

Syllabus
Psychology 328: Graduate Seminar in Social Psychophysiology
Fall Semester 2001
University of North Carolina at Chapel Hill

Class meets: Tuesdays, 2:00-4:50, Room 302 Davie Hall. (There will be a 15-20 minute break around the middle of each class meeting.)

Professor: Bruce Bartholow

Office: 328 Davie Hall

Office Hours: by appointment.

Other ways to contact me:

- Email: bartholow@unc.edu (please send me email ASAP so I can set up a class email list)
- Office Phone: 843-5486

Texts:

Stern, R. M., Ray, W. J., & Quigley, K. S. (2001). Psychophysiological recording (2nd ed.). New York, NY: Oxford University Press. (a.k.a., SRQ)

Hugdahl, K. (1995). Psychophysiology: The mind-body perspective. Cambridge, MA: Harvard University Press.

Additional Readings:

The text listed above is intended to give you a basic understanding of psychophysiology, and how psychophysiological measures are used. The primary focus of the course, however, is to learn and think about how psychophysiology is applied to the study of social psychological phenomena. At present, there is no textbook in social psychophysiology *per se*. As such, we will be reading articles and chapters with a specific focus on social psychophysiology, using the textbook to supplement these primary readings. A list of readings is attached to this syllabus, divided into substantive areas, and roughly corresponding to the week of the semester in which they will be covered. Readings will be put on reserve at Davis library and will be made available via the electronic reserve process. To access the readings, point your browser to <http://www.lib.unc.edu/reserves>. Once you get there, click on "Click Here to Go to Search", and then you can find the readings for this course by either entering my name or the course name and number. (Note: Readings for the first 2 weeks should be available on-line by Wednesday or Thursday. Remaining readings will be available within the next 2 weeks.)

Course Introduction and Description:

The first question on most minds in here probably has something to do with wondering just what social psychophysiology is. Briefly, I think of social psychophysiology as a sub-discipline within social psychology in which research questions of theoretical interest to social psychologists are examined using techniques developed in psychophysiology and cognitive neuroscience. Virtually unknown 10 or 15 years ago, this sub-discipline has become an important and growing area within social psychology. In this course, I hope to provide you first with a general overview of principles of psychophysiology, and then to explore with you how psychophysiology and cognitive neuroscience are used (or could be used) to address research questions in social psychology. In particular, my hope is that each of you will be able to think in terms of potential psychophysiological applications for your own research interests.

Although I fancy myself a member of this relatively new sub-discipline, I do not consider myself to be an expert in all related areas (maybe not in any related areas). I came to this field because of some particular interests that I have that, I believe, are best studied using a combination of approaches, including psychophysiology and cognitive neuroscience. As such, I will not pretend to be the glass guru, but rather will try to be a discussion leader (at times), a resource for the class, and will try not to provide you with clearly absurd information.

This course is designed to give a fairly comprehensive overview of social psychophysiology. However, as you will soon see, this area can be quite vast depending upon one's perspective, and as such we will likely not cover everything. We will focus primarily on uses of psychophysiology in several research areas within social psychology, including (but not limited to) attitudes, stereotyping and prejudice, expectancies and expectancy violation, person memory, attribution, stress and health, stigma, affective reactions, interpersonal relations, etc.

Structure of the Course

Course time primarily will be spent discussing assigned readings. In my experience, some people are very comfortable with discussion whereas others are rather shy and seem not to care for it much. If you are the former type of person, then bully for you, and if you are of the latter type, I will do my best to make the experience as non-threatening and engaging as possible. In short, this course, like all seminar courses, doesn't work without open discussion and participation among all those involved. It is especially important in a class like this to participate, as a significant proportion of your grade will be based on class participation (see below for more details). In addition, you will serve as a discussion facilitator twice during the semester, which will also be very important for your course grade (see below). Last but certainly not least; you will turn in a final paper at the end of the semester (again, see below).

Attendance

Given the small number of students in this course, it is important that you attend regularly so that our discussions can include everyone. Of course, I will understand if you miss once in a while, but please don't make a habit of it.

Grading Criteria

Course participation	30%
Discussion facilitation	20%
Literature review & research proposal	40%
Class presentation	10%

Discussion Facilitation

To help move our discussions along, a discussion facilitator (or facilitators) will be chosen for each class meeting. Given the small number of students in the course, each of you will be a facilitator twice. The task of the discussion facilitator will be to give all of us a thorough overview of the readings for the week, and to produce a series of specific discussion questions for us to think about and, well, discuss. It is not the job of the facilitator to completely understand and explain every aspect of each reading for the rest of the class. Rather, the facilitator(s) is (are) responsible for getting things going and stimulating our thoughts and ideas. The facilitator(s) should produce and distribute at least 3 discussion questions for each reading. I prefer that these questions be distributed before class meets (via email, for example), but you may bring copies to class otherwise. We may not get to all questions for all readings each week, depending on the flow of discussion and time constraints.

