



The
DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF NEW HAMPSHIRE

presents

*The George M. Haslerud
Undergraduate
Research Conference*

April 27, 2007

George Martin Haslerud (1906-1990)

George Haslerud began his career in psychology with a Bachelor's degree from the University of Minnesota in 1930. After completing his dissertation on creative transfer in 1934, he took a position at the Institute of Human Relations at Yale University where he pursued an interest in primate behavior. In 1936 he became an assistant professor at the University of Tennessee where he married Ethlyn Hurd and began a family. In 1945 they moved to New Hampshire where Haslerud joined the Psychology Department.

Both Hasleruds were founding members of the New Hampshire Psychological Association. Haslerud made many contributions to the Department of Psychology here at UNH. He was a general psychologist who spent a great deal of time mentoring students and teaching a range of courses, sending many of his students on to graduate schools and careers in psychology. Haslerud also brought with him an important global perspective, twice receiving Fulbright Fellowships for study abroad. He maintained an interest in department and university activities until his death in 1990. It is in honor of this important UNH educator that we acknowledge and celebrate the achievements of current UNH undergraduates today.

PROGRAM

1:00 Welcoming Remarks

Michelle Leichtman

Chair, Psychology Undergraduate Program Committee

John Aber

Vice President for Research and Public Service

Marilyn Hoskin

Dean, College of Liberal Arts

1:30 Awards and Psi Chi Induction – Michelle Leichtman

HASLERUD AWARD: **Danielle DeFranco**

FULLER AWARD: **Ashley Owens**

CARROLL AWARD: **Emily Carter**

PSI CHI INDUCTEES:

Eleanor Boisvert	Jan Diehl
Karen Campbell	Susan Essig
Alisa Charmanski	Hilary Keller
Cali Cornell	Kimberly McCarthy
Maria Crossman	Ashley Owens

2:00 RESEARCH PRESENTATIONS Rooms 8 (downstairs) and 101

3:30 Refreshments Room 123

PRESENTERS

Room 8

Emily Bolton, *The Assumption of Consent – Examining Students' Perceptions.* (Advisor: Dr. Victoria Banyard)

Ashley Ward, *Understanding Bystander Intervention.* (Advisor: Dr. Victoria Banyard)

Stephanie Huckins, *Undergraduates' Perspectives on Diet, Body Image and Fitness.* (Advisor: Dr. Pablo Chavajay)

Bligh Reynolds, *The Role of Hypothermia in Swim Stress Induced Deficits in Navigational Learning.* (Advisor: Dr. Robert Drugan)

Maria Zoccoli, *Metamemory in Clarks Nutcrackers.* (Advisor: Dr. Brett Gibson)

Rachel Costa, *The Use of Feature and Geometry Information During a Two-Dimensional Task Improves with Development.* (Advisor: Drs. Brett Gibson and Michelle Leichtman)

Martine Garland, *Sports Memory Recall: Males versus Females.* (Advisor: Dr. Michelle Leichtman)

Room 101

Jenna Darling, *Why You Can't Teach an Old Rat New Tricks: How Cholinergic Lesions to the Temporal Lobe Mimic Aging.* (Advisor: Dr. Jill McGaughy)

Aislinn Johnson, *Growth Themes in Memories of 5th Graders and College Students.* (Advisor: Dr. Carolyn Mebert)

Evan Brooks, *The Effects of Text Formatting on Reading Comprehension.* (Advisor: Dr. John Limber)

Emily Carter, *Verb Tense as a Predictor of Reader Reaction to Autobiographical Narratives.* (Advisor: Dr. David Pillemer)

Lyndsay Schneiderman, *Effects of Cholinergic Modulation of the Thalamus on Visuospatial Reaction Time.* (Advisor: Dr. Robert Mair)

Nichole Guenard, *Do Sexually Explicit Advertisements Influence Attitudes About Rape?* (Advisor: Dr. Ellen Cohn)

Abigail Noyce, *Perception of Local Rigidity Due to Lines in Rotating Random-Dot Textures Viewed Through an Aperture.* (Advisor: Dr. William Stine)

