

## Abstracts From the Northern Lights Psychology Conference

*University of North Dakota  
October 2001*

### **From the Executive Editor**

PRESENTED over the next several pages are abstracts from the First Annual Northern Lights Psychology Conference, held on October 27, 2001, at the University of North Dakota. According to Dr. Douglas Peters, the primary conference organizer, the purpose of the conference was to provide a time during the fall for students and faculty living in the Northern Plains to meet for fellowship, professional contact, and discussion of research findings and ideas. As Editor of this journal, I thought it would be a perfect medium to present, distribute, and showcase these abstracts and encourage students and faculty to consider submitting to the second annual conference next fall. Support for the conference was generously provided by the UND Associate Vice President for Enrollment Management, ND EPSCoR, UND Graduate School, UND Vice President for Academic Affairs and Provost, UND College of Arts and Sciences, Indians in Psychology Doctoral Education (INPSYDE), and the UND Department of Psychology.

### **F. Richard Ferraro**

*Keynote Address:* Amy Wenzel, Ph.D., University of North Dakota

Amy Wenzel, Ph.D., Erin N. Haugen, Lydia C. Jackson, Peter Schmutzer, Jennifer Brendle, Kirsten Robinson, and Talia Tweten

### **Postpartum anxiety: Symptoms, cause, and consequences**

Although the symptoms, causes, and consequences of postpartum depression are well established, few studies have been conducted to examine the nature of anxiety symptoms and disorders in the postpartum period. In the present study, 68 women who were approximately eight weeks postpartum completed a diagnostic interview and self-report inventories assessing symptoms of anxiety and

depression. Postpartum women scored significantly higher than normative samples on self-report inventories of depression and traumatic stress symptoms, particularly those related to childbirth. Approximately 30% of the sample reported symptoms of generalized anxiety disorder, and 20% of the sample reported symptoms of social phobia. The prevalence of diagnosed anxiety disorders in postpartum women was higher than base rates for the general population, and the prevalence of diagnosed major depression in postpartum women was smaller than base rates for the general population. These preliminary results suggest that postpartum anxiety, particularly generalized anxiety and worry, is more common than postpartum depression.

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Morning Poster Session  
Saturday, October 27, 2001  
9:00–10:00 a.m., Sioux Room

1. Rebecca Senff and Paul Markel: Minot State University

**Secondary-group formation within a larger group**

In team-based activity, smaller groups often form within the team. We used cluster analysis to objectively discriminate groups on a college volleyball team on the basis of performance ratings. There were no significant differences in personality temperament between the two clusters. However, there were significant differences in self-reports of cohesion between the two clusters. Team ratings of individual performance are associated significantly with an individual's subjective-report of team value.

2. Grant A. Bauste, Brent M. King, & Jeffrey N. Weatherly: University of North Dakota

**Anticipatory induction when rats respond for saccharin reinforcers**

Previous research from our laboratory has indicated that rats will press a lever for sucrose reinforcers at a higher rate when food-pellet reinforcement is upcoming later in the session than when sucrose reinforcement will be available for the entire session. The relative size of this increase in responding has been shown to be inversely related to the concentration of sucrose for which subjects respond. This finding may be linked to caloric value. Thus, we conducted an experiment in which subjects responded for saccharin reinforcers of different concentrations in different conditions. Upcoming food-pellet reinforcement increased response rates for saccharin and the relative size of the increase was bitonically related to the concentration of saccharin. These results suggest that both caloric content and hedonic value may mediate when upcoming food-pellet reinforcement will produce anticipatory induction.

3. Lori A. Shaleen and Alan R. King: University of North Dakota

**The efficacy of residential care in the management of serious mental illness**

The present study contributes to a growing database demonstrating the efficacy of residential treatment care for individuals diagnosed with serious mental illness. This study is distinguished by its longitudinal collection of data at two-month intervals over an eight-month study duration. Nine individuals residing at a supportive residential care facility (Harvest Homes) were compared with 18 others receiving team-based outpatient case management mental health services (Prairie Harvest Foundation) over an eight-month period. Eighty-nine percent of the Prairie Harvest Foundation group and seventy-eight percent of the Harvest Home group were diagnosed with psychotic conditions. Six major dependent measure outcomes including level of symptomatology, psychosocial adjustment, life satisfaction, work success, and hospital recidivism rates were examined at two-month intervals over five recording periods. Many different factors influence the assignment of treatment services to individuals presenting for mental health services around the nation, and the present design represented an uncontrolled quasi-experimental comparison of residential and team-based outpatient case management. The majority of participants in both groups identified positive aspects of treatment, and hospital recidivism rates were found to be low. Significant differences were not found between the two treatment groups on five of the six dependent measures. This occurred despite the significantly higher level of psychiatric symptoms observed among participants assigned to residential care. Residential care recipients seemed to show similar levels of quality of life, psychosocial adjustment, work success, hospital recidivism risk, and satisfaction with services as the team-based outpatients who were experiencing significantly lower levels of psychiatric symptomatology. However, these results should be interpreted with caution as small to medium effect sizes decreased the power of this study and may have contributed to the lack of significant results on five of the six dependent measures. There is a need for further examination of residential psychiatric care as a treatment modality.

