

The Psychology of Music

Haverford College
Psychology 303
Fall 2024

Marilyn Boltz (pronouns of she/her). You can address me as Marilyn or Professor Boltz

Contact Information: mboltz@haverford.edu

Class Hours: M, W: 10 – 11:25 am

Office Hours: The hour before class or by appointment. Sharpless 406 or Zoom.

Course Description:

Music is a human universal that has been found throughout history and across different cultures of the world. Why, then, is music so ubiquitous and what functions does it serve? The intent of this course is to examine this question from multiple psychological perspectives. Within a biological framework, it is useful to consider the evolutionary origins of music, its neural substrates, and the development of music processing. The field of cognitive psychology raises questions concerning the relationship between music and language, and music's ability to communicate emotive meaning that may influence visual processing and body movement. From the perspectives of social and personality psychology, music can be argued to serve a number of social functions that, on a more individual level, contribute to a sense of self and identity. Lastly, musical behavior will be considered in a number of applied contexts that include consumer behavior, music therapy, and the medical environment. Prerequisites: Psychology 100, 200, and at least one advanced 200-level course.

Course Objectives:

- Understand musical behavior from different psychological perspectives
- Analyze critically when engaging with scientific findings and claims
- Synthesize data and theory to construct persuasive arguments
- Communicate ideas to others in a clear and cogent fashion
- Evaluate the current state of the field to identify gaps and avenues of future research
- Apply your knowledge to other disciplines and to issues that may benefit society

Assessment and Grading:

Attendance	15%
Discussion and Participation	15%
Paper Presentation	15%
Topic Presentation	15%
Synthesis Paper	20%
Proposal	20%

Attendance, Discussion & Participation

You are expected to attend all classes, do the assigned readings, and participate in classroom discussions. A diverse range of views is welcomed and encouraged: please be respectful toward others during their expression. In addition to oral contributions during class, each of you will be asked to generate at least 2 written discussion questions each week based on the assigned readings. If you will be late to class or need to be absent, please let me know in advance.

Paper Presentation

During the semester, each student will be responsible for presenting a ~45 minute review of a paper that has been assigned for a given topic (entitled **Student Paper Presentation**), and then leading a subsequent discussion session. Your presentation should consist of a set of PowerPoint slides that outline the main ideas within the paper, key research that is discussed, the authors' conclusions and at the very end, a set of 5-6 discussion questions you have developed to promote dialogue. Please

send your PowerPoint slides to me (mboltz@haverford.edu) the night before class, and I will then post them on the Moodle course page to share with everyone.

Topic Presentation

Third, each of you will be required to give an in-class presentation on a topic designed to provide greater breadth to an area discussed in class. You should plan on speaking for ~30 min. and rely on a PowerPoint presentation (which I will then post on Moodle so that it is available to everyone). I've provided a set of presentation topics (entitled **Topic Presentation**) on the syllabus and will try to ensure that everyone receives a topic that is acceptable to them. Each presentation should be followed by a discussion session and focused upon a set of readings that have been assigned in advance. On the syllabus, you will notice that I've provided some suggested readings for several of the topics but these are only suggestions which may or may not be useful. You should search for other resources and feel free to assign these instead of the ones I've suggested.

Synthesis Paper

In addition to the presentations, you will also be required to write a paper for the course. You are free to choose any topic that interests you as long as it involves some aspect of psychomusicology and is different from those of your class presentations. It could be a topic that was never discussed (e.g., music performance or dance; composition and improvisation; earworms; music creativity; particular uses of musical therapy) or a topic that was addressed in class but explored from a different perspective. In either case, the paper should be around 15 pages and rely on the APA style of referencing. Most of the paper should serve as a review of the relevant literature but the last 2-3 pages should provide your own thoughts and evaluation (e.g. critiques or gaps in the literature; ideas for future research). Your paper will be due on **October 30**.

