

Musical Development and Performance

PSYCH 3MP3 / MUSICCOG 3MP3

Term 1, 2016

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Prerequisites: MUSICCOG 2MP3 (or MUSICCOG 2MA3) or PSYCH 2MP3 (or PSYCH 2MA3); and registration in a Music Cognition program (B.A., B.Arts.Sc., B.Mus., B.Sc.), or PNB 2XA3 or PSYCH 2E03 and registration in an Honours program, or ISCI 2A18 A/B; or permission of the instructor

Course Description

This course covers two broad aspects of music cognition. The first half of the course deals with the *developmental psychology of music*, focusing on the emergence of both perceptual and production skills for pitch and rhythm processing. The second half of the course examines the field of *performance studies*. It explores empirical, methodological and cultural aspects of the study of performance, with a principal focus on the performing arts (music, dance, and theatre).

Readings

See the last page of this syllabus for the assigned articles and book chapter.

Avenue to Learn

This course uses Avenue to Learn to post the course outline, lecture slideshows, articles, and other materials. Please go to avenue.mcmaster.ca in order to find out how to log onto the course's home page.

Please **do** read the **Announcements that I post on Avenue**. They contain useful information.

Course Evaluation

Quizzes

Starting in Week 2, there will be a quiz during the first 10 minutes of each class session, covering the two assigned papers for that week. The quizzes will consist of true/false questions, fill-in questions, or one-line writing questions. There will be 6 questions/quiz, 3 covering each paper.

Each quiz will count 1% toward the final grade, for a total of 10%. The final grading will be adjusted such that the lowest quiz score of the 10 quizzes will be dropped. This should also cover a missed class due to illness or travel.

Participation in Class Discussions

This course is being taught not as a standard lecture course but instead as something similar to a graduate seminar in which discussion is the principal means of learning the material. Hence, you will be required both to attend the classes and to actively participate in the class discussions.

You are required to make at least one substantive comment per class session (hopefully more) in order to earn the 0.5% participation score per class session, for a total of 5% of the final grade. As with the quizzes, only 9 out of the 10 classes will count towards the semester's participation score.

Exams

There will be two **exams**. *Exam 2 will constitute one part of the final exam*. In addition, there will be a separate **comprehensive final exam** that will constitute the second part of the final exam and that will cover material from the entire course. The exams will consist of true-false questions, fill-in questions, and short-answer questions. The comprehensive final will consist of fill-in questions only.

Exams will cover the assigned readings. In addition to concepts, you will be tested on *graphical* material, such as figures resembling those from the assigned readings.

Presentation

You will be asked to do a presentation about one (assigned) article in the course. It will count for 10% of your final grade. It should be done using a Powerpoint file that contains all of the figures and tables from the paper, as well as introductory and discussion-related material. The maximum time for the presentation will be 45 minutes, including all discussion time. As the

presenter, you will also be responsible for leading a class discussion of the paper that engages the students in the discussion.

You will be required to meet with the instructor the week before your presentation in order to discuss the paper, get clarification on confusing points, and discuss the general outline of your talk, Powerpoint presentation, and review article (see below).

The presentation will be marked on a *pass/fail* basis. You will be asked to submit your Powerpoint presentation to the instructor so that it can be posted on Avenue to the class as a whole.

Review article

You will be asked to write a 4-5-page (double-spaced) review article on the topic of your assigned article. The paper will count for 15% of the final grade. It will be due on *the Monday 2 weeks after your presentation date*. The paper should include a discussion of **5 references** (articles or book chapters) beyond the assigned paper. Hence, the paper should be about *the general topic* and not just be a critique of the assigned paper. The paper should take the form of a small review article (what's referred to in the literature as a "mini-review"). Please submit this BOTH as a hard copy and as a .doc file.

NOTE: Citations and references should be written according to American Psychological Association (APA) style. Be meticulous when creating your reference list. If you are not familiar with how to create citations or references, please consult the course TA.

Contribution of the Assessments to the Final Grade

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|-------------------------------------|------------------|
| Quizzes | 10% of the grade |
| Participation | 5% of the grade |
| 2 exams (each one 20% of the grade) | 40% of the grade |
| Comprehensive final | 20% of the grade |
| Presentation | 10% of the grade |
| Review article | 15% of the grade |

An Important Note about Missing the Midterm (Exam 1)

If you are too sick to write the midterm, you are required to inform the instructor of this by email or phone, preferably *before* the midterm but no more than 48 hours after the midterm. In addition, you must schedule a time with the TA to take a make-up midterm no more than one week after the midterm date. **Please understand that submitting an MSAF note does NOT exempt you from writing the midterm.** Failure to take the midterm by one week after the midterm date will result in a **total loss of credit for the exam**, unless you have certification from a doctor that you have a chronic condition and are unable to write the exam at that time.

McMaster University Grading Scale

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

Academic Integrity

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. The academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour 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 types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the 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.

