Information High-Level Vision

Psychology 312, Fall 2000 MW 6:30PM-7:50PM, TLC 100

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CLASS URL: http://www.skidmore.edu/~flip/campus-only-classes/HLV/

DESCRIPTION: Welcome to my little world of speciality, allow me to share the fun filled world of human vision and cognition with you. Man, what a weak opening sentence... Anyway– In this little pow-wow we'll be looking at perhaps the most extensively studied part of the human mind/brain: Vision. There's a whole bunch of processes involved with vision, the physics of light, the optics of the eye and world, the transduction of light into neural impulses, the visual representations that we possess, &c, up to the point where we can identify or otherwise react to something we 'see'. We'll survey the later end of this process, sometimes known as high-level vision (the messy biological stuff being known as, of course, low-level vision). Highlevel vision is the process in which we make sense of what it is that is presented to our tiny little visual receptors. Even though it might seem like we know an awful lot about vision it turns out that we only have the tip of the iceberg defrosted. Think about this for a minute- Where are those robots they promised me at the 1965 world's fair that would do the house cleaning and help me with my homework? Why do you think that they don't exist- that's right, largely they lack adequate vision. Some time when you're feeling malicious go to an automobile plant and throw something at one of the robots and ask it to catch it. You think it can? Why not?

> So, in this particular learning festival we'll examine what we do know about how we make sense of things once they've gotten past the messy biological part of the brain. How do we reconstruct the world in our head from the rather piddly amount of information that we can get in there? Is there already stuff in there to help us do this or do we learn it all? These and other mysteries will be dissected and debated in our very classroom!

Textbooks: Palmer, Vision Science

Willats, Art and Representation

Miscellaneous readings.

We're going to mainly work our way through the Willats book with references back to the Palmer. The Palmer book is the de-facto standard in vision right now, so it is a good 'keeper' if you're into that thing.

ATTENDANCE: This is a seminar. Therefore I expect for you to a) show up and b) contribute. I have no attendance policy per se but I'd really like it if you would show up. However, I reserve the right to arbitrarily adjust your grade if you stop showing up... Take a look at the grading structure below for more detail.

Exams: There are no exams in this class.

Papers / Projects: You'll have one healthy-sized paper or project due at some point in the second half of the semester. You'll get more specific information about it in the upcoming weeks.

PRESENTATIONS: Here's the fun part. Each week, one or two of you will be responsible for presenting the reading for that week. Nothing formal, no overheads necessary, dress down, &c. However, I'm looking at how you'll be able to communicate the information and inspire some discussion. I want the discussions to be critical as well as informative, what is good about the positions presented? What is bad? Can you think of ways to verify / correct / replicate / overturn any of it? Think about it...

To help facilitate this I'll want you to prepare a 1 page 'reaction' to each weeks readings that needs to be e-mailed to me by high-noon (that's 12PM or 'wake up time' for some of y'all) on the day of class. I have zero tolerance for lateness and tend to become quite cranky when someone asks for an extension for this sort of thing. For goodness sake, it's only one page! Suck it up and read the stuff...

Grading: Your grade will be determined as follows:

Paper 33.3%

Class Participation

(including short reviews) 66.4%

If for some reason you have decided to take this class Pass / Fail the acceptable 'Passing' level of work is that of a typical 'B' for this class.

LATE WORK: Work that is presented to me late without prior notice will receive a 0. If something is going to be late get in touch with me. I fully reserve the right to give late work whatever penalty I feel is appropriate.

EXTRA CREDIT: There is no real way to get extra credit in this class. However, a wholly general solution for the high–level vision problem will be worth a one–half letter–grade increase.

Honor Code: The "Skidmore Honor Code" is in your student handbook. Learn it, know it, live it. Cheating, copying, borrowing, forging, or otherwise representing something as being yours that isn't will result in *extreme* sadness on your part. Psychology is a highly collaborative field, I encourage you to talk to your fellow students about the projects and assignments, compare notes, exchange information and insights. But don't 'team write' the reports. See the lab syllabus/information sheet for further useful tips. Also, some of us professor types plant papers on the so-called 'information exchange' web sites (Who exactly is fooling who here?). Turning one of those in would be quite embarrassing, wouldn't it? Just don't do it.

Other Details: I strongly encourage you to use my e-mail to contact me since I am available electronically almost all day long. Yes, I am a serious geek. Alternately, my office phone has that high-tech voice-mail so you can always leave a message but the little red light tends to scare me so I'm not as likely to get back to you as quickly as I would if you contacted me electronically. The web site will have current information also. I also recommend that you stop by the office as I can usually be found there, well outside my posted office hours and on weekends. Really – I love your smiling face (insert your name here), and I'm happy to discuss anything that you have a need to.

DISCLAIMER: This document is subject to change. Changes will be distributed with sufficient notice in class and/or via the class' web site.