Proposal

The final requirement of the course is intended to be more innovative and provide an opportunity to pursue your own interests. On the one hand, it might consist of an original research project designed to address some aspect of music psychology. If you choose this option, the proposal should satisfy the following criteria: a) represents a novel study that, to the best of your knowledge, has not previously been done; b) relies on the experimental method (vs. correlation, multiple regression, or other nonexperimental techniques); and c) and is a factorial design with at least two independent variables. This proposal should be described in a paper that is ~12 pages and contains the following sections: an Introduction that reviews the relevant literature and a rationale for the particular question(s) and predictions you are posing; a Methods section (along with its appropriate sub-sections) that describes *how* you would do the study; a section relating the predicted pattern of results; and, of course, a Reference section.

As another option, you might develop a novel application that could be used by others and is based on established principles of psycho-musicology. Perhaps it's some sort of educational program; a website; an app that can be downloaded to a smartphone; or a marketing strategy - these are just some possibilities among many others. If you pursue this route, then you should describe your proposal in a paper of ~12 pages that consists of four main sections: an Introduction that relates the relevant background literature; a description of the application itself; a statement/argument on both how and why this application would be useful to others; and finally, a Reference section.

Regardless of which type of paper you write, your proposal is due on **December 4**. Again, it should be a topic that's different from your other assignments in this course.

Course Policies:

➤ **Academic Integrity**

- All your work for this course is expected to be in accord with Haverford's Honor Code: <http://honorcouncil.haverford.edu/the-code/>
- All the work you turn in, whether for a grade or not, must be your own and all sources in all media must be accurately documented.

- When you document sources, use APA format as your guide. See https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_for_mat.html

- You should not turn in writing, in part or in whole, that you have submitted or will submit in another course or elsewhere.

➤ **Phone and Laptop Etiquette:** Please turn off or silence your cell phones, and please do not text, surf the web, or use social media during class time. Such activities are not only rude in the context of a classroom but distracting to you, your neighbors, and me. Laptops are permitted for note taking.

➤ **Academic Support and Accommodations:**

I am committed to partnering with you on your academic and intellectual journey. I also recognize that your ability to thrive academically can be impacted by your personal well-being and that stressors may impact you over the course of the semester. If the stressors are academic, I welcome the opportunity to discuss and address those stressors with you in order to find solutions together. If you are experiencing challenges or questions related to emotional health, finances, physical health, relationships, learning strategies or differences, or other potential stressors, I hope you will consider reaching out to the many resources available on campus. These resources include CAPS (free and unlimited counseling is available), the Office of Academic Resources, Health Services, Professional Health Advocate, Religious and Spiritual Life, the Office of Multicultural Affairs, the GRASE Center, and the Dean's Office. Additional information can be found at <https://www.haverford.edu/deans-office-student-life/offices-resources>.

Additionally, Haverford College is committed to creating a learning environment that meets the needs of its diverse student body and providing equal access to students with a disability. If you have (or think you have) a learning difference or disability – including mental health, medical, or physical impairment – please contact the Office of Access and Disability Services (ADS) at hc-ads@haverford.edu. The Director will confidentially discuss the process to establish reasonable accommodations. It is never too late to request accommodations – our bodies and circumstances are continuously changing.

Students who have already been approved to receive academic accommodations and want to use their accommodations in this course should share their accommodation letter and make arrangements to meet with me as soon as possible to discuss how their accommodations will be implemented in this course. Please note that accommodations are not retroactive and require advance notice in order to successfully implement.

If, at any point in the semester, a disability or personal circumstances affect your learning in this course or if there are ways in which the overall structure of the course and general classroom interactions could be adapted to facilitate full participation, please do not hesitate to reach out to me.

It is a state law in Pennsylvania that individuals must be given advance notice that they may be recorded. Therefore, any student who has a disability-related need to audio record this class must first be approved for this accommodation from the Director of Access and Disability Services and then must speak to me. Other class members need to be aware that this class may be recorded.

Biological Perspectives

A. Evolutionary Origins of Music

When did music evolve in the overall evolutionary scheme of events and why? Does music serve any adaptive purposes or is it, as some have argued, merely “auditory cheesecake”? What types of evidence allows us to make inferences about the origins of music?

Reading:

Thompson, W.F. (2015). Origins of Music. In W.F. Thompson, *Music, thought, and feeling: Understanding the psychology of music*. Oxford University Press.

