

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

90-100	85-89	80-84	77-79	73-76	70-72	67-69	63-66	60-62	57-59	53-56	50-52	0-49
A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

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

Trainor, L. J., & Heinmiller, B. M. The Development of Evaluative Responses to Music:

Infants Prefer to Listen to Consonance over 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

Huron, D. Tone and Voice: A Derivation of the Rules of Voice-Leading from Perceptual Principles.

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?

Trainor, L.J. & Schmidt, L.A. Processing Emotions Induced by Music.

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?

Peretz, I. Brain Specialization for Music: New Evidence from Congenital Amusia.

Koelsch, S., et al. Bach Speaks: A cortical "Language-Network" Serves the Processing of Music.

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.
Shahin, A. et al. Enhancement of Auditory Cortical Development by Musical Experience in
Children

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