A Note from the University

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

Weekly Lecture Topic and Reading Schedule

| Date | Topic | Articles/Chapters |
|--------------|--|---|
| September 12 | (1) Pitch perception I: Pitch and interval | Folland (2012) Plantinga (2005) |
| September 19 | (2) Pitch perception II: Scale and harmony | Plantinga (2014) Nawrot (2003) |
| September 26 | (3) Pitch production: Singing | Young (2002) Demorest (2015) |
| October 3 | (4) The music/language relationship | Brandt (2012) review Fernald (1989) |
| October 10 | (5) Reading Week | |
| October 17 | (6) Rhythm perception and production | Soley (2010) Provasi (2003) |
| October 24 | (7) Midterm | |
| October 31 | (8) The nature of performance | Go over midterm Schechner (2013) review Konvalinka (2011) LIVELab tour |
| November 7 | (9) Audience analysis | Radbourne (2009) review Shoda (2016) |

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| November 14 | (10) Interaction and coordination in performance | Goebel (2009) Timmers (2014) |
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| November 21 | (11) Expression in performance | Eerola (2013) Van Dyke (2013) |
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| November 28 | (12) Improvisation | Goldman (2013) Norgaard (2014) |
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| December 5 | (13) Motor learning | Pauwels (2014) Andrieux (2013) |
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| December ? | Final exam | |
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References for Articles (all are posted on Avenue)

Week 1: Pitch perception I: Pitch and interval

Folland, N. A., Butler, B. E., Smith, N. A., & Trainor, L. J. (2012). Processing simultaneous auditory objects: Infants' ability to detect mistuning in harmonic complexes. *Journal of the Acoustical Society of America*, *131*(1), 993-997.

Plantinga, J., & Trainor, L. J. (2005). Memory for melody: Infants use a relative pitch code. *Cognition*, *98*(1), 1-11.

Week 2: Pitch perception II: Scale and harmony

Plantinga, J., & Trehub, S. E. (2014). Revisiting the innate preference for consonance. *Journal of Experimental Psychology: Human Perception & Performance*, *40*(1), 40-49.

Nawrot, E. S. (2003). The perception of emotional expression in music: Evidence from infants, children and adults. *Psychology of Music*, *31*(1), 75-92.

Week 3: Pitch production: Singing

Young, S. (2002). Young children's spontaneous vocalizations in free-play: Observations of two- to three-year-olds in a day-care setting. *Bulletin of the Council for Research in Music Education*, *152*, 43-53.

Demorest, S. M., & Pfordresher, P. Q. (2015). Singing accuracy development from K-adult: A comparative study. *Music Perception*, *32*(3), 293-302.

Week 4: The music/language relationship

Brandt, A., Gebrian, M., & Slevc, L. R. (2012). Music and early language acquisition. *Frontiers in Psychology*, *3*, 327.

Fernald, A. (1989). Intonation and communicative intent in mothers' speech to infants: Is the melody the message? *Child Development*, *60*(6), 1497-1510.

Week 6: Rhythm perception and production

Soley, G., & Hannon, E. E. (2010). Infants prefer the musical meter of their own culture: A cross-cultural comparison. *Developmental Psychology*, *46*(1), 286-292.

Provasi, J., & Bobin-Begue, A. (2003). Spontaneous motor tempo and rhythmical synchronisation in 2¹/₂- and 4-year-old children. *International Journal of Behavioral Development*, *27*(3), 220-231.

Week 8: The nature of performance

Schechner, R. (2013). What is performance? In R. Schechner *Performance studies: An introduction*, 3rd ed. (pp. 28-57). New York: Routledge.

Konvalinka, I., Xygalatas, D., Bulbulia, J., Schjødt, U., Jegindø, E. M., Wallot, S., Van Orden, G., & Roepstorff, A. (2011). Synchronized arousal between performers and related spectators in a fire-walking ritual. *Proceedings of the National Academy of Sciences*, *108*(20), 8514-8519.

Week 9: Audience analysis

Radbourne, J., Johanson, K., Glow, H., & White, T. (2009). The audience experience: Measuring quality in the performing arts. *International Journal of Arts Management*, *11*(3), 16-29.

Shoda, H., Adachi, M., & Umeda, T. (2016). How live performance moves the human heart. *PLoS ONE*, *11*(4), e0154322.

Week 10: Interaction and coordination in performance

Goebel, W., & Palmer, C. (2009). Synchronization of timing and motion among performing musicians. *Music Perception*, *26*(5), 427-438.

Timmers, R., Endo, S., Bradbury, A., & Wing, A. M. (2014). Synchronization and leadership in string quartet performance: A case study of auditory and visual cues. *Frontiers in Psychology*, *5*, 645.

Week 11: Expression in performance

Eerola, T., Friberg, A., & Bresin, R. (2013). Emotional expression in music: Contribution, linearity, and additivity of primary musical cues. *Frontiers in Psychology*, *4*, 487.

Van Dyck, E., Maes, P.-J., Hargreaves, J., Lesaffre, M., & Leman, M. (2013). Expressing induced emotions through free dance movement. *Journal of Nonverbal Behavior*, *37*, 175-190.

Week 12: Improvisation

Goldman, A. (2013). Towards a cognitive-scientific research program for improvisation: Theory and an experiment. *Psychomusicology*, *23*(4), 210-221.

Norgaard, M. (2014). How jazz musicians improvise: The central role of auditory and motor patterns. *Music Perception*, *31*(3), 271-287.

Week 13: Motor learning

Pauwels, L., Swinnen, S. P., & Beets, I. A. M. (2014). Contextual interference in complex bimanual skill learning leads to better skill persistence. *PLoS ONE*, *9*(6), e100906.

Andrieux, M., & Proteau, L. (2013). Observation learning of a motor task: Who and when? *Experimental Brain Research*, *229*(1), 125-137.