Levitin, D.J. (2006). The Music Instinct. In D.J. Levitan, *This is Your Brain on Music*. (pp. 241-261. A Plume Book: London, England.

B. Relationship Between Music and Language?

Several theorists have argued that music and language evolved in parallel to one another. Indeed, music and language display a remarkable number of similarities in their structure and syntax and, at a neural level, appear to be mediated by similar cortical regions. Given this, how can we conceptualize the relationship between music and language?

Reading:

Mithin, S. (2009). The music instinct: The evolutionary basis of musicality. *Annals of the New York Academy of Sciences*, 1169, 3-12. **(Student paper presentation)**

Fitch, W.T. (2006). The biology and evolution of music: A comparative perspective. *Cognition*, 100, **Read pp. 176-181.**

Snowdon, C. T., Zimmermann, E., & Altenmüller, E. (2015). Music evolution and neuroscience. *Progress in Brain Research*, 217, 17-34.

C. Insights from Developmental Psychology & Music Acquisition

One means in which to examine the evolutionary and biological bases of music is to consider whether newborn infants display any innate processing capabilities for musical events.

Reading:

Trehub, S.E. (2009). Music lessons from infants. In S. Hallam, I. Cross & M. Thaut (Eds.), *The Oxford handbook of music psychology*. Oxford University Press.

Trehub, S.E. (2006). Musical predispositions in infancy. *Annals of New York Academy of Sciences*, 930, 1-27.

Trehub, S.E. & Hannon, E.E. (2006). Infant music perception: Domain-general or domain-specific mechanisms? *Cognition*, 100, 73-99.

Two student paper presentations: one on musical predispositions (based on Trehub (2006) and Trehub & Hannon (2006)) - other on maternal music (based on Trehub (2009) and Trehub (2006))

➤ Topic Presentation: Music in the Womb

Suggested Reading:

Tan, S., Pfordresher, P. & Harre, R. (2010). Emergence of sound and music perception. From Tan, Pfordresher, & Harre (2010), *Psychology of music: From sound to significance*. (pp. 133-142).

Parncutt, R. (2009). Prenatal development and the phylogeny and ontogeny of music. In S. Hallam, I. Cross & M. Thaut (Eds.), *The Oxford handbook of music psychology*. Oxford University Press.

Parncutt, R. (2006). Prenatal development. In G. McPherson (Ed.), *The child as musician: A handbook of musical development*. Oxford University Press.

D. Neural Substrates of Music Processing

What are the neural substrates of musical behavior and how is musical listening and performance mediated by the brain? How might this research be informed by individuals displaying different types of disorders in musical processing?

Reading:

Thompson, W.F. (2015). Music and the brain. In W.F. Thompson, *Music, thought, and feeling: Understanding the psychology of music*. Oxford University Press.

Levitin, D.J. & Tirovolas, A. (2009). Current advances in the cognitive neuroscience of music. *Annals of the New York Academy of Sciences*, 1159, 211-231.

Olszewska, A. M., Gaca, M., Herman, A. M., Jednoróg, K., & Marchewka, A. (2021). How musical training shapes the adult brain: Predispositions and neuroplasticity. *Frontiers in Neuroscience*, 15, 1-16.

(Student paper presentation)

➤ **Topic Presentation on Musical Chills**

Suggested Reading:

Freedberg, D., & Gallese, V. (2007). Motion, emotion and empathy in esthetic experience. *Trends in cognitive sciences*, 11(5), 197-203.

Grewe, O., Nagel, F., Kopiez, R., & Altenmüller, E. (2007). Listening to music as a re-creative process: Physiological, psychological, and psychoacoustical correlates of chills and strong emotions. *Music Perception*, 24(3), 297-314.

Huron, D. (2010). Music expectancy and thrills. From P.N. Juslin & J.A. Sloboda, *Handbook of Music and Emotion*. (pp. 591-604). Oxford University Press.

Cognitive Perspectives

A. Cognitive Benefits from Music Training?

Does learning to play a musical instrument, and musical training more generally, serve to enhance certain cognitive skills that are used in different domains of life?