I would like to take this opportunity to underscore the importance of participation for all of us in this course. In order to participate adequately, each person must have done the readings and be prepared to discuss them every week, regardless of who is serving as the facilitator. This also means that anyone can and is encouraged to raise questions about the readings, or anything relevant to the course; we will not limit ourselves to discussion of the questions prepared by the facilitator(s).

Course Participation

As stated previously, the success of this course, and the amount that all of us get out of it, depends critically upon active participation among all of us. The most obvious ramification of this fact is that all class members must do the assigned readings prior to each class and be prepared to discuss them. More than passively reading, active participation requires that you think critically about what you are reading. Among a host of other possibilities, you should consider (a) the main theme of the work; (b) the key points and conclusions; (c) alternative perspectives not discussed by the authors; and (d) in the case of primary source readings, what psychological processes might be involved to produce the reported effects. Much of what we read in this course will be new to you, and thus may require that you ask yourself other questions about the material as you read it. A major focus of the course will be thinking about ways to apply psychophysiological methods to various kinds of social psychological questions. As such, you should always read with an eye toward how you might apply a given method to address questions that are of particular interest to you.

Please do your best to not feel shy or intimidated in class. All of us, myself included, have much to learn about this area of research and theory. The best way for all of us to learn is to speak up, ask questions, hurl criticisms, take a stand, retreat from it, and so on. I will do my utmost to provide an environment that encourages the safe and free exchange of ideas and perspectives. From an instructor's point of view, it is important that you

speak up multiple times during each class meeting so that I can assign you a favorable grade for the participation aspect of the course. If I never (or rarely) hear you in class, your participation grade will suffer.

One other issue about participation: Some of my fondest memories of learning in graduate school (look out, schmaltzy reminiscences forthcoming) are of times in 1 or 2 particular courses that were particularly open for discussion. In my opinion, levity and laughter are key ingredients for a warm and engaging seminar course. We also may have opportunities for “field trips” to various labs around campus where psychophysiological research (perhaps not of a social bent) is conducted. At such times, your participation will be just that you show up and act interested.

Literature Review and Research Proposal

As we progress through the semester, you should all be thinking about how you might be able to apply psychophysiological methods to research questions that you have related to any aspect of social psychology. At the end of the semester, you will turn in a paper in which you (a) review some relevant area of the social AND psychophysiological literature, and (b) propose a study (experimental or not) in which you could test your ideas using psychophysiological methods. For example, if you were interested in prejudice and intergroup relations, you might consider proposing a study in which a psychophysiological measure of attitude and/or affect related to prejudice would be measured. You would then want to review some specific aspect of the intergroup relations literature, as well as the literature related to applying the psychophysiological measure of interest. That is, what measure or measures would be most appropriate, and what evidence exists to support your ideas? The literature review portion should read more like a short book chapter than like the introduction to an empirical article.

This paper is very important to your final grade, as you can see above. Also, note in the course calendar that a preliminary draft of the paper is due about a month prior to the end of the semester, at which time the final draft will be due. You should schedule some time to meet with me after turning in your preliminary draft so that I can provide you with feedback and address concerns that you might have about the paper.

Class presentation

During our final class meeting, each of you will give a short presentation of your literature review and research proposal (i.e., your paper). This presentation does not need to be elaborate, but you should be prepared to use some overheads/slides (not a lot) and to give some detail about your idea(s). Your presentation should be approximately 20 minutes in length, but not longer than 25 minutes at a maximum. Mostly, this is an opportunity to show a little of what you have learned and to share your interesting ideas with the class. Some refreshments will be provided.

Special Needs

Students with special conditions as addressed by the Americans with Disabilities Act who need test or other course materials furnished in an alternate format should notify me as soon as possible.