ABSTRACTS OF THE
2007
HASLERUD CONFERENCE

*WHY YOU CAN'T TEACH AN OLD RAT NEW TRICKS: HOW
CHOLINERGIC LESIONS TO THE TEMPORAL LOBE MIMIC AGING*

Jenna Darling

Previous work has shown that a loss of acetylcholine (ACh) in the entorhinal cortex (EC) impairs memory for novel, but not familiar items. This impairment dissipated when subjects were repeatedly exposed to the novel items. Two major limitations of the previous work are a failure to test multiple sets of novel items to determine if the impairment is found with each test, and ambiguity about whether the problem is one of encoding the novel odor or discriminating novel from familiar odors. Rats were trained on an odor-based delayed non-match-to-sample task prior to lesions of the acetylcholine-releasing cells in the EC. After recovery from surgery, rats were presented with a highly familiar set of odors as well as multiple novel sets of odors. Multiple novel odors sets were used to show that impairments remain and are not compensated for by changes in the brain over time. Lastly, animals were presented with a novel choice and novel sample manipulations in order to demonstrate that the deficits are a result of the inability to encode novel information and not discriminate a novel odor from a familiar odor. The results of the study show that Ach-EC lesioned animals had deficits on all of the novel odor manipulations. They also show deficits in the novel sample manipulation but no deficits in the novel choice manipulation which supports the hypothesis that the impairment is in encoding the novel item.

GROWTH THEMES IN MEMORIES OF MIDDLE SCHOOL AND COLLEGE STUDENTS

Aislinn Johnson

Past research has shown that adults who are both mature and happy, traits that are aspects of "the good life" (King, 2001), emphasize both integrative and intrinsic growth themes in autobiographical memories. Integrative themes focus on an inward understanding of social-cognitive development and examine meaning of self, others, and the world around the self. Intrinsic themes focus on well-being in the areas of personal growth, relationships, and contributions to society (Bauer et al, 2005). In this study, these two types of themes were examined in a sample of 5th graders and college students. Participants were asked to describe three memories (positive, negative, life-altering) and fill out a self concept scale. Though no correlations were found between self concept and prevalence of growth themes, college students and females had significantly more growth themes in their memories. For 5th graders, the highest frequency of growth themes came from the positive memory; for college students the life-altering memory yielded the largest number of themes.

*THE USE OF FEATURE AND GEOMETRY INFORMATION DURING A TWO-DIMENSIONAL TASK
IMPROVES WITH DEVELOPMENT*

Rachel Costa

Fifty children ranging from four to ten years of age participated in a two-dimensional search task that included geometry and feature conditions. During an experimental session participants watched as a cartoon character hid behind one of three landmarks arranged in a triangle on a computer screen. The landmarks and character then disappeared and reappeared in the same or a new position on the screen. During feature condition trials participants could use unique features of the landmarks to locate the hidden character, while during geometry trials participants could only use the geometry of the triangle. Young children were more accurate in locating the hidden character when using feature compared to geometry information. The use of both feature and geometry information improved steadily with age, however, such that older children were more accurate than younger children and used both types of information equally well to locate the goal.

SPORTS MEMORY RECALL: MALES VERSUS FEMALES

Martine Garland

Fifty-nine college athletes participated in an interview study focusing on the nature and content of sports-related memories. Participants provided memories of recent sports participation, childhood memories, and the moment when they knew they would participate in high-level athletics. Participants also answered questions about their motivations to pursue and continue in college athletics. Results focused on differences across gender and sport (hockey versus basketball) in memory themes and in the degree to which memories were specific, elaborated and emotional.

THE ROLE OF HYPOTHERMIA IN SWIM STRESS INDUCED DEFICITS IN NAVIGATIONAL LEARNING

Bligh Reynolds

Animal models of depression are useful for identifying pathways from depression to behavioral deficits. Intermittent cold water swim (ICWS) stress is a recently developed, ecologically valid model of animal depression. Previous studies using ICWS have shown a main effect of stress on navigational learning (Drugan et al., 2006). However, a confounding factor in previous studies was the water temperature. The cold water might have caused hypothermia in some animals, which could have contributed to the observed deficits in learning. In the present experiment we evaluated the effect of hypothermia by using both cold (15°C) and ambient (30°C) water for ICWS. 15° water induced a significant hypothermia which returned to baseline levels within two hours, while 30° water produced only a transient hypothermia. No group differences in hypothermia were observed during Morris Water Maze learning or memory tests. Additional analyses revealed that the confined control group differed significantly in learning performance from the 15° group. This suggests that the 15° water produced an additional stress that 30° water does not produce. No group differences were observed in the memory test.