Reading:

Thompson, W.F. (2015). Music and other abilities. In W.F. Thompson, *Music, thought, and feeling: Understanding the psychology of music*. Oxford University Press. **(Student paper presentation)**

Rauscher, F.H. (2009). The impact of music instruction on other skills. In S. Hallam, I. Cross & M. Thaut (Eds.), *The Oxford handbook of music psychology*. (pp. 244-252). Oxford University Press.

Trainor, L.J. & Corrigall, K.A. (2010). Music acquisition and effects of musical experience. Pages 113-119. In M.R. Jones, R. Fay & A. Popper (Eds.), *Music Perception: Springer Handbook of Auditory Research*. Springer Press.

B. Music and Emotion

Does music have meaning? One way in which this question has been addressed is to consider music's ability to communicate and instill emotional experiences within listeners.

Reading:

Juslin, P. & Sloboda, J. (2013). Music and emotion. In D. Deutsch (Ed.), *The psychology of music*. (pp. 583-645).

Juslin, P. N. (2013). From everyday emotions to aesthetic emotions: Towards a unified theory of musical emotions. *Physics of life reviews*, 10(3), 235-266. **(Student paper presentation on that part of the paper concerning the eight mechanisms that induce emotion.)**

C. Music and Motion

People move as music moves. But are the gestures and body movements of a listener in any way lawfully related to musical structure and meaning? What about the movements of musical performers? What functions might these serve, not only to a listening audience but to other members of a performing ensemble?

Reading:

Boltz, M.G. (2013). Music videos and visual influences on music perception and appreciation. Should you want your MTV? In S. Tan, A.J. Cohen, R. Kendall & S. Lipscomb (Eds.), *Psychology of music in multimedia*. Oxford University Press.

Dahl, S. & Friberg, A. (2007). Visual perception of expressiveness in musicians' body movements. *Music Perception*, 24, 433-454.

Eitan, Z. & Granot, R. (2006). How music moves: Musical parameters and listeners' images of motion. *Music Perception*, 23, 221-247. **(Student paper presentation)**

➤ Topic Presentation: Music and Synesthesia

Suggested Reading:

Martino, G. & Marks, L.E. (2001). Synesthesia: strong and weak. *Current Directions in Psychological Science*, 10 (2), 61-65.

Ward, J. (2013). Synesthesia. *Annual Review of Psychology*, 64, 49-75.

Sacks, O. (2007). The Key of Clear Green: Synesthesia and Music. *Musicophilia: Tales of Music and the Brain*. New York: Knopf Books.

D. Music/Film Interactions

One way in which both the motive and emotive influence of music has been used for artistic purposes is as an accompanying soundtrack to a visual story (i.e., film). Certainly, music can be used as a means in which to enhance the emotional impact of a scene but what are some other effects that music may exert upon story comprehension, interpretation, and appreciation?

Reading:

Bordwell, D. & Thompson, S. (2004). Sound in the cinema. From *Film Art: An Introduction*. McGraw Hill. **(Student paper presentation)**

Cohen, A. J. (1999). Functions of music in multimedia: a cognitive approach. *Music, mind, and science*, 40-68.

Cohen, A.J. (2013). Music as a source of emotion in film. In P.N. Juslin & J.A. Sloboda (Eds.), *Music and Emotion*, Oxford University Press.

Social and Personality Perspectives

A. Social Functions of Music

Some theorists have argued that music emerged as a means in which to bring people together and promote social cooperation. In this section, we'll consider some different ways in which this occurs and some ways this may exert an influence at the individual level.

Reading:

Mithin, S. (2006). Making music together. From S. Mithin (Au.), *The singing Neanderthals: The origins of music, language, mind, and body*. Harvard University Press.

Gregory, A. (1997). The roles of music in society: The ethnomusicological perspective. In A. North & D. Hargreaves (Eds.), *The social psychology of music*. Oxford University Press.

