

Philosophy & Visual Perception

[This syllabus is for an intermediate-level seminar course offered at the University of Pennsylvania during the Fall 2021 semester.]

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Meeting time: TR 12-1:30pm

Meeting room: PWH 108

Office: COHN 403 (or Zoom)

Office hours: T 4-5 PM; R 10:30-11:30 AM & by appointment

The syllabus is subject to change based on the needs of the class. Make sure to always check the up-to-date syllabus on our course Canvas site.

1. Course Description

This course is about seeing. What does it mean to see something? What do we see, how do we see it, and why do we see it?

Visual perception is an area of contemporary research in philosophy of psychology that interacts with empirical sciences and other areas of philosophy. This course is interdisciplinary. We will draw on research in visual ecology, psychology, and neuroscience, and try to bring these different streams into dialogue with one another. We will ask how empirical results bear on the plausibility of the philosophical theories we consider and how they might guide our theory-building. The course is intended to be accessible to students with a previous course in either philosophy, psychology, visual studies, or cognitive science.

The main content of the course is divided into three sections (modules II-IV). We will start by thinking about the nature and structure of perceptual experience itself. What do we see and how do we see it? Do our perceptual states *represent* physical objects and their properties, do we see sense-data, or are we somehow directly “acquainted” with the objects and properties in our environment? Second, we will consider the perception of one particular perceptible quality: color. What, if anything, is colored? Is color a purely physical property or is it subject-dependent in some way? What is the fundamental goal of the color visual system? Third, we will ask how seeing relates to cognition and how it related to other perceptual modalities. Do our beliefs and desires influence what we see? Do other perceptual modalities affect what we see (or vice versa)? What kind of properties are presented to us in visual experience: is it just simple properties like shape, color and motion, or can we literally *see* emotions, kinds, and types of animacy?

2. Course Objectives

Through active participation in this course, you will develop an empirically-informed understanding of key contemporary issues and debates in philosophy of perception, improve you overall critical thinking skills, and practice constructing and evaluating philosophical arguments.

3. Course Structure

In-person sessions:

The standard format for the in-person sessions is lecture and discussion. There will also be occasional group work. You are expected to do the assigned readings before class, and participate actively in discussions and other in-class activities.

If the public health and safety measures due to COVID-19 require us to switch to partial or all on-line instruction, the class will meet synchronously on Zoom. In some rare circumstances, asynchronous lectures might be used.

Out-of-class activities:

You are required to take short reading quizzes on Canvas before the in-person sessions. The quizzes are open-book, and *only the ten best quiz scores count towards your grade*.

You are also encouraged (though *not* required) to use the Canvas discussion board and Perusall to share your thoughts on course content, to ask questions, to share links to relevant articles, etc. Both your in-class participation and discussion board/Perusall contributions can count towards your participation grade.

You are required to write two short papers and two drafts of a longer paper, and to conduct two peer reviews. In addition, you will complete a project in which you apply some aspect of what you have learned in this course. You are required to record a video presentation (8-10 min) of the project, which will be made available to the entire class. You are likewise required to watch all the project videos made by your classmates and leave a short constructive comment on each.

4. Assignments & Assessment

- Attendance & Participation —15%
- Reading Quizzes on Canvas —15%
- Short Paper 1 (800-1000 words) —10%
- Short Paper 2 (800-1000 words) —10%
- Perception Project — 10%
- Final Paper Draft 1 (800-1200 words) — 10%
- Final Paper Peer Reviews — 5%
- Final Paper Draft 2 (1800-2200 words) — 25%

5. Course Policies

Readings

All course readings will be posted (or linked) on Canvas. You are not required to buy any books.

Attendance

Attendance is mandatory (please be on time!), but you are allowed to miss two classes without prior notice, unless you are scheduled to conduct peer reviews on that day. If you are going to miss more than two classes (or if you are going to miss the peer review day), prior notice is required (please use the [Course Absence Report \(CAR\)](#) system to notify me of your absence from class). Depending on the circumstances, your participation grade might be negatively affected, or you might be asked to complete a make-up assignment.

Masking

Per the University's August 25 Message to the Penn Community on the Start of the Fall Semester, *masks covering the nose and mouth must be worn at all times in all public indoor spaces, including classrooms, by all persons*. Students who refuse to wear masks in the classroom will be referred to the Office of Student Conduct for disciplinary action.