Tentative Course Calendar & Readings

Dates	Topic & Readings	Facilitator(s)
August 21	<i>Syllabus, brief introduction</i>	Bruce
August 28	<i>Basics of Psychophysiology</i> <ul style="list-style-type: none">• SRQ Chapters 1 and 5• Cacioppo, Tassinary, & Berntson (2000). Psychophysiological science. In Cacioppo, Tassinary, & Berntson (Eds.), <i>Handbook of psychophysiology</i> (pp. 3-23). New York, NY: Cambridge University Press.	Bruce, _____

- September 4 *Overview of Social Psychophysiology*
- Blascovich (2000). Using physiological indexes of psychological processes in social psychological research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 117-137). New York, NY: Cambridge University Press.
 - Garnder, Gabriel, & Diekman (2000). Interpersonal processes. In Cacioppo, Tassinary, & Berntson (Eds.), *Handbook of psychophysiology* (pp. 643-664). New York, NY: Cambridge University Press.
- September 11 *Peripheral physiological responses: I, Cardiovascular Measures*
- Hugdahl chapters 9 & 10
 - Blascovich, Spencer, Quinn, & Steele (2001). African Americans and high blood pressure: The role of stereotype threat. *Psychological Science*, 12, 225-229.
 - Tomaka, Blascovich, Kibler, & Ernst (1997). Cognitive and physiological antecedents of threat and challenge appraisal. *Journal of Personality and Social Psychology*, 73, 63-72.
 - Blascovich, Mendes, et al. (2001). Perceiver threat in social interactions with stigmatized others. *Journal of Personality and Social Psychology*, 80, 253-267.
 - Wann & Branscombe (1995). Influence of identification with a group and physiological arousal on perceived intergroup complexity. *British Journal of Social Psychology*, 34, 223-235.
- September 18* *Peripheral physiological responses II: Electromyogram (EMG)*
- SRQ chapter 8
 - Ekman, Friesen, & Ancoli (1980). Facial signs of emotional experience. *Journal of Personality and Social Psychology*, 39, 1125-1134.
 - Cacioppo & Petty (1981). Electromyograms as measures of extent and affectivity in information processing. *American Psychologist*, 36, 441-456.
 - Tassinary & Cacioppo (1992). Unobservable facial actions and emotion. *Psychological Science*, 3, 28-33.
 - Vanman, Paul, Ito, & Miller (1997). The modern face of prejudice and structural features that moderate the effect of cooperation on affect. *Journal of Personality and Social Psychology*, 73, 941-959.
- September 25 *Central responses: I, Electroencephalogram (EEG)*
- Hugdahl chapter 11
 - Davidson, Ekman, Saron, Senulis, & Friesen (1990). Approach-withdrawal and cerebral asymmetry: Emotional expression and brain physiology I. *Journal of Personality and Social Psychology*, 58, 330-341.
 - Sutton & Davidson (1997). Prefrontal brain asymmetry: A biological substrate of the behavioral approach and inhibition systems. *Psychological Science*, 8, 204-210.
 - Miller & Tomarken (2001). Task-dependent changes in frontal brain asymmetry: Effects of incentive cues, outcome expectancies, and motor responses. *Psychophysiology*, 38, 500-511.
 - Cacioppo, Petty, & Quintanar (1982). Individual differences in relative hemispheric alpha abundance and cognitive responses to persuasive communications. *Journal of Personality and Social Psychology*, 43, 623-636.

October 2

Central responses: II, Event-related brain potentials (ERPs)

- Hugdahl chapter 12
- Donchin & Coles (1988). Is the P300 component a manifestation of context updating? *Behavioral and Brain Sciences*, 11, 354-356.
- Cacioppo, Crites, Berntson, & Coles (1993). If attitudes affect how stimuli are processed, should they not affect the event-related brain potential? *Psychological Science*, 4, 108-112.
- Ito, Larsen, Smith, & Cacioppo (1998). Negative information weighs more heavily on the brain: The negativity bias in evaluative categorization. *Journal of Personality and Social Psychology*, 75, 887-900.
- Crites & Cacioppo (1996). Electrocortical differentiation of evaluative and nonevaluative categorizations. *Psychological Science*, 7, 318-321.

October 9

ERPs continued

- Cacioppo, Crites, & Gardner (1996). Attitudes to the right: Evaluative processing is associated with lateralized late positive event-related brain potentials. *Personality and Social Psychology Bulletin*, 22, 1205-1219.
- Cacioppo, Crites, Gardner, & Berntson (1994). Bioelectrical echoes from evaluative categorization: I. A late positive brain potential that varies as a function of trait negativity and extremity. *Journal of Personality and Social Psychology*, 67, 115-125.
- Crites, Cacioppo, Gardner, & Berntson (1995). Bioelectrical echoes from evaluative categorization: II. A late positive brain potential that varies as a function of attitude registration rather than attitude report. *Journal of Personality and Social Psychology*, 68, 997-1013.
- Osterhout, Bersick, & McLaughlin (1997). Brain potentials reflect violations of gender stereotypes. *Memory and Cognition*, 25, 273-285.

