PERCEPTION AND COGNITION OF MUSIC
PSYCH 3AA3: Winter, 2006

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Objectives

In this course we will examine perceptual, cognitive, emotional, and developmental aspects of music. The roles of evolution, biology, innate factors, and experience in human musical activity and ability will be considered. The class will be run as a seminar, and students are expected to read the assigned papers before class and to participate in class discussions. Students will work in groups, do presentations in class, read primary source materials, and learn to think critically.

Evaluation

Two quizzes 20%
One group presentation 20%
One 12-page essay 25%
Final Exam 35%

Note 1: Course readings will be posted on WebCT. I will try to get the power point of my lectures on WebCT ahead of each class, but I don't promise! In any case, these power point slides are not complete and are not a substitute for what is covered in class.

Note 2: Your group will get its own group folder on WebCT. You can upload and download text, powerpoint, sound, and image files in this folder as you create your presentation.

Note 3: Although your essay will be on a similar topic to your group presentation, each person is to write their own essay without collaboration.

Note 4: The quizzes and exam will be open book.

McMaster's Grading Scale

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The instructor reserves the right to adjust the final marks up or down, on an individual basis, in the light of special circumstances and/or the individual's overall performance in the course.
**Academic Dishonesty Policy Reminder**

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g., the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at http://www.mcmaster.ca/senate/academic/ac_integrity.htm.

The following illustrates only three forms of academic dishonesty:
1. Plagiarism, e.g. submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.
Tentative Schedule

Tuesday January 8: Introduction
Thompson, Chapter 1

Friday, January 11: Evolutionary Perspectives on Music
Thompson, Chapter 2
Huron, D. Is Music an Evolutionary Adaptation?
Lewis, P.A. Musical Minds

Tuesday January 15: Evolutionary Perspectives on Music
Continued

Friday January 18: Auditory Scene Analysis
Handel, S. Breaking the Acoustic Wave into Events: Stream Segregation.

Tuesday January 22: Auditory Scene Analysis
Continued

Friday January 25: Pitch Perception I
Thompson, Chapter 3
Krumhansl, C. L. Perceiving Tonal Structure in Music.

Tuesday January 29: Pitch Perception I
Continued

Friday February 1: Pitch Perception II

Presentation 1: Development of sensitivity to consonance and dissonance

Presentation 2: Pitch representation in the brain
Zatorre, R. Neural Specialization for Tonal Processing

Tuesday February 5: Pitch Perception III

Presentation 3: Is it advantageous to have absolute pitch?
Miyazaki, K. Recognition of Transposed Melodies by Absolute-Pitch Processors

Friday February 8: Melody and Harmony I

Quiz 1
Thompson, Chapters 5 (pp. 1-15), 4 (pp. 1-14) and 7 (pp. 11-18)
Schellenberg, E.G. Simplifying the Implication-Realization Model of Melodic Expectancy.

Tuesday February 12: Melody and Harmony II
Friday February 15: Melody and Harmony III

Presentation 4: Development of sensitivity to scales and harmony
Trainor, L.J. & Trehub, S.E.  Key Membership and Implied Harmony in Western Tonal Music: Developmental Perspectives.

Presentation 5: How is harmonic structure processed in musicians and non-musicians?
Bigand et al., Sensory versus Cognitive Components in Harmonic Priming

Tuesday February 26: Rhythm and Timing
Thompson, Chapters 5 (pp. 11-19) and 4 (pp. 15-17)
Clarke, E.F.  Rhythm and Timing in Music.
Phillips-Silver, J & Trainor, L.J.  Feeling the Beat in Music

Friday February 29: Rhythm and Timing
Continued

Tuesday March 4: Rhythm and Timing II
Presentation 6: Development of metrical perception.
Hannon, E.E. & Trehub, S.E.  Metrical categories in infancy and adulthood

Friday March 7: Meaning and emotion in music I
Thompson, Chapters 8 and 7 (pp. 18-19)
Huron, Chapters 1 and 2 from Sweet Anticipation: Music and psychology of expectation

Tuesday March 11: Meaning and emotion in music I
Continued

Friday March 14: Meaning and emotion in music II (RED RIVER CONFERENCE)
Presentation 7: Are musical emotions the same as other emotions?

Presentation 8: Are emotional responses to music universal?
Balkwill, L. & Thompson, W.F.  A Cross-cultural Investigation of the perception of emotion in Music: Psychophysical and Cultural Cues

Tuesday March 18: Music and language
Thompson, Chapter 7 (pp. 1-11)
Presentation 9: What is the relation between music and language?

Friday March 21  NO CLASS GOOD FRIDAY

Tuesday March 25: Musical Development
Thompson, Chapter 4 and 7 (pp. 14-22)
Presentation 10: Effect of musical experience on the development of auditory cortex
Pantev, C. Timbre-Specific Enhancement of Auditory Cortical Representations in Musicians.

Friday March 28: (ICIS VANCOUVER)
   *Quiz 2*

Tuesday April 1: Music and Intelligence (ICIS VANCOUVER)
   Thompson, Chapter 10
   Schellenberg, E.G. Music Lessons Enhance IQ

Friday April 4: Imagining, composing, performing, and improvising music
   Thompson, Chapters 8 and 9

Tuesday April 8 Review