

## **Symbolic Systems 210**

### ***Learning Facial Emotions: Art and Psychology***

**Spring Quarter, 2007-2008  
Stanford University, 3 units**

**Instructors:**

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Pamela Davis Kivelson, Artist-in-Residence, [pdk@stanford.edu](mailto:pdk@stanford.edu)

**Teaching Assistants:**

Kacey Ballard, Psych Grad TA, [kballard@stanford.edu](mailto:kballard@stanford.edu)

Michael Huang, Visual Arts TA, [mikhuang@gmail.com](mailto:mikhuang@gmail.com)

**Art Model:**

Megan Ballog, [meghanballog@gmail.com](mailto:meghanballog@gmail.com)

Class meets: Tues/Thurs, 11:00-12:15, Wallenberg Hall, Room 317

Course prerequisites. Psych1 or consent

Class size: limited to 15 students because of the studio component.

### **Course Description**

The focus of this seminar course is a quantification of the differences between an art and psychology approach to cognitive tasks related to facial emotions. Particular attention is given to the tasks of learning to recognize, feel, and respond to facial emotions between two people. Dimensions of analysis include cognitive modeling and neuroscience. Learning through drawing is probably most advantageous for cognitive deficits related to autism, aging, and culture.

A psychology approach to learning facial emotions is training by being told the facial features that define different emotions, being shown examples of particular emotions, and being given feedback on performance. Paul Ekman's Micro Expression Training Tool (METT) and Subtle Expression Training Tool (SETT) learning methods, described at [www.paulekman.com](http://www.paulekman.com), are excellent paradigmatic examples of this approach, and will be used in this course.

An artistic approach to learning facial emotions involves the immersive experience of one-on-one drawing of live subjects. The Draw the Feeling approach, developed by Pamela Davis Kivelson and described at [www.drawthefeeling.org](http://www.drawthefeeling.org), is an excellent paradigmatic example of an artistic drawing approach, and will be used in this course. Students will draw live subjects using this method. Prior art experience is not required.

The general topic of this course has not been previously studied, thus offering the opportunity for students to engage in original research. The course will provide first-hand experience with the art drawing and psychology approaches. This provides the students with the opportunity to formulate how different quantitative research methodologies can be used to measure the relative effectiveness of an art drawing versus psychology approach.

# 1. Class Particulars

## Office Hours

David Wilkins, 101 Cordura Hall, Thursdays 1:30-3:30, and by appointment  
Pamela Davis Kivelson, 317 Wallenberg Hall, Tues/Thurs 12:15-1:00, and by appt.  
Kacey Ballard, 478 Jordon Hall, Monday 3:15-5:15 and by appointment

## Coursework

This course will use Coursework, Sp08-SYMBSYS-210-01.

## Course Material

Textbook: Paul Ekman, *Emotions Revealed*, 2<sup>nd</sup> edition, Henry Holt and Co., 2007.  
The book is available in the Stanford bookstore on campus for \$15.00.

The weekly readings are journal articles, available in PDF form on Coursework.  
All readings will be made available two weeks in advance.

The following art supplies are needed:  
1000h pad 8/12/11, drawing pad 8 1/2x11, Sign pen black, tombo brush pen black  
4b charcoal pencil, 2b pencil, 5mm Mech pencil, china marker black  
gray scale, kneaded eraser large, newsprint pad 9x12, drawing board 13x17

A **SymSys Art Kit** that contains all of the above art items is available from Accent Arts,  
located at 392 California Ave, (650) 424-1044, 10-7pm. Ask for the SymSys Art Kit.  
List Price \$52.02 Kit Price \$36.41 plus \$3.01 tax, Total \$39.42  
Optional Pencil sharpener \$1.75- \$9.95

## Homeworks

The lecture-related homework is a one-page critique of the readings for the coming week.  
A critique provides a summary of strengths, weaknesses, and observations of the reading.  
Any lab-related homeworks will be announced in conjunction with the labs.

They are to be emailed by Monday at noontime on the week the readings are covered.  
Please email a PDF of the homework to [dwilkins@stanford.edu](mailto:dwilkins@stanford.edu) & [kballard@stanford.edu](mailto:kballard@stanford.edu)

## Grading

40% Term Paper and Presentation, 40% Homework, 20% Lecture and Lab participation

## Library Reserve

Relevant books will be on reserve at the Meir library reserve desk.  
This includes the METT/SETT training CD that will be available for two-hour checkout.

## Literature Searches

The main psychology source relevant to the course is psychINFO.  
To access it, go to <http://library.stanford.edu/sulapp/databases/index.jsp>  
Select psychology, and then select psychINFO  
Another good source is [www.pubMED.net](http://www.pubMED.net).

## Homework Readings

Note: a critique of these readings is due each Monday, at noontime, via email to [dwilkins@stanford.edu](mailto:dwilkins@stanford.edu) and [kballard@stanford.edu](mailto:kballard@stanford.edu). Please use PDF format.  
Please produce one critique per reading.

