



Color & Sound

Phil 321c, Fall 2008

T, 1:05-4:00

Professor Seeley, 73/75 Campus Avenue, Rm 202

Office Hours: MTW 11-Noon & by appointment (or at lunchtime open skate at Underhill Arena)

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Course Description: Traditionally, philosophical thought about perception and consciousness has focused on vision--in particular, on color and color experience. Philosophers interested in the nature and content of experience, however, have much to learn through attention to the distinctive features of other sensory modalities and the things we perceive through them. In this seminar, we examine what colors are, what sorts of things are colored, and the relationship between colors and our experiences of them. We then investigate the nature of sounds and auditory experience, address the questions associated with developing a philosophical theory of auditory perception, and evaluate what influence answers to these questions have on more traditional, visuo-centric philosophical theories of perception.

Course Goals: The aim of this course is to 1) introduce students to some basic problems in the philosophy of perception, by 2) working through issues in the science, phenomenology, & ontology of color and sound, and 3) evaluating differences between the way we think of these two modalities.

Requirements: You will be asked to write eight short, 1 page response papers. In these papers you will identify and respond to one issue or argument from the readings for the day it is due. The average of these papers will be worth 30% of your final grade. You will also be asked to write a 6-page mid-term paper on an assigned topic worth 30% of your final grade, & a 10-12 page final paper on a topic of your choosing worth 30% of your final grade. The topics for your final papers must be cleared by me before Thanksgiving.

Attendance: *CLASS PARTICIPATION IS A REQUIREMENT* (10% of your final grade). Attendance is a minimum requirement for student participation. Therefore, excessive absence will affect a student's final grade.

Required Texts:

- David R. Hilbert (1987). *Color & Color Perception* (Stanford: Center for the Study of Language and Information) (*CCP*)
- C. L. Hardin (1988). *Color for Philosophers*, Expanded Edition (Indianapolis: Hackett) (*CFP*)
- Alex Byrne & David R. Hilbert (2001). *Readings on Color*, Volume 1 (Cambridge, MA: MIT Press). (*ROCi*)
- Readings on Lyceum. (*LYCEUM*)

SCHEDULE OF READINGS:

What follows is a provisional syllabus. I have included a number of recommended readings along with the required readings for each topic. These readings provide background material, further detail for interested students, and alternative views. They should be very helpful for constructing paper topics. Try to have a look at least some of them. I will add to these lists as the semester unfolds. It is a good idea to check back at the syllabus posted on Lyceum every week to keep track of these changes.

It is also likely that the reading schedule will change, as may the readings within it, as a result of class interest and time constraints. This is a seminar. Our discussion will be student driven. Syllabus flexibility enhances our capacity to accommodate your interests. In this regard, the reading list for the section on sounds after the mid-term is still schematic. I anticipate that it will change as your interests emerge during our discussion of colors.

Topic 1: Color Science, Phenomenology, & Ontology

Introduction

Danto Forward to Hardin (*CFP*)
Hilbert Conceptions of Color (*CCP*)

Recommended:

Byrne & Hilbert Introduction (*ROCi*)
Crane & Piantanida On seeing reddish green and yellowish blue (*LYCEUM*)
Locke *Essay II(vii)* (*LYCEUM*)
Berkeley *First Dialogue* (*LYCEUM*)

Color Science

Hardin Color Perception & Science (*CCP*)
Hilbert Metamers (*CCP*)
Kandel, Schwartz, & Jessell Color (*LYCEUM*)

Recommended:

Kandel et al Constructing the Visual Image (*LYCEUM*)
Kandel et al Visual Processing by the Retina (*LYCEUM*)

Physicalism

Armstrong Smart and the Secondary Qualities (*ROCi*)
Byrne & Hilbert Colors & Reflectances (*ROCi*)
Jackson & Pargetter An Objectivist's Guide to Subjectivism About Color (*ROCi*)

Recommended:

Smart On Some Criticisms of a Physicalist Theory of Colors (*ROCi*)

Dispositionalism

Johnston How to Speak of Colors (*ROCi*)
Postscript: Visual Experience (*ROCi*)
Boghossian & Velleman Colors as a Secondary Quality (*ROCi*)
Byrne Do Colors Look Like Dispositions? (*LYCEUM*)