Discussion Guidelines

Since this is a philosophy seminar course, there will be a lot of discussion of ideas and arguments. To make sure that these discussions remain respectful, inclusive, and constructive, here are some guidelines that we should all follow:

- Be nice. You can be critical of ideas, but remember to argue your points respectfully. Don't make fun of other discussion participants, don't use offensive examples, don't interrupt.
- Don't dominate the discussion. Raise your hand to speak. Acknowledge your fellow students' insights. Listen attentively. Think about what *you* can do to encourage others to participate.
- Ask clarificatory questions, if something doesn't make sense.
- If you feel that these guidelines haven't been appropriately followed, please let me know.

(These guidelines are based on this more extensive list that David Chalmers has put together: <http://consc.net/guidelines/>.)

Submission of Assignments

You are expected to submit all assignments on time. That said, for the paper assignments you have a *total* of eight "late days" that carry no lateness penalties. If you submit a paper two hours late, you're thereby using one late day. If you submit a paper 25 hours late, you're using two late days, etc. After the eight days are used up, penalties apply (5% per day), except in special cases. No submissions are accepted if more than seven days late, barring extenuating circumstances.

It is *your* responsibility to make sure that your assignments are properly submitted and readable. Corrupted files and other unreadable documents are treated as non-submissions. Formatting guidelines for the paper assignments will be provided.

Please take into account that writing good philosophy papers takes time and effort. You should start as soon as possible and write multiple drafts before you submit the paper. If you are struggling with an assignment, *please get in touch as soon as possible*. Philosophy is hard, but I'm happy to help.

Office Hours

You are invited and encouraged to attend weekly communal office hours. One-on-one meetings with me can also be scheduled, if there is something that you would like to discuss privately, or if you can't make my normal office hours due to a conflict.

Email

I normally respond to emails within 24 hours, though I might take longer during weekends and holidays. If you have not received a response within this time frame, feel free to prompt me with another email. Discussing substantial philosophical questions, paper ideas, or grades over email is not feasible (please come to office hours for that), but if you have questions about logistics or would like to schedule a one-on-one meeting, email away!

Laptops, Tablets, and Phones

Use of laptops and tablets in class is permitted *only for accessing assigned readings*. No phones are permitted. Empirical research suggest that the use of electronics in class reduces long-term retention and negatively impacts class performance (<https://www.tandfonline.com/doi/abs/10.1080/01443410.2018.1489046?journalCode=cedp20>), as well as distracts everybody around (<https://psycnet.apa.org/record/2014-52302-001>).

If you have a good reason for why you need to use electronics in class, please get in touch as soon as possible, and we can work something out.

Academic Dishonesty

Do not cheat. Do not plagiarize. Familiarize yourself with the University's Code of Academic Integrity (<https://catalog.upenn.edu/pennbook/code-of-academic-integrity/>), and if in doubt, ask. Note that violations of the code will be reported to the relevant disciplinary authorities.

Accommodations

Students who require special accommodations are encouraged to contact Student Disabilities Services (<https://wlrc.vpul.upenn.edu/sds/>). If you have any access needs that you think I should know about, please get in touch as soon as possible.

Religious and Secular Holidays

Accommodations can be made for students observing religious and secular holidays. You should inform me within the first two weeks of the course of your intent to observe such holidays so that appropriate arrangements can be made. You can review the University Policy on Secular and Religious Holidays here: <https://catalog.upenn.edu/pennbook/secular-religious-holidays/>

6. Resources

Penn Resources

- **Counseling & Psychological Services (CAPS):** <https://caps.wellness.upenn.edu>
- **Wellness at Penn:** <https://wellness.upenn.edu>
- **Weingarten Learning Resources:** <https://wlr.vpul.upenn.edu/lr/>
- **Tutoring Center:** <https://wlr.vpul.upenn.edu/tutoring/>
- **Writing Center:** <http://writing.upenn.edu/critical/wc/>

Philosophy Resources

- Stanford Encyclopedia of Philosophy: <https://plato.stanford.edu/entries/plato/>
- Critical Thinking Web: <https://philosophy.hku.hk/think/critical/ct.php>
- PhilPapers (a comprehensive index and bibliography of philosophy): <https://philpapers.org>
- Existential Comics: <http://existentialcomics.com>

