Psychology 108
Psychobiological Perspectives on the Arts   Fall 2013

Assumptions

Psychology is the science of behavior, the science of "how and why organisms do what they do." Art is, well, art. And about what art is, there is considerable disagreement. This course aims to examine the psychological processes involved in the creation, performance, and experience of art. In doing so, we will adopt the perspective of natural science, particularly that of the behavioral sciences, a perspective which assumes: natural laws govern behavior, behavior is entirely the result of genetic and environmental influences, and that there is no essential difference between mind and body. The behavioral sciences conduct experiments to test hypotheses and construct models of behavior.

This perspective may be unfamiliar, you may disagree with it, or you may embrace it. Whatever your personal view, it is the perspective that we will all adopt when engaged with this course. Similarly, we will employ its intellectual approach and methods.

Mastery of Material

Mastery of material comes through reflection, reading, discussion, and discernment. This course focuses on a series of questions to which we will return time and time again:

What makes some kinds of environmental events "art," and other kinds of events "not art?"

What are the neural and behavioral prerequisites for art? How and why did they evolve?

How are sensory and perceptual systems organized to acquire information about the organism's environment?

How is art perceived?

How are motivational and emotional systems organized to activate and direct behavior?

Why is art created?

What is the "aesthetic response?"

What contributions do cognitive systems make in the creation or experience of art?

How are motor systems organized to produce art?

What social factors influence the artistic experience?

Do individuals differ in their response to art? If so, how and why?

Answering these questions requires mastery of a body of material. As we explore them together, you will learn to think about behavior as an experimental psychologist.

These questions parallel those normally addressed for the whole of human behavior in introductory psychology courses. You may wish to consult the text used in Psychology 100: Introduction to Psychological Science for a discussion of fundamental psychological findings and theories.

This course uses behaviors commonly termed "the arts" as a means of understanding human behavior. This approach is akin to studying race cars in order to understand both race cars and automobiles—it focuses on a subset of behaviors in order to discern the features of those particular behaviors, while at the same time attending to the more general characteristics that the broader range of behaviors have in common.

Class Structure

This is not a traditional lecture course, although my in-class presentations have a prominent place in it. In addition to these presentations, class meetings will be used for a variety of exercises, demonstrations, discussions, and other activities.

In-class presentations supplement the recommended readings—the topics are varied and only loosely follow the material presented in the readings. Don't expect, therefore, that the presentations explicate the readings.

The class meetings will employ presentation software (Microsoft PowerPoint) to project text, images, and sound. Shortly after each class, the presentations will be posted on Blackboard in Adobe .pdf format. So don't spend time and effort in taking traditional notes. Rather, focus on the facts and concepts, jotting down your own ideas.

You are to teach yourself the facts about psychology and the arts, I am here to help you learn to think clearly, to think about behavior like an experimental psychologist, and to help you to learn to communicate effectively, and with style.

Recommended Readings

There are useful articles in the Readings folder on Blackboard. In addition some recommended texts for the course are:

Christian, D. *Maps of Time: an introduction to big history*. Berkeley: University of California Press, 2004.

Mithen, S. *The prehistory of the mind*. New York: Thames and Hudson, 1996.

Mithen, S. *The Singing Neanderthals: The Origins of Music, Language, Mind and Body*. London: Weidenfeld and Nicolson, 2005.

Solso, R.L. *Cognition and the visual arts*. MIT Press, 1996.

Recommended Web Sites

Some recommended web sites for the course are:

Evolutionary psychology—www.psych.ucsb.edu/research/cep/

primer.html

Fossil hominids—www.talkorigins.org/faqs/homs/

Prehistoric art—witcombe.sbc.edu/ARTHprehistoric.html

Color vision and art—webexhibits.org/colorart/

Music Cognition Resource Center—www.musiccog.ohio-state.edu/Resources/

Projects

There are three projects due during the semester, and a final project due during the examination period. The projects are varied in nature, and should provide opportunities for you to synthesize the materials you have encountered. To pass the course you must successfully complete all of these Projects.

Projects are due in the course's Blackboard Assignments section by 9:00 am on the dates indicated above; in a pinch they may also be sent via e-mail.

Project 1 (Due 30 September)

Write an essay, five or so pages in length, either defending or refuting the following quotation:

> In strict Darwinian terms, there is a selective advantage for creating art.

