Social Perception
PBS 53
Winter 2013
MWF 10:00-11:05, x-period: Thursday 12:00-12:50
Moore Hall 110

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In a fleeting glance, we can identify a person, infer their emotional state, determine their gender, estimate their age, assess their attractiveness, and surmise the focus of their thoughts. Social perception is fundamental to social interaction in humans as well as other animals. This course will examine social perception in humans and other species and in doing so will touch on issues including functional specialization, neurocognitive development, and evolution. Faces have received much of the attention in social perception and we'll spend significant time on face perception, but we'll also cover body perception, biological motion perception, voice perception, and some of the various types of social perception in non-human animals. We will draw on a range of approaches including psychophysics, neuropsychology, single-cell recording, transcranial magnetic stimulation, fMRI, and twin studies.

You will be responsible for learning material presented in lectures, topic presentations by your classmates, and the readings. In most classes, I will provide a 35/40-minute lecture and then we'll also have a topic presentation or an experimental discussion in groups. For topic presentations, a group of three students will give a 20/25-minute presentation on one of the 12 topics provided below. For group experimental discussions, you'll break into groups of five to discuss potential experiments to investigate a topic. Each group will then discuss their experimental idea(s) with the class.

<u>Marking scheme</u>
Brief papers 10%
Topic presentation 10%
Mini-Test 5% --
Mid-term exam 20% --
Final exam 30% -- Monday March 11, 3pm
Paper 25% -- , 11pm

Brief papers (10%): Each week you will write a brief (200-300 words) thought paper on the readings. You could focus on one issue that you found interesting, further experiments inspired by the readings, a substantial weakness that you believe undermines the conclusions, etc. These papers should not be summaries of a reading. Please email Hua and me each week's brief paper by 4pm Thursday. I would prefer to receive them earlier in the week though, because I will sometimes discuss or elaborate on issues raised in them in class.

Topic presentations (10%): Oral/visual presentation skills are likely to be valuable for you regardless of what you do after Dartmouth, and most students don't get to practice them enough. Topic presentations will be carried out by groups of three people on one of the topics listed below. These presentations should cover the research question addressed, background literature, experimental logic, method, results, and implications. I will do a presentation the first week to give you a model, but feel free to improvise. I encourage you to keep your introduction and discussion fairly simple; boil it down to an issue or two. Make sure that the methods and results are understandable, because if they aren't, the audience won't learn much (and will ask you lots of questions!).

We'll have a projector so you can present Powerpoint slides, sample tasks, video clips, etc. Leave time at the end for questions and discussion. If you prefer to present a different paper on one of your assigned topics, please check with me first. I'd recommend getting to know your presentation well beforehand. Remember that you'll be responsible for understanding material presented in other group's topic presentations so you should pay close attention, ask questions, and read the paper if necessary.

Mini-Test (5%): To familiarize you with the format used for the midterm and final, on January 24 we'll have a short test on the material covered in the first two weeks. It will consist of four multiple-choice questions and a short answer question. Immediately after the test, we'll discuss each question.

Exams: The midterm exam will be a mix of multiple-choice and short answer questions from the lectures (roughly 40%), topic presentations (20%), and the readings (roughly 40%) from the first five weeks of term. The final exam will be a mix of multiple-choice, short answer, and short essay questions. It will cover material from the entire term, with an emphasis on the final half of the term (roughly 2/3).

Once the exam starts, you are not allowed to leave the room, so visit the bathroom, get a drink, etc. beforehand.

Paper (25%): You will need to become familiar with the literature pertaining to an issue in social perception, identify an outstanding research question, and design an experiment that addresses this question. I'll be happy to meet with you as you attempt to decide on an issue to focus on. Because you won't be able to carry out your experiments, the sky is the limit. If you know enough about fMRI, genetics, ERP, or other techniques to involve them in your project, go for it.

Your paper should consist of an introduction, methods, and a hypothetical results section. It will NOT include a discussion section because you won't have results to discuss. If your experiments involve imaging, you don't need to specify the nitty-gritty of the scanning protocol and the data analysis (Scanner details; TR; flip angle; etc), but you should be as precise as possible. In your results section, you should discuss potential outcomes and mention their implications. You'll probably find it useful to present figures with possible results (for an example, see Figure 2 in Yovel & Duchaine (2006) Journal of Cognitive Neuroscience, which is available in the Blackboard folder).

If you're taking the course to satisfy a neuroscience requirement, your final paper must be neuroscience-focused but I see that as a broad topic which includes neuropsychology, adaptation experiments, and other purely behavioral measures that allow inferences about neural issues.

Please email me your paper by 11pm on March 7 as a Word or Pages file (or equivalent) using 1.5 line spacing, 12 pt font, and 1 inch margins. It should be seven pages of text maximum, not including figures, tables, and references. Use APA style for citations and references. Insert your figures and tables into the text, but insert them after you're done writing so you can check the paper's length.

Schedule: Below is the tentative schedule. It is subject to revision. Note the X-period meetings.