Films That Might Make You Think More About Visual Perception

- *Stalker* (1979)
- *Hero* (2002)
- *Tree of Life* (2011)
- *Samsara* (2011)
- *I Am Belfast* (2015)

7. Class & Readings Schedule

Note on terminology:

- **“Required”** readings are the ones you are expected to read and engage with *before* the relevant in-class session, and the *only* ones you will be quizzed on. Normally you’re required to read one paper or book chapter or a collection of shorter excerpts per session.
- **“Recommended”** readings/podcasts/videos will give you a fuller understanding of the topic under discussion. They will likely be useful to you when writing papers. Some ideas in the recommended readings might also be discussed during in-class sessions.
- **“Optional”** readings/podcasts/videos are extra materials for when you are particularly interested in a topic.

Module I: Getting Started

In the first module, we'll cover some basics. We'll talk about what philosophy is and how it differs (if it does) from the sciences. Since philosophical writing is usually argumentative writing, we'll spend some time thinking about arguments. What are they? How can we spot them? What makes them good? Next we'll zoom in on philosophy of perception, and think about how it relates to other areas of philosophy, and what kinds of questions philosophers of perception usually ask. Finally, we'll think about how vision works, from the point of view of neuroscience and psychology. What happens when the light reflected from object surfaces hits the eye? Where does the information travel in the brain and how is it processed?

- 8/31 (1) Syllabus and Logistics. What is philosophy? *PHILSKILLS: What is an argument*
- *Recommended:* Pryor, "Guidelines on Reading Philosophy"
 - *Recommended:* Purugganan & Hewitt, "How to Read a Scientific Article"
- 9/2 (2) Contemporary Philosophy of Perception; Science of Vision, *PHILSKILLS: How to Read Philosophy*
- *Required:* Wolfe et al. (2015), *Sensation & Perception*, Ch. 2: The First Steps in Vision
 - *Recommended:* Nanay (2010), "Philosophy of Perception: The New Wave" in *Perceiving the World*
 - *Optional:* Gregory, *Eye and Brain*, Ch. 3: Eye
- 9/7 (3) Science of Vision (Group Work in Class)
- *Required:* Wolfe et al. (2015), *Sensation & Perception*, Ch. 3: Spatial Vision: From Spots to Stripes (pp. 53-55, 64-85)
 - *Recommended:* Watch *Vision: Crash Course* on YouTube
 - *Optional:* Gregory, *Eye and Brain*, Ch. 4: Brain

Module II: The Nature and Structure of Perceptual Experience

We normally think that we can just see—that we are in direct, unmediated contact with ordinary objects and their mind-independent properties. The arguments from illusion and hallucination challenge this ordinary understanding of perception. When we hallucinate, we aren't aware of any ordinary object at all and when we have an illusory experience, we see an ordinary object, but not as it really is. So how exactly does visual perception work? Do we see sense-data instead of external objects, do our perceptual states represent (and sometimes misrepresent) external objects and their properties, or is perception constituted in terms of a relation of ordinary objects to perceivers and perhaps perceptual circumstances?

- 9/9 (4) The Problem of Perception (**Quiz 1**)
- *Required:* Fish (2010), *Philosophy of Perception*, Ch. 1: Introduction: Three key principles
 - *Optional:* Crane & French (2021), "The Problem of Perception" *Stanford Encyclopedia of Philosophy*

- 9/14 (5) Russell's Representative Realism and Sense-Data ([Quiz 2](#))
- **Required:** Russell (1912), *Problems of Philosophy*, Chs. 1-2 (pp. 1-10)
 - **Required:** Dignāga, *Investigation of the Percept* (Ālambana-parīkṣā)
 - **Recommended:** Hume (1758/1999), *An Enquiry Concerning Human Understanding*, Sect. XII, Part 1: 118
 - **Optional:** Fish (2010), *Philosophy of Perception*, Ch. 2: Sense datum views (Access through Franklin)
- 9/16 (6) Tye's Representationalism & Transparency, *PHILSKILLS: How to Talk Philosophy*
- **Required:** Tye (2002), "Representationalism and the Transparency of Experience," *Noûs*
 - **Optional:** Fish (2010), *Philosophy of Perception*, Ch. 5: Intentional theories (Access through Franklin)
- 9/21 (7) Brewer's Object View (Naïve Realism) ([Quiz 3](#)); *Paper 1 Topics Distributed*
- **Required:** Brewer (2006), "Perception and Its Objects," *Philosophical Studies*
 - **Optional:** Byrne's (2021) Review of Brewer's (2011) Book
 - **Optional:** Fish (2010), *Philosophy of Perception*, Ch. 6: Disjunctive theories (Access through Franklin)
- 9/23 (8) Review & Discussion, *PHILSKILLS: How to write a philosophy paper*
- **Required:** Pryor, "Guidelines on Writing a Philosophy Paper"