October 16

Central responses: III, Brain Imaging Techniques: Magnetic Resonance Imaging, Positron Emission Tomography, & Event-Related Optical Signal

- Hugdahl chapter 13
- Gratton & Fabiani (2001). Shedding light on brain function: The event-related optical signal. *Trends in Cognitive Sciences*, 5, 357-363.
- Phelps et al. (2000). Performance on indirect measures of race evaluation predicts amygdala activation. *Journal of Cognitive Neuroscience*, 12, 729-738.
- Collette et al. (2001). Contribution of lexico-semantic processes to verbal short-term memory tasks: A PET activation study. *Memory*, 9, 249-259.

October 23

Combining Approaches: Using Multiple Measures to Address Multiple Questions

- Bartholow, Fabiani, Gratton, & Bettencourt (2001). A psychophysiological examination of cognitive processing of and affective responses to social expectancy violations. *Psychological Science*, 12, 197-204.
- Harmon-Jones & Allen (2001). The role of affect in the mere exposure effect: Evidence from psychophysiological and individual differences approaches. *Personality and Social Psychology Bulletin*, 27, 889-898.
- Zajonc & McIntosh (1992). Emotions research: Some promising questions and some questionable promises. *Psychological Science*, 3, 70-74.
- Ito & Cacioppo (1999). The psychophysiology of utility appraisals. In E. Diener & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 470-488). New York, NY: Russel Sage Foundation.
- Ekman, Davidson, & Friesen (1990). The Duchenne smile: Emotional expression and brain physiology II. *Journal of Personality and Social Psychology*, 58, 342-353.

October 30

Eye Movement and the Startle Eye-blink Reflex

- SRQ chapter 9
- Lang, Bradley, & Cuthbert (1990). Emotion, attention, and the startle reflex. *Psychological Review*, 97, 377-395.
- Vrana, Spence, & Lang (1988). The startle probe response: A new measure of emotion? *Journal of Abnormal Psychology*, 97, 487-491.
- *Wild card reading on eye movement

November 6

Electrodermal Activity

- Hugdahl chapter 6
- Rankin & Campbell (1955). Galvanic skin responses to Negro and white experimenters. *Journal of Abnormal and Social Psychology*, 51, 30-33.
- MacDowell & Mandler (1989). Constructions of emotion: Discrepancy, arousal, and mood. *Motivation and Emotion*, 13, 105-124.
- Blascovich & Kelsey (1990). Using cardiovascular and electrodermal measures of arousal in social psychological research. In C. Hendrick (Ed.), *Review of personality and social psychology* (Vol. 11, pp. 45-73). Beverly Hills, CA: Sage.

November 13

Psychoneuroimmunology

- Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms. *Psychological Bulletin*, 119, 488-531.
- Cacioppo, J. T., Poehlmann, K. M., Kiecolt-Glaser, J. K., Malarkey, W. B., Burleson, M., Berntson, G.G. & Glaser, R. (1998). Cellular immune responses to acute stress in caregivers and matched controls. *Health Psychology*, 17, 182-189.
- Pennebaker, Hughes, & O'Heeron (1987). The psychophysiology of confession: Linking inhibitory and psychosomatic processes. *Journal of Personality and Social Psychology*, 52, 781-793.
- Pennebaker, J.W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, 8, 162-166.

***Preliminary Draft
of Review
paper/proposal
due today***

November 20 *Melting pot readings:*

- Tobena & Marks (1999). Advantages of bias and prejudice: An exploration of their neurocognitive templates. *Neuroscience and Biobehavioral Reviews*, 23, 1047-1058.
- Blascovich (1990). Individual differences in physiological arousal and perception of arousal: Missing links in Jamesian notions of arousal-based behaviors. *Personality and Social Psychology Bulletin*, 16, 665-675.
- Cacioppo, Berntson, Sheridan & McClintock (2000). Multilevel integrative analysis of human behavior: Social neuroscience and the complimenting nature of social and biological approaches. *Psychological Bulletin*, 126, 829-843.
- Ochsner, K., & Lieberman, M. (2001). The emergence of social cognitive neuroscience. *American Psychologist*, 56, 717-734.

November 27 Lab visits

- Hopfinger's ERP lab (Cognitive Neuroimaging Lab)
- Bartholow's ERP lab (Social Cognitive Neuroscience Lab)
- Gordon's Eye-tracking lab (Cognitive Psycholinguistic Lab)

December 4 Class presentations, libations

December 12 Final Papers due by 1:00pm

*Rosh Hashanah; let me know in advance if you plan to miss class for this holiday.