Recommended:

Harman Explaining Objective Color Terms in Subjective Reactions (*ROCi*)
Averill Color and the Anthropocentric Problem (*ROCi*)

Eliminativism

Bhogossian & Velleman Physicalist Theories of Color (***ROCi***)
Hilbert Color & Science (***CCP***)
Hardin The Ontology of Color (***CFP***)

Recommended:

Hardin Phenomenology & Physiology (***CFP***)

Primitivism

Campbell A Simple View of Color (***ROCi***)
Broackes The Autonomy of Color (***ROCi***)

A Computational Account of Color

Land: Recent Advances in Retinex Theory (***LYCEUM***)
Hardin Appendix: Land's Retinex Theory of Color (***CFP***)

Topic 2: Sound Science, Phenomenology & Philosophy

Sound Science, Phenomenology, & Philosophy

Bregman Auditory Scene Analysis (***LYCEUM***)
O'Shaughnessy The Location of Sound (***LYCEUM***)
Nudds Experiencing the Production of Sound (***LYCEUM***)

What is a sound?

O'Callaghan Sounds & Events (***LYCEUM***)
Pasnau What is Sound (***LYCEUM***)

Objects or Events?

O'Callaghan Object Perception: Vision & Audition (***LYCEUM***)
Kubovy & Valkenburg Auditory & Visual Objects (***LYCEUM***)
Schubotz & Von Cramon Auditory What, Where, and When (***LYCEUM***)

Recommended:

Milner & Goodale The Visual Brain in Action (***LYCEUM***)
Mishkin et al Object Vision & Spatial Vision: Two Cortical Pathways (***LYCEUM***)

Echoes & Other Odd Sound Phenomena

O'Callaghan Sound Related Phenomena (***LYCEUM***)
O'Callaghan The Argument from Echoes (***LYCEUM***)

Who Do We Hear? Where Do We Hear It?: The Case of Recorded Sound

Walton Transparent Pictures (***LYCEUM***)
Noë Causation & Perception: The Puzzle Unraveled (***LYCEUM***)
O-Callaghan Hearing Recorded Sounds (***LYCEUM***)

Recommended:

Cohen & Meskin On the Epistemic Value of Photographs (***LYCEUM***)

ASSIGNMENTS:

1 Page Response Papers – Write a short 400-500 word response to one of the arguments presented in the readings each week. In your response you should make sure to a) identify the philosophical problem at issue, b) give a schematic account of the target argument you are responding to, and c) provide a short argument in support of your response. The purpose of these short assignments is to give you a chance to stretch your legs as philosophers. They will also help you prepare for the seminar each week and provide me with a means to evaluate your progress as the semester goes along. I have provided a topic for your first response paper due September 16.

No response paper is assigned the week the midterm is due, the week following fall break, & the week the final paper is due.

Midterm Paper - Write a 6 page paper (1800 words) on one of two topics to be announced on the distribution date for the midterm. Your paper should be double-spaced in 12 point font with 1” margins. The purpose of this paper is twofold: a) to evaluate a standard argument in the literature; and b) to demonstrate that you can synthesize the material covered in the 1st half of the semester into a coherent position.

Topics Distributed: 10/07/08

Due Date: 10/14/08

Project 6: Final Paper Write a 10-12 page (3000-3500 word) paper on a topic of your choosing. Your paper should focus on the solution of a problem (or the evaluation of a debate) that we encountered over the course of the semester. All students need to see me to discuss paper topics before Thanksgiving. I will suggest topics and related supplementary readings as we move through the syllabus.