Module III: Science & Philosophy of Color

Color is an extremely salient feature of visual scenes for many animals, but what kind of property is it — is it an intrinsic property of external objects, an illusion created by our brain, or some sort of a relation between objects and perceivers? If colors are real, then when are our color perceptions successful — is it when they match some property present in the object or are the success standards more directly utility-based? Finally, what is the best way to approach these metaphysical and epistemological questions about color — should we start with the so-called common-sense conception of color or should we start with what the relevant empirical sciences have to say?

- 9/28 (9) Why is color so difficult? ([Quiz 4](#))
- **Required:** Chirimuuta (2015), *Outside Color*, Ch. 1: Color and Its Questions (pp. 1-14)
- 9/30 (10) The Science of Color Vision (Group Work in class)
- **Required:** Wolfe et al. (2015), *Sensation & Perception*, Ch. 5: The Perception of Color (excerpts)
 - **Recommended:** Watch *How We See Color* on YouTube
- Paper 1 Due 9/30 11:59 PM*
- 10/5 (11) Introduction to Color Metaphysics ([Quiz 5](#)); *Class Visit to the Penn Materials Library*
- **Required:** Logue (2016), "Metaphysics of Color 1: Physicalist Theories of Color," *Philosophy Compass* (pp. 211-213)
 - **Required:** Logue (2016) "Metaphysics of Color 2: Non-Physicalist Theories of Color," *Philosophy Compass* (pp. 220-221, 224-227)

- 10/7 (12) Reductive Physicalism (Quiz 6)
- **Required:** Byrne & Hilbert (2003), "Color realism and color science," *BBS* (sections 3-4, pp. 7-18)
 - **Recommended:** Logue (2016), "Metaphysics of Color 1: Physicalist Theories of Color" (pp. 213-216)
- 10/12 (13) Traditional Dispositionalism (Quiz 7)
- **Required:** Levin (2000), "Dispositional theories of Color and the Claims of Common Sense," *Philosophical Studies*
 - **Recommended:** Locke, *An Essay Concerning Human Understanding*, Book II, Chapter 8: 9-15, 22-26
 - **Recommended:** Byrne & Hilbert (2003), Section 2.2
 - **Recommended:** Logue (2016) "Metaphysics of Color 2: Non-Physicalist Theories of Color" (pp. 220-224)
- (October 14-17 Fall Term Break)
- 10/19 (14) Visual Ecology (Group Work in class)
- **Required:** Gerl and Morris (2008), "The Causes and Consequences of Color Vision," *Evolution: Education and Outreach*
 - **Recommended:** Watch *How Animals and People See the World Differently* | *National Geographic* on YouTube
 - **Optional:** Watch *Life in Colour with David Attenborough* on NETFLIX (Ep. 1 & 2)
- 10/21 (15) The Function of Color Vision: Detection vs. Discrimination (Quiz 8)
- **Required:** Hatfield (1992), "Color Perception and Neural Encoding: Does Metameric Matching Entail a Loss of Information?" *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association*, read until Section 4
 - **Recommended:** The rest of Hatfield (1992)
- 10/26 (16) The Function of Color Vision: Perceptual Enhancement (Quiz 9); Paper 2 Topics Distributed
- **Required:** Akins & Hahn (2014), "Color Perception" in *The Oxford Handbook of Philosophy of Perception*, Sections 5-7 (pp. 431-440)
 - **Recommended:** Akins & Hahn (2014), Sections 1-4
 - **Optional:** Listen to *New Books in Philosophy/ Chirimuuta: Outside Color* (podcast)
- 10/28 (17) Ecological Relationalism (Quiz 10)
- **Required:** Thompson (1995), "Colour Vision, Evolution, and Perceptual Content," *Synthese* (pp. 1-11, 22-27)
 - **Recommended:** Thompson (1995). *Colour Vision: A study in Cognitive Science and the Philosophy of Perception* (excerpt, 3 pages)
 - **Recommended:** Byrne & Hilbert (2003), section 2.5

Module IV: Perception & Cognition

In this section, we'll think about how visual perception relates to other perceptual modalities, and how it relates to cognition. Do our beliefs, desires, and other cognitive states affect what we see or is visual perception cognitively impenetrable? Do other sensory modalities affect what we see or is visual perception informationally encapsulated? Do visual experiences sometimes represent complex properties like kind memberships or animacy?