Week 1: Russell T. A., Chu E, and Phillips M. L., A pilot study to investigate the effectiveness of emotion recognition remediation in schizophrenia using the micro-expression training tool. *British J. of Clinical Psychology*, Nov 2006; 45(Pt 4):579-83

Week 2: Ekman, P., *Emotions Revealed*, 2<sup>nd</sup> edition, Henry Holt and Company, 2007, Chapter 1, Chapter 5, Chapter 10, and the Appendix on Reading Faces.

Week 3: Niedenthal, P. M., Embodying Emotion, *Science*, Vol 316, 1002-1005, 2007.

Week 3: Neumann, 2007, Neumann, D., Spezio, M. L., Piven, J. and Adolphs, R. Looking you in the mouth: abnormal gaze in autism resulting from impaired top-down modulation of visual attention, *SCAN*, Vol 1, 194-202, 2006.

Week 4: Wright, A., Shinkle, E. and Linney, A. Alter Ego: Computer Reflections of Human Emotions, *Proceedings of the 6th. DAC Conference*, Copenhagen, 191-199, 2005.

Week 6: Matsumoto. D. and Willingham, B. The Thrill of Victory and the Agony of Defeat: Spontaneous Expressions of Medal Winners of the 2004 Athens Olympic Games, *Journal of Personality and Social Psychology*, Vol. 91, No. 3, 568–581, 2006.

Week 6: Calder, A. J., Keane J., Manly, T., Sprengelmeyer, R., Scott, S., Nimmo-Smith, I., Young, A. W. Facial expression recognition across the adult life span. *Neuropsychologia*, Vol 41 195–202, 2003.

Week 7: Klin, A., Jones, W., Schultz, R., Cohen, D. Visual Fixation Patterns During Social Situations as Predictors Individuals With Autism *Archives of General Psychiatry*. Volume 59, 806-816, 2002.

Week 7: Dalton, K. M., Nacewicz, B. M., Johnstone, T. Schaefer, H. S., Gernsbacher, M. A. Goldsmith, H. H., Alexander, A. L., and Davidson, R. J. Gaze fixation and the neural circuitry of face processing in autism. *Nature Neuroscience*, Vol 8, No. 4, 519-526, 2002.

Week 8: Tsai, J.L. Ideal affect: Cultural causes and behavioral consequences. *Perspectives on Psychological Science*, Vol 2, 242-259, 2007

Week 8: Tsai, J.L., Louie, J., Chen, E.E., & Uchida, Y. Learning what feelings to desire: Socialization of ideal affect through children's storybooks. *Personality and Social Psychology Bulletin*, 33, 17-30, 2007.

**Class Syllabus on Following Page....**

**Class Syllabus**  
**Symsys 210, Spring 2008**  
**Learning Facial Emotions: Art and Psychology**

**2. Class Schedule**

<b>Dates</b>	<b>Tuesday Class</b>	<b>Thursday Class</b>
4/1, 4/3	Topic: Overview of Course (DCW) Administrative course details Collect student questionnaires	Topics: METT micro expressions (KAB) Experimental data collection Lab 1: Ekman METT micro expressions Take photos for feature extraction (PDK)
4/8, 4/10	Topics: The seven universal emotions (DCW) DF drawing techniques demo (PDK) Readings: Ekman Ch. 1, 5, 10, Appendix (2007) Russell, Chu, Phillips (2006).	Topics: SETT subtle expressions (KAB) Lab 2: Ekman SETT Subtle Expressions Practice DF bubble technique (PDK)
4/15, 4/17	Topics: Autism and Aspergers (DCW) DF drawing techniques (PDK, DCW) Readings: Niedenthal (2007); Neumann (2006) Paper topics write-ups due today	Topic: Drawing facial expressions (PDK) Lab 3: DF and drawing expressions drawing happy and fear emotions
4/22, 4/24	Topic: Human-computer interaction (DCW) Reading: Wright, Shinkle, & Linney (2005)	Topic: Drawing facial expressions (PDK) Lab 4: DF and drawing expressions drawing angry and sad emotions
4/29, 5/1	<b>Midterm student research presentations</b>	<b>Midterm student research presentations</b>
5/6, 5/8	Topic: Cognitive deficits & face expressions: Aging, culture, gender, etc (DCW) Readings: Matsumoto & Willingham (2006); Calder et al. (2003)	Topic: Measuring emotion recognition (KAB) Lab 5: FACS facial action coding (KAB, PDK)
5/13, 5/15	Topic: Invited Lecture on Autism (CBF) Professor Carl Feinstein, MD Readings: Dalton, et al (2005), Klin, et al (2002)	Topic: Drawing Facial Expressions (PDK) Lab 6: DF and Drawing Expressions drawing disgust, contempt, and surprise
5/20, 5/22	Topic: Invited Lecture: Facial Emotions and Culture, Birgit Koopman Readings: Tsai (2007); Tsai et al. (2007)	Topic: METT Microexpressions (KAB) Lab 7: Final Art Critique (PDK)
5/27, 5/29	<b>Final student research presentations</b>	<b>Final student research presentations</b>
6/3	Topic: Course summary and conclusions (DCW)	
6/10	Final research term papers due at 10pm	