Topic Meeting: Before Thanksgiving

Due Date: The last day of class: 12/02/08

BIBLIOGRAPHY:

Topic 1: Color Science, Phenomenology, & Ontology

- Arthur Danto (1987). "Forward," C. L. Hardin, *Color for Philosopher. Expanded Edition* (Indianapolis: Hackett Publishers), 1988, xi-xii.
- David R. Hilbert (1987). "Conceptions of Color," *Color and Color Perception: A Study in Anthropocentric Realism* (Stanford: Center for the Study of Language and Information), 1-28.
- John Locke (1690/2000) *An Essay Concerning Human Understanding*, Book II, vii, reprinted in eds. Roger Ariew & Eric Watkins, *Readings in Modern Philosophy*, v. II (Indianapolis: Hackett Publishing), 2000, 26-31.
- George Berkeley (1713) "First Dialogue," *Three Dialogues between Hylas and Philonous*, in eds. Roger Ariew & Eric Watkins, *Readings in Modern Philosophy*, v. II (Indianapolis: Hackett Publishing), 2000, 175-195.
- C. L. Hardin (1988). "Color Perception & Science," *Color for Philosopher. Expanded Edition* (Indianapolis: Hackett Publishers), 1-58.
- David R. Hilbert (1987). "Metamers," *Color and Color Perception: A Study in Anthropocentric Realism* (Stanford: Center for the Study of Language and Information), 81-100.
- Eric R. Kandel, James H. Schwartz, & Thomas M. Jessell (1996). "Color," *Essentials of Neural Science & Behavior* (New York: McGraw-Hill), 453-468.
- David M. Armstrong (1987). "Smart and the Secondary Qualities," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, v. 1 (Cambridge, MA: MIT Press), 2001, 33-46.
- Frank Jackson & Robert Pargetter (1987). "An Objectivist's Guide to Subjectivism About Color," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, v. 1 (Cambridge, MA: MIT Press), 2001, 67-80.
- Alex Byrne & David R. Hilbert (2001). "Colors & Reflectances," in Alex Byrne & David R. Hilbert, *Readings on Color*, V. 1 (Cambridge, MA: MIT Press), 263-287.
- Mark Johnston (1992). "How to Speak of Colors," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, v. 1 (Cambridge, MA: MIT Press), 2001, 137-176.
- Mark Johnston (2001). "Postscript: Visual Experience," in Alex Byrne & David R. Hilbert (2001), *Readings on Color*, V. 1 (Cambridge, MA: MIT Press), 172-176.
- Paul A. Boghossian & J. David Velleman (1989). "Colors as a Secondary Quality," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, V. 1 (Cambridge, MA: MIT Press), 2001, 81-104.
- Alex Byrne (2001). "Do Colors Look Like Dispositions?," *Philosophical Quarterly* 51, 238-45.
- Paul A. Boghossian & J. David Velleman (1991). "Physicalist Theories of Color," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, V. 1 (Cambridge, MA: MIT Press), 2001, 105-136.
- David R. Hilbert (1987). "Color & Science," *Color and Color Perception: A Study in Anthropocentric Realism* (Stanford: Center for the Study of Language and Information), 43-60.
- C. L. Hardin (1988). "The Ontology of Color," *Color for Philosopher. Expanded Edition* (Indianapolis: Hackett Publishers), 69-112.
- John Campbell (1993). "A Simple View of Color," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, V. 1 (Cambridge, MA: MIT Press), 2001, 177-190.
- Justin Broackes (1992). "The Autonomy of Color," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, Volume 1 (Cambridge, MA: MIT Press), 2001, 191-226.
- Edwin Land (1986). "Recent Advances in Retinex Theory," reprinted in Alex Byrne & David R. Hilbert (1997), *Readings on Color*, v. 2 (Cambridge, MA: MIT Press), 143-160.
- C. L. Hardin (1988). "Appendix: Land's Retinex Theory of Color," *Color for Philosopher. Expanded Edition* (Indianapolis: Hackett Publishers), 187-193.

Recommended

- Alex Byrne & David R. Hilbert (2001). "Introduction," in Alex Byrne & David R. Hilbert, *Readings on Color*, v. 1 (Cambridge, MA: MIT Press), xi-xxviii.
- Hewitt D. Crane & Thomas P. Piantanida (1983). On seeing reddish green and yellowish blue. *Science*, 221, 1078-1080.
- Eric R. Kandel, James H. Schwartz, & Thomas M. Jessell (1996). "Constructing the Visual Image," *Principles of Neural Science* (New York: McGraw-Hill), 492-506.
- Eric R. Kandel, James H. Schwartz, & Thomas M. Jessell (1996). "Visual Processing by the Retina," *Essentials of Neural Science & Behavior* (New York: McGraw-Hill), 407-423.
- J. J. C. Smart (1975). "On Some Criticisms of a Physicalist Theory of Colors," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, v. 1 (Cambridge, MA: MIT Press), 1-10.