- 11/2 (18) Fodor's Modularity ([Quiz 11](#))
- **Required:** Fodor (1985): "Précis of the Modularity of Mind," *BBS*
 - **Optional:** Pylyshyn (1999), "Is vision continuous with cognition: The case for cognitive impenetrability of visual perception," *BBS*
- 11/4 (19) Modularity, Integration, Cognitive Penetration ([Quiz 12](#)), *Class Visit to the Institute of Contemporary Art (ICA)*
- **Required:** Burnston & Cohen (2015), "Perceptual Integration, Modularity, and Cognitive Penetration" in *The Cognitive Penetrability of Perception: New Philosophical Perspectives*
- Paper 2 Due 11/4 11:59 PM*
- 11/9 (20) Experimental Evidence for Cognitive Penetration (Group Work in class)
- **Required:** Banerjee, Chatterjee & Sinha (2012), "Is it light or dark? Recalling moral behavior changes perception of brightness," *Psychological Science*
 - **Required:** Levin & Banaji (2006), "Distortions in the perceived lightness of faces: The role of race categories," *Journal of Experimental Psychology: General*
 - **Required:** Hansen et al. (2006) "Memory modulates color appearance," *Nature Neuroscience*
- 11/11 (21) Evaluating the Evidence ([Quiz 13](#)); *Final Paper Topics Distributed*
- **Required:** Firestone & Scholl (2016), "Cognition does not affect perception: Evaluating the evidence for "top-down" effects," *BBS* (pp. 1-19)
 - **Recommended:** Re-visit papers from last time
- 11/16 (22) Contents of Visual Experience, Siegel on K-Properties ([Quiz 14](#))
- **Required:** Siegel (2011), "Kinds" in *The Contents of Visual Experience*
 - **Recommended:** [Tye \(1995\)](#), *Ten Problems of Consciousness*, pp. 100-105 (section 4.2)
- Projects Due 11/16 11:59 PM*
- 11/18 (23) Thin vs. Rich Contents: The Debate ([Quiz 15](#))
- **Required:** Siegel & Byrne (2017), "Rich or Thin?" in *Current Controversies in Philosophy of Perception*
- 11/23 (24) Experimental Evidence for Rich Content
- **Required:** Gao et al. (2009), "The psychophysics of chasing: A case study in the perception of animacy," *Cognitive Psychology*
 - **Recommended:** Yale Perception & Cognition Lab Demos: <http://perception.yale.edu>

Module V: Wrapping Up

This last section of the course is dedicated to drawing connections between the different topics we've covered, to consolidating our knowledge, and to honing our philosophy skills. We'll start with a writing workshop and experiment with strategies for improving the exposition, argumentation, and philosophical engagement in paper assignments. We'll also view all the project videos and discuss them on Canvas. Then our guest speaker, Sam Clarke, will zoom in on some of the intricacies involved in the discussions of modularity and cognitive penetration. After this we'll have a peer review session: you'll provide feedback on two of your peers' final paper drafts and they'll do the same for you. We'll end with one last discussion of what we have learned and what new questions have arisen.

11/30 (26) Final Paper Writing Workshop

- **Required:** Watch all the project presentations on Canvas, leave a short (constructive!) comment or question on each.

Final Paper Draft 1 Due 11/30 11:59 PM

12/2 (25) Guest Speaker: Sam Clarke

- *Recommended:* Clarke (2020), "Cognitive penetration and informational encapsulation: Have we been failing the module?" *Philosophical Studies*

Final Paper Peer Reviews Due 12/3 11:59 PM

12/7 (27) Final Paper Peer Reviews in Class

- *Recommended:* Read the reviews of your paper draft beforehand

12/9 (28) Final Review & Discussion

Final Paper Draft 2 Due 12/15 11:59 PM