Trehub, S.E., Weiss, M.W. & Cirelli, L.K. (2019). Musicality across the lifespan. From Foundations in Music Psychology by P.J. Rentfrow & D.J. Levitin (Eds.). MIT Press. (only pp. 265-271). **(Student paper presentation of these six pages and above paper by Gregory)**

➤ **Topic Presentation: Music and Politics/Protest**

Suggested Reading:

Damodaran, S. (2016). Protest and music. In *Oxford Research Encyclopedia of Politics*.

Garofalo, R. (2013). Pop goes to war, 2001-2004: US popular music after 9/11. *Music in the post-9/11 world*, 3-26.

Street, J. (2003). 'Fight the power': The politics of music and the music of politics. *Government and Opposition*, 38(1), 113-130.

B. Musical Tastes and Preferences

What set of factors determine the types of music we most prefer? Do people who share musical preferences also share certain attributes and, if so, then on what dimensions? Lastly, are some musical tastes and preferences influenced by the culture in which we live?

Reading:

Rentfrow, P.J. & Gosling, S.D. (2003). The do re mi's of everyday life: The structure and personality correlates of music preferences. *Journal of Personality and Social Psychology*, 84, 1236-1256.

Rentfrow, P.J., Goldberg, L.R. & Levitan, D.J. (2011). The structure of musical preferences: A five-factor model. *Journal of Personality and Social Psychology*, 100, 1139-1157.

Rentfrow, P.J. & Greenberg, D.M. (2019). The social psychology of music. From Foundations in Music Psychology by P.J. Rentfrow & D.J. Levitin (Eds.). MIT Press. (only pp. 833-847). **(Student paper presentation)**

Rentfrow, P.J. & Gosling, S.D. (2007). The context and validity of music-genre stereotypes among college students. *Psychology of Music*, 35, 306-326. **(Student paper presentation)**

Rentfrow, P.J., Goldberg, L.R. & Zilca, R. (2011). Listening, watching, and reading: The structure and correlates of entertainment preferences. *Journal of Personality*, 79, 223-258

➤ **Topic Presentation: Cultural Differences in Music**

Suggested Readings:

Mehr, S. A., Singh, M., Knox, D., Ketter, D. M., Pickens-Jones, D., Atwood, S., ... & Glowacki, L. (2019). Universality and diversity in human song. *Science*, 366(6468).

Tan, S.L., Pfordresher, P. & Harre, R. (2010). Chapter 15: Culture and Music. From *Psychology of Music: From Sound to Significance*. Psychology Press.

Trehub, S., Becker, J. & Morley, I. (2015). Cross-cultural perspectives on music and musicality. *Philosophical Transactions. The Royal Society B*370.

Music in Applied Contexts

A. Some General Uses of Music

As the poet William Congreve noted, "Music hath charms to soothe a savage beast". Indeed, music is used in a number of applied settings for a variety of purposes. This final section of the course

considers a selected sample of these applications in the contexts of marketing and consumer behavior, psychotherapy, and the medical environment.

Reading:

Sloboda, J., Lamont, A. & Greasley, A. (2009). Choosing to hear music: Motivation, process, and effect. In S. Hallam, I. Cross & M. Thaut (Eds.), *The Oxford handbook of music psychology*. Oxford University Press.

B. Consumer and Environmental Atmospherics

Reading:

North, A. C. & Hargreaves, D. J. (2009). Music and consumer behaviour. *Oxford handbook of music psychology*, 481-490. Oxford University Press.

Hargreaves, D. & Krause, A. (2016). Music and consumer behavior. In S. Hallam, I. Cross & M. Thaut (Eds.), *The Oxford handbook of music psychology*. (pp. 1-11). Oxford University Press.

C. Music in the Clinical and Medical Environments

➤ **Topic Presentation: Sonic Seasoning**

Suggested Reading:

Spence, C., Wang, Q. J., Reinoso-Carvalho, F., & Keller, S. (2021). Commercializing sonic seasoning in multisensory offline experiential events and online tasting experiences. *Frontiers in Psychology*, 4150.

➤ **Topic Presentation: Music Therapy**

Suggested Reading:

Hodges, D. (2019) Music and health. In D. Hodges, *Music in the human experience: An introduction to music psychology*. Routledge.