- Gilbert Harman (1996). "Explaining Objective Color Terms in Subjective Reactions," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, v. 1 (Cambridge, MA: MIT Press), 247-262.
- Edward Wilson Averill (1985). "Color and the Anthropocentric Problem," reprinted in Alex Byrne & David R. Hilbert, *Readings on Color*, v. 1 (Cambridge, MA: MIT Press), 11-32.
- C. L. Hardin (1988). "Phenomenology & Physiology," *Color for the Philosopher. Expanded Edition* (Indianapolis: Hackett Publishers), 113-186.

Topic 2: Sound Science, Phenomenology & Philosophy

- Albert S. Bregman (1994). "The Auditory Scene," in *Auditory Scene Analysis: The Perceptual Organization of Sound* (Cambridge, MA: MIT Press), 1-46.
- Brian O'Shaughnessy (1957). "The Location of Sound," *Mind*, 66:264, 471-490.
- Matthew Nudds (2001). "Experiencing the Production of Sound," *European Journal of Philosophy*, 9:2, 210-229.
- Casey O'Callaghan (2008). "Sounds & Events," in eds. Matthew Nudds & Casey O'Callaghan, *Sounds and Perception: New Philosophical Essays* (New York: Oxford University Press).
- Robert Pasnau (1999). "What is Sound?" *The Philosophical Quarterly*, 49:196, 309-324.
- Casey O'Callaghan (2008). "Object Perception: Vision & Audition," *Philosophy Compass*, 3/4, 803-829.
- Michael Kubovy & David Van Valkenburg (2001). "Auditory & Visual Objects," *Cognition*, 80, 97-126.
- Ricarda I. Schubotz, D. Yves von Cramon, & Gabriele Lohmann (2003). "Auditory What, Where, and When: A Sensory Somatotopy in Lateral Premotor Cortex," *Neuroimage*, 20, 173-185.
- Casey O'Callaghan (2008). "Sound Related Phenomena," in *Sounds* (New York: Oxford University Press), 91-109.
- Casey O'Callaghan (2008). "The Argument from Echoes," in *Sounds* (New York: Oxford University Press), 110-125.
- Kendall L. Walton (1984). "Transparent Pictures: On the Nature of Photographic Realism," *Critical Inquiry*, 11:2, 246-277.
- Alva Noë (2003). "Causation & Perception: The Puzzle Unraveled," *Analysis*, 63:2, 93-100.
- Casey O'Callaghan (2008). "Hearing Recorded Sounds," in *Sounds* (New York: Oxford University Press), 141-162.

Recommended:

- Jonathan Cohen & Aaron Meskin, "On the Epistemic Value of Photographs," *Journal of Aesthetics and Art Criticism*, 62:2, 197-210.
- A. D. Milner & M. A. Goodale (1995). "The Visual Brain in Action," reprinted in Alva Noë & Evan Thompson, *Vision & Mind: Selected Readings in the Philosophy of Perception* (Cambridge, MA: MIT Press), 2002, 515-529.
- Mortimer Mishkin, Leslie G. Ungerleider, & Kathleen A. Macko (1983). "Object Vision & Spatial Vision: Two Cortical Pathways," reprinted in eds. William Bechtel, Pete Mandik, Jennifer Mundale, & Robert S. Stufflebeam, *Philosophy and the Neurosciences: A Reader* (Malden, MA: Blackwell Publishers), 2001, 199-208.