Support your argument with evidence drawn from the readings, class presentations, or other sources.

Project 2 (Due 4 November)

Imagine that you are the chief curator at Oberlin's Allen Memorial Art Museum. Prepare a proposal for a mini-exhibition at the museum on some aspect of the topic: "Vision and Art." The exhibition should include at least four works, at least two of which must be from the collection of the AMAM (the others may be from either the Museum's collection, or "on loan" from other institutions).

The proposal should include: a) a brief description of the particular aspect of "Vision and Art" the mini-exhibition will cover, focusing on the psychological or physiological principles to be presented; b) an image of each work selected; c) a catalog entry for each image, indicating how that image exemplifies the selected principle(s) of visual perception. Include references as appropriate.

Project 3 (Due 6 December)

Select one of the topics covered in the class presentations devoted to hearing and music, or a related issue. Write a five-page research paper discussing that topic in some depth. Include a brief bibliography.

Final Project (Due 17 December)

A final project, approximately 5 to 8 pages in length, should be on a topic of your choosing. It should examine a psychological process involved in the creation, performance, or experience of art; it should be a vehicle for you to demonstrate your mastery of facts, ideas, or approaches related to the scientific study of behavior.

Evaluation and Grades

The course is offered on a Pass/No Pass basis only. To receive credit for the course, all Projects must be completed in a timely fashion, and with some reasonable level of effort and quality.

During the week following submission of each Project I will meet with each student individually to review your work. Sign-up sheets will be made available in class and posted outside my office door (Severance 2).

Office Hours

I hold office hours Monday and Wednesday 1:30-3:00 pm, or by appointment.

Document Preparation

Because I believe that traditionally printed student work unnecessarily constrains communication, all documents for this course are to be submitted in electronic form only.

This requirement implies, of course, that some students will need to master some new techniques and some principles of graphic design. I expect all students to meet some minimum standards in these areas, and for those who already have some expertise both to help the less adept and to extend their own skills.

Instructions on how to submit documents in electronic form are given below:

Document names are to take this format:

[Name]_[Assignment].[extension]

Where:

Name—your ObieID username, generally your first initial plus your the first seven characters of your last name (e.g. scarrier)

Assignment—the assignment name, i.e.,

Project1—Project 1

Extension—the correct extension for the type of file, for example:

.doc for Microsoft Word files

Thus, the first Project should have a file name like:

scarrier_Project1.doc

Document Submission

All documents should be uploaded to the Assignments section of Blackboard for this course. To upload your file, click on "View/Complete Assignment", navigate to "Attach local file", and click "Browse". Find the file on your computer. Once you have located it, double-click or highlight and click "Open". The path to the file should appear. Click "Submit" to finish and upload the file. Alternatively, send these documents via e-mail.

Honor Code

Oberlin's Honor Code applies to all work in this course. For the Projects, you may discuss the overall assignment and your approach to it with other students, but the final product must be exclusively yours. Submission of a document effectively constitutes your signature to the Honor Pledge: "I have adhered to the Honor Code in this assignment".

Calendar

September

4	Biobehavioral perspective	
6	Creation	
9	Primate evolution	
11	Evolution and development	
13	Human evolution	
16	What is art?	
18	Origins of art	
20	Evolution of art	
23	Genetics of art	
25	Art and culture	
27	Why make art?	
30	Brain & nervous system	Due: Project 1

October

2	Physiological methods	
4	Psychophysical methods	
7	Optics	
9	Visual Processing	
11	Form	
14	Objects	
16	Eye movements	
18	Depth	
21	Fall Break	
23	Fall Break	
25	Fall Break	

October

28	Color	
30	Representation	

November

1	Video: "The Conquest of Light"	
4	Auditory Transduction	Due: Project 2
6	Auditory Physiology	
8	Frequency Analysis	
11	Pitch & Melody	
13	Loudness and Hearing Disorders	
15	Timbre	
18	Auditory Space	
20	Architectural Acoustics	
22	Motor Control	
25	Making Music	
27	Practice and Performance	
29	Thanksgiving Break	

December

2	Motivation	
4	Affective Responses	
6	Story Telling	Due: Project 3
9	Aesthetics and the Future of Art	
11	Integration of Behavior	
13	Review	