Raglio, A., & Oasi, O. (2015). Music and health: what interventions for what results?. *Frontiers in psychology*, 6, 230.

➤ **Topic Presentation: Music in Sports and Exercise**

Suggested Reading:

Karageorghis, C. I., & Priest, D. L. (2012). Music in the exercise domain: a review and synthesis (Part I). *International review of sport and exercise psychology*, 5(1), 44-66.

Websites of Potential Interest

- American Music Therapy Association: <https://www.musictherapy.org/about/musictherapy/>
- Music Therapy Research Blog: <https://www.musictherapyresearchblog.com/>
- Society for Music Perception and Cognition: <https://www.musicperception.org/>
- *The Art of the Score: The Mind, Music and Moving Images - Exploring the intersection of music cognition and filmmaking, including a conversation between Ani Patel and the Coen Brothers*

- *Science News (special issue: A Mind for Music)*
- *Philosophical Transactions: Special Issue 'Biology, cognition and origins of musicality'*
- Music Cognition as a Career Path: <https://majoringinmusic.com/music-cognition-career-path/>
- Resources in Music Psychology: <https://musicpsychology.co.uk/resources/>
- Music, Medicine, Health, and Cognition: A Resource List
https://www.ethnomusicology.org/members/group_content_view.asp?group=144588&id=452824
- Music Cognition Interest Group: <https://societymusictheory.org/interest-groups/cognition>

Topic and Presentation Schedule

Psychology 303 - Psychology of Music

Fall 2022

Wednesday – Sept. 4 – Overview and Introduction; Evolutionary Origins of Music

Monday – Sept. 9 – Evolutionary Origins of Music

Wednesday - Sept. 11 – Evolutionary Origins of Music; Music and Language – **Mithin paper**

Monday – Sept. 16 - Music Acquisition – **Music Predispositions from Trehub; Maternal Music from Trehub**

Wednesday - Sept. 18 - Music Acquisition –**Topic Presentation on Music in the Womb**

Monday - Sept. 23 – Music Acquisition; Neural Substrates

Wednesday - Sept. 25 – Neural Substrates - **Topic Presentation on Musical Chills**

Monday – Sept. 30 – Neural Substrates – **Olszewska, et.al. paper**

Wednesday – Oct. 2 – Cognitive Benefits – **Thompson Chapter**

Monday – Oct. 7 – Music and Emotion

Wednesday - Oct. 9 - Music and Emotion – **Juslin paper on mechanisms of music mood induction**

Monday – Oct. 14 – **Fall Break**

Wednesday – Oct. 16 – **Fall Break**

Monday – Oct. 21 – Music and Motion – **Eitan & Granot paper**

Wednesday - Oct. 23 – Music and Motion - **Topic Presentation on Synesthesia**

Monday – Oct. 28 – Music and Film – **Bordwell & Thompson chapter**

Wednesday – Oct. 30 – **Synthesis Paper Due**; Music and Film

Monday – Nov. 4 – Music and Film

Wednesday - Nov. 6 – Social Functions – Gregory paper; **Trehub, Weiss & Cirelli chapter excerpt along with Gregory paper**

Monday – Nov. 11 – Social Functions – **Topic Presentation on Music & Politics/Protest**

Wednesday - Nov. 13 – Music Preferences

Monday - Nov. 18 – Musical Preferences – **Rentfrow & Greenberg chapter excerpt**

Wednesday – Nov. 20 – Musical Preferences – **Rentfrow & Gosling paper on music stereotypes; also Topic Presentation on Cross-Cultural Differences**

Monday - Nov. 25 – Applied Psychomusicology

Wednesday - Nov. 27 – **Thanksgiving Break – No Class**

Monday – Dec. 2 – Applied Psychomusicology; **Topic Presentation on Sonic Seasoning**

Wednesday – Dec. 4– **Proposal Due** – Applied Psychomusicology – **Topic Presentation on Music Therapy**

Monday – Dec. 9 – Applied Psychomusicology – **Topic Presentation on Music and Exercise**

Wednesday – Dec. 11 - Applied Psychomusicology