Date	Readings	Assignments
09/09	Danto, "Foreword to Hardin's Color for Philosophers," ix-xii (<i>CFP</i>) Hilbert, "Conceptions of Colors" 1-28 (<i>CCP & LYCEUM</i>) Locke, "Essay, II, viii" 27-31 (<i>LYCEUM</i>) Berkeley, "First Dialogue," 7-42 (<i>LYCEUM</i>)	
09/16	Hardin, "Color Perception & Science" (<i>CFP</i>) Hilbert, "Metamers," 81-100 (<i>CCP</i>) Kandel, Schwartz, & Jessell, "Color," 453-468 (<i>LYCEUM</i>) *Kandel et al, "Constructing the Visual Image," 492-506 (<i>RESERVE</i>) *Kandel et al, "Visual Processing by the Retina" 407-423 (<i>LYCEUM</i>)	1pg Response: Do facts about color science like the existence of metamers threaten anthropocentric realism?
09/23	Armstrong, "Smart and the Secondary Qualities," 33-46 (<i>ROCi</i>) Jackson & Pargetter, "Objectivist's Guide ... Color," 67-80 (<i>ROCi</i>) Byrne & Hilbert, "Colors & Reflectances," 263-287 (<i>ROCi</i>) *Smart, "On Some Criticisms of a Physicalist Theory of Colors," 1-10 (<i>ROCi</i>)	1pg Response
09/30	Johnston, "How to Speak of Colors; Postscript: Visual Experience," 137-176 (<i>ROCi</i>) Boghossian & Velleman, "Colors as a Secondary Quality," 81-104 (<i>ROCi</i>) Byrne, "Do Colors Look Like Dispositions?" (<i>LYCEUM</i>) *Harman, "Explaining Objective ... Subjective Reactions," 247-262 (<i>ROCi</i>) *Averill, "Color and the Anthropocentric Problem," 11-32 (<i>ROCi</i>)	1pg Response
10/07	Bhogossian & Velleman, "Physicalist Theories of Color," 105-137 (<i>ROCi</i>) Hilbert, "Color & Science," 43-60 (<i>CCP</i>) Hardin, "The Ontology of Color," 69-112 (<i>CFP</i>) *Hardin, "Phenomenology & Physiology," 113-154 (<i>CFP</i>)	1pg Response Midterm Paper Assigned
10/14	Campbell, "A Simple View of Color," 177-190 (<i>ROCi</i>) Broackes, "The Autonomy of Color," 191-226 (<i>ROCi</i>)	
10/21	Land, "Recent Advances in Retinex Theory," 143-160 (<i>LYCEUM</i>) Hardin, "Appendix: Land's Retinex Theory of Color," 187-193 (<i>CFP</i>)	
10/28	Bregman, "Auditory Scene Analysis," 1-45 (<i>LYCEUM</i>) O'Shaughnessy, "The Location of Sound," 471-490 (<i>LYCEUM</i>) Nudds, "Experiencing the Production of Sound," 210-229 (<i>LYCEUM</i>)	
11/04	O'Callaghan, "Sounds & Events, 1-29 (<i>LYCEUM</i>) Pasnau, "What is Sound," 309-324 (<i>LYCEUM</i>)	Midterm Paper Due: Friday November 7, 5pm
11/11	O'Callaghan, "Object Perception: Vision & Audition," 803-829 (<i>LYCEUM</i>) Kubovy & Van Valkenburg, "Auditory & Visual Objects, 97-126 (<i>LYCEUM</i>) *Schubotz & Von Cramon, "Auditory What, Where, & When," 173-185 (<i>LYCEUM</i>) *Milner & Goodale, "The Visual Brain in Action," 515-529 (<i>LYCEUM</i>) *Mishkin et al, "Object Vision & Spatial Vision," 199-298 (<i>LYCEUM</i>)	1pg Response
11/18	O' Callaghan, "Sound Related Phenomena," 91-109 (<i>LYCEUM</i>) O' Callaghan, "The Argument from Echoes," 110-140 (<i>LYCEUM</i>)	Final Paper Topics Due
12/02	Walton, "Transparent Pictures," 94-103 (<i>LYCEUM</i>) Noë, "Causation & Perception: The Puzzle Unraveled," 93-100 (<i>LYCEUM</i>) O'Callaghan, "Hearing Recorded Sounds," 141-162 (<i>LYCEUM</i>) *Cohen & Meskin, "On the Epistemic Value of Photographs," 197-210 (<i>LYCEUM</i>)	Final paper due: Friday, December 12, 5pm

* = Recommended