Week 1

Jan 7: Intro to social perception

Jan 9: Face-specificity: cognitive/neuropsychological evidence (Presentations / Pubmed)

Jan 11: Face-specificity: cognitive & neuropsychological evidence (Presentation BCD: Sadeh)

Week 2

Jan 14: Face-specificity: Neural evidence (Groups: Neuropsychological experiments)

Jan 16: Face-specificity: Neural evidence (Presentation: Gaze contingent paradigm)

Jan 18: Eye gaze perception (Presentation: Age and face memory)

Week 3:

Jan 21: MLK day – NO CLASS

Jan 23: Eye gaze perception (Groups: Future human imaging experiments)

X---------Jan 24: Face shape coding + **Mini-Test**

Jan 25: Tirta Susilo – Facial trait judgments (Presentation: Spatial heterogeneity)

Week 4

Jan 28: Monkey face processing (Groups: Future trait judgment experiments)

Jan 30: Monkey face processing (Presentation: Functional roots of fear/disgust)

Feb 1: Monkey face processing (Presentation: Oxytocin)

Week 5:

Feb 4: Human fMRI (Group: Future monkey experiments)

Feb 6: Acquired prosopagnosia (Presentation: DP face training)

X---------Feb 7: Acquired prosopagnosia (Presentation: Affective blindsight)

Feb 8: Carnival – NO CLASS

Week 6

Feb 11: Review (Presentation: Other race malleability)

Feb 13: **Midterm** (covering material from Week 1-5)

Feb 15: Return tests; TMS studies of face perception

Week 7

Feb 18: Developmental prosopagnosia (Groups: Future TMS)

Feb 20: Developmental prosopagnosia (Groups: Future DP studies)

Feb 22: Development of face perception (Kirsten Dalrymple)

Week 8

Feb 25: Genetic basis of face perception (Presentation: Innateness of pride/shame)

Feb 27: Facial expressions (Groups: Developmental studies)

Mar 1: Voice perception (Presentation: Sexual orientation + attention)

Week 9

Mar 4: Biological motion (Groups: Future voice studies)

Mar 6: Tirta Susilo - Body perception (Presentation: Infant biomotion perception)

Mar 8: Non-human social perception (Presentation: Bodies capture attention)

Monday, March 11 at 3:00 FINAL

Readings

Week 1: Nakayama chapter, Duchaine & Yovel chapter, McKone in press chapter
Week 2: Freiwald chapter, Haxby chapter, Calder 2008
Week 3: Rhodes chapter, Todorov chapter
Week 4: Freiwald chapter, Crouzet 2010
Week 5: Kanwisher/Barton chapter, Eimer N170 chapter
Week 6: Penton-Voak chapter, Pitcher TMS chapter
Week 7: Duchaine DP chapter, McKone chapter 2009, Pascalis chapter
Week 8: Belin 2011, Wilmer 2010, Naked Face
Week 9: Troje chapter, Peelen 2007

Presentation topics

--Gaze contingent paradigm for face holistic processing –Van Belle et al (2010) Neuropsychologia
--Age and face memory – Germine et al (2011) Cognition
--Spatial heterogeneity in face and form perception – Afraz et al (2009) Current Biology
--Functional roots of fear and disgust facial expressions – Susskind et al (2008) Nature Neuroscience
--Oxytocin & human face processing - Rimmelle et al (2009) J Neurosci; Guastello et al (2008) Biol Psychiatry
--DP face training – DeGutis et al (2007) J of Cognitive Neurosci
--Affective blindsight – Pegna et al (2005) Nature Neuroscience
--Malleability of other race face effect – Chiao et al (2006) Psych Science
--Innateness of pride and shame displays – Tracy et al (2006) PNAS
--Sexual orientation & the effect of naked bodies on attention – Jiang et al (2006) PNAS
--Infant biomotion perception – Simion et al (2008) PNAS
--Bodies capture attention – Downing et al (2004) Cognition

Honor Code: Students in PSYC 53 are expected to strictly adhere to the Dartmouth Academic Honor Principle. As described in the Student Handbook, fundamental to the principle of independent learning is the requirement of honesty and integrity in the performance of academic assignments, both in the classroom and outside. Dartmouth operates on the principle of academic honor. Students who submit work that is not their own or who commit other acts of academic dishonesty will forfeit the opportunity to continue at Dartmouth. If you have questions or concerns regarding this policy during the course, please contact Professor Duchaine.

Lateness: All papers and presentations are due at the date and time specified. Late papers, without an official documented College excuse (health or family emergency), will be accepted but penalized. No extensions will be granted due to computer failure, roommate difficulties, printing problems, etc. Scores will be reduced by 10% for every 24-hour period a paper is late. According to College policy, there are no excused absences from class for participation in College-sponsored extracurricular activities.

Disabilities: Any student with a documented disability needing academic adjustments or accommodations is requested to speak with me by the end of the second week of the term (April 6). All

discussions will remain confidential, although the Academic Skills Center may be consulted to verify the documentation of the disability.

Religious observances: Some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance which conflicts with your participation in the course, please meet with me before the end of the second week of the term to discuss appropriate accommodations.