluation of the musical experience. For instance, evaluating the so-called "Mozart effect" (the notion that listening to Mozart makes one smarter, which surfaced in the early 1990s) involves identifying the relevant dynamic, metrical, and harmonic features of Mozart's music, and asking what other types of music share these features. (In week 8 the reading by Levitin gives the history of the controversy and illuminates the interaction between listening and cognitive processes; the complementary reading by Sacks deals more with individual clinical cases.) Other topics are more concerned with the way different cultures think about and understand music. For instance, the Western metaphor of "high" and "low" pitch (week 3) is rooted in visualized frequency relationships, whereas in Central and West Africa, the reversed metaphor has to do with the physical structure of the balaphone and the performer's position on the ground: the instrument's deep pitches are perched *high* over a resonator, and its high-frequency pitches are *low*, near the ground. Still other topics may seem to be only indirectly about pieces of music, and yet they powerfully illuminate the musical experience. A central example is "entrainment," the synchronization of internal rhythms (brainwaves/body motions) to external musical stimuli. In week 4 the topic will be introduced; in week 7 it will be explained as a

technical concept; in weeks 9 and 11 it will be applied to actual music – for instance, that of the Balkan singer who can memorize a lengthy epic without notation because it is sung rather than spoken. Indeed, entrainment applies to the lullaby (week 10), where the familiar timbre and soft dynamic level of the mother's voice, and absence of exciting rhythms, are only part of the story; by holding her baby close while singing, the mother facilitates a synchronization between the baby's internal rhythms and her own.

The central writing experience of the course, the research paper, will encourage students to think critically and write clearly about the musical experience; the required proposal for the paper gives them an opportunity for feedback on their ideas; and finding sources for the paper will improve their information literacy.

The in-class projects, where students will perform a listening exercise or watch a scientific demonstration together and discuss the experience, will give them practice at effective oral communication about music. In addition to the research paper, essay questions on exams will sharpen their written communication skills.

Assessment Plan:

The instructor will collect assessment data using both direct and indirect methods. Direct assessment will be accomplished with embedded exam questions. Two examples follow:

(related to week 4, "Music and body movements")
You will hear an excerpt from a piece of music; it will be played twice. Do you think this could be a work song? Write a paragraph explaining why or why not.

(related to week 2, "Hearing and listening")
Write an essay discussing the difference between attending a rock concert and attending a symphony orchestra concert. Focus on the attitude of the listener, the nature of the listening experience, and the reaction of the listener's body to the music.

Indirect assessment will be accomplished with a brief exit survey, appended to the final exam:

(Likert scale: not at all, not very much, a fair amount, a good amount, a great deal)
1. Has this course helped you to understand the relationship between music and our bodily responses to it?
2. Has this course helped you to understand how people in different societies appreciate and think about music in different ways?
3. Did this course improve your insight into how different disciplines work together to help us understand the music-body-brain relationship?

If the grades on an embedded essay question fall naturally into a bell curve, with the mean value at approximately 75% (i.e, at a grade of C), the learning outcome will be deemed a success. A higher number of excellent or very good answers is of course

desirable. As for the exit survey, no more than 25% should respond “not at all” or “not very much”; at least 25% should respond “a good amount” or “a great deal.”

The instructor will collect and archive the assessment data on his own computer. He will use these data and the SEI process to evaluate the success of the course and make adjustments accordingly.

The professor proposing this course, Udo Will, holds two doctorates, one in ethnomusicology and the other in neurobiology. He directs the School of Music’s graduate program in cognitive ethnomusicology, the study of music in culture using the methodologies of the cognitive sciences.