METAMEMORY IN CLARKS NUTCRACKERS

Maria Zoccoli

Metamemory is the knowledge or awareness that a person possesses about what they do or do not remember. We investigated if a non-human animal, the Clarks nutcracker has metamemory. Nutcrackers cache up to 33,000 pine seeds in thousands of unique locations during the fall and recover the seeds during the course of the winter for survival. Given their impressive spatial memory, perhaps nutcrackers might have some level of memory awareness. In the current experiment, we trained nutcrackers on a color Delayed Matching-to-Sample memory task in an operant chamber. The birds were later given a choice between taking a test of memory for a large reward and opting out of the memory test for a smaller reward during trials that either had a short or longer delay interval. If nutcrackers have metamemory then they should choose the test of memory following a short delay (when memory is good) and opt out during some of the longer intervals when memory might be expected to be relatively poor during some trials. Only limited tests have been conducted thus far, but the evidence from one bird indicates no evidence for metamemory.

THE EFFECTS OF TEXT FORMATTING ON READING COMPREHENSION

Evan Brooks

Reading comprehension in elementary school age children was studied using different text formats: normal type (NT, lines cover full width of page) and Friendly Type (FT, short clusters of words in a line). Participants' comprehension of the text was assessed after reading a passage in each of the formats. Comprehension scores of first and second graders were significantly higher in the FT condition, 3rd graders' performance was the same across conditions and 4th graders performed slightly better with the NT text. This trend might suggest FT format improves reading comprehension in participants who have had less experience with NT format.

VERB TENSE AS A PREDICTOR OF READER REACTION TO AUTOBIOGRAPHICAL NARRATIVES

Emily Carter

When describing a personal memory, individuals often use vivid language techniques as a way to engage the listener. This study examined how subjects respond to reading emotional narratives, with a specific focus on the effect of a shift into the present tense. This is a follow-up to a similar study in which participants listened to three narratives. Some heard narratives that shifted into the present tense; others heard ones that remained in the past tense throughout. The results indicated that listener reactions were affected by the verb tense shift. In an attempt to eliminate some of the potential confounds of having an actor read the narratives, this study read the narratives aloud themselves. College students (N=87) read the same three narratives used in the original study; again, half the participants read stories that shifted into the present tense and half read ones that remained in the past tense throughout. The results of the original study were not replicated.

EFFECTS OF CHOLINERGIC MODULATION OF THE THALAMUS ON VISUOSPATIAL REACTION TIME

Lyndsay Schneiderman

In this experiment, drugs were micro-injected into the brain to study the role of central thalamus in visually-guided responding. We were particularly interested in elucidating the influence of acetylcholine (ACh), a neurotransmitter thought to optimize thalamic function during periods of behavioral arousal. Inactivating central thalamus with a drug that activates inhibitory GABA_A receptors, affected both the speed and accuracy of responding. This result showed that acute inhibition produced deficits comparable to previous results for lesions that permanently damaged central thalamus. Blocking the nicotinic subtype of ACh receptor with the drug mecamylamine affected response accuracy, but not speed. Blocking the muscarinic subtype of the ACh receptor with the drug scopolamine affected measures of response speed, but not accuracy. Comparison with injections made above thalamus showed that the effects of mecamylamine were localized in thalamus, while the effects of scopolamine were not. The

specific effects of ACh in central thalamus were confirmed in a second study in which drugs were injected into the mesopontine area of the brainstem to inhibit the activity of neurons releasing ACh in central thalamus. The effects of both thalamic and mesopontine drug injections on VSRT accuracy were unaffected by manipulations of stimulus duration designed to vary demands on sensory attention. These results suggest that nicotinic ACh receptors specifically modulate motor aspects of visually-guided responding.

DO SEXUALLY EXPLICIT ADVERTISEMENTS INFLUENCE ATTITUDES ABOUT RAPE?

Nichole Guenard

This study explored whether advertisement content affects people's ratings of the ads' general appeal and their scores on rape myth acceptance, hostile sexism, and benevolent sexism scales. Undergraduate students (n=170) were asked to view five advertisements containing one of the following contents: women as sex objects, women in nontraditional roles (progressive), product only (control). They then rated each advertisement using a scale of thirty-two adjectives, and filled out a survey that contained the rape myth acceptance and hostile and benevolent sexism scales. Factor analysis of the general appeal ratings resulted in three factors: salience, stimulation, and gratification. Sex object advertisements were rated as less salient than both progressive and control advertisements. Men rated the sex object advertisements as more stimulating and gratifying than the other two conditions. Men in the control condition rated the advertisements as more gratifying than did men in the progressive condition. Women did not vary on ratings of stimulation and gratification by advertisement content; however, they rated sex object advertisements as less salient than the other two conditions. Benevolent sexism was found to be a significant predictor of salience and gratification.

Perception of Local Rigidity Due to Lines in Rotating Random-Dot Textures Viewed Through an Aperture

Abigail Noyce

When an animation of a rigidly-rotating shape is viewed through an aperture, it can appear to be deforming rather than rotating rigidly in depth. Stimuli were animations of a randomly-textured square rotating around a horizontal axis, and were viewed either in their entirety or through an aperture. Manipulations included the presence or absence of lines across the textured surface, and whether the texture was defined using a single set of points, or was resampled for each animation frame. Viewers were asked to indicate whether they perceived rigid motion or deformation. The presence of lines in the stimuli increased the likelihood that a deformation was perceived when viewed through an aperture. Motion was rarely seen in resampled textures when viewed through an aperture. In the cases where rigid motion is perceived through apertures, the visual system combines the motion of individual texture elements with the rigid lines to create a perception of localized rigidity in three dimensions.

THE ASSUMPTION OF CONSENT- EXAMINING STUDENTS' PERCEPTIONS

Emily Bolton

The aim of this study was to learn how concepts such as "unwanted sexual experience" and "consent" are perceived by undergraduate students by placing their voices at the center of the research. Twenty students participated and were individually interviewed using a standard, qualitative protocol. Analysis focused on the discrepancies between how students believe consent should be obtained (the ideal definition) and how they actually go about obtaining it (the actual definition). Most students recognized that, ideally, they should obtain consent from their partner; however, when discussing what their peers actually do, the majority of students suggested that consent is assumed to be present until their partner suggests otherwise. The data also showed that in the ideal, students emphasize verbal consent, but in actuality, the focus lies on physical forms of consent such as reading body language or initiating physical contact.

UNDERSTANDING BYSTANDER INTERVENTION

Ashley Ward

Recent research documents the problem of sexual assault and the importance of preventing sexual assault through community awareness and prosocial helping behaviors. This study investigated bystander attitudes (e.g. victim blame, perceived efficacy, etc.), how these attitudes contribute to bystander willingness to help and actual behaviors of bystanders (within the past two months). Participants were 184 (76.2% female) undergraduate students. The results indicated that more positive bystander outcomes were related to having taken a class that discussed sexual and/or intimate partner violence, greater knowledge of information relating to sexual and intimate partner violence, and more actual chances for the bystander to intervene. Victim blaming attitudes were related only to decreased willingness to help and decreased bystander efficacy but not to actual bystander actions.

UNDERGRADUTES' PERSPECTIVNESS ON DIET, BODY IMAGE AND FITNESS

Stephanie Huckins

Health concerns regarding diet, body image, and exercise are the focus of much media attention in the general public. Most research on these topics has involved females with eating difficulties in clinical environments. The present study examined gender differences in perceptions of diet, body image, and exercise among 172 undergraduates, using a newly developed questionnaire. Findings indicated that females were more concerned about diet than males, and males were more concerned about body image. No sex difference was found in perceptions of exercise. Overall, the findings suggest the importance of gaining insights about sex differences in perspectives on eating and fitness practices in non-clinical samples.