4. Jennifer R. Brendle, B.A. and Amy Wenzel, Ph.D.: University of North Dakota

**Validation of prose passage stimuli to investigate cognitive biases in psychopathology**

Although tasks and stimuli are frequently borrowed from the cognitive psychology literature to examine cognitive biases in individuals with psychopathology, rarely are they adequately normed and validated. To investigate memory and interpretation biases toward threat in socially anxious individuals, ten 300-word prose passages of positive, negative, and neutral content were created. Passages were equated for reading level such that all were between fifth and sixth grade reading level. Norming indicated that positive passages were significantly more pleasant than neutral passages ( $p < .001$ ), which in turn were significantly more

pleasant than negative passages ( $p < .001$ ). In addition, a memory task was created to assess recall of passage details. Norming indicated that items pertaining to positive and negative passages were of equal difficulty and importance to passage content. Finally, a task was created to assess participants' interpretation of the recalled details, in which participants will rate the likelihood of a positive, negative, and neutral interpretation of the event. Norming confirmed that each option included in the interpretation task corresponded to its expected valence. Because these stimuli and tasks were carefully constructed and normed, it is hoped that researchers investigating cognitive biases in psychopathology will incorporate them into their design.

5. Dave Alford: Dickinson State University

#### **Personality traits and measures of self-awareness of registered nurses**

The research involved measurement and comparisons of self-awareness and personality traits of Registered Nurses (RNs) in the upper mid-west region of the USA. Three major research questions were formulated: 1) What are the mean personality traits of RNs as measured by a standardized personality test? 2) To what extent are RNs' self-awareness of their personality traits accurate? and 3) Are personality traits related to nursing specialty fields? Survey research methodology was used. Names and addresses of the target population were obtained from the Licensing Boards of ND, SD and MN. A random sample of 435 RNs was invited to participate in the study resulting in a total of 129 participants. Information, consent forms, and a demographic questionnaire were sent to participants along with a widely-used, valid and reliable test of personality characteristics (16PF) provided by the Institute of Personality & Ability Testing (IPAT) which funded, in part, the research. Completed 16PF test protocols were sent to IPAT for scoring and analysis. The computer-generated personality report was then sent to each respective participant. Demographic and 16PF data were summarized and subjected to both descriptive and inferential statistical analysis. Results were, generally, that 1) RNs differ from the 16PF norm group on several personality traits, 2) there are several personality differences among nursing specialty groups, and 3) nurses' awareness of their own personality characteristics is mostly accurate with some skewness for several personality traits. The data were used by IPAT to construct 16PF norms for nursing personnel.

6. Iwona Chelminski and F. Richard Ferraro: University of North Dakota

#### **Modulating effects of time of day on age differences in memory performance**

A total of 48 young adults and 45 older adults were tested individually on a prose recall task and a "garden-path" task, with this latter task presented in a dual-task procedure. Results confirmed well-documented age differences in prose recall, prose reading time, and reaction time to a secondary task in a dual-task procedure. However, no time-of-day effects emerged (i.e., there were no age  $\times$

time-of-day interactions). Results are discussed with regard to supposed "synchrony effects" as they relate to adult age.

7. Talia Tweten, Erin Haugen, B. A., Kristen Robinson, & Amy Wenzel, Ph.D.: University of North Dakota

**A preliminary investigation of self-reported anxiety in postpartum women**

Although the causes, course, and treatment of postpartum depression are well established, little work has been conducted to examine the nature of anxiety symptoms in the postpartum period. In the present study, childbearing women from the community were identified from birth announcements in the Grand Forks Herald and recruited into the study when they were approximately six weeks postpartum. Participants completed self-report inventories assessing various types of anxiety symptoms, depression, social functioning, self-reported parenting, and relationship satisfaction. Participants were 28.7 years old, 29% were primiparous, and 98% were in a relationship with their baby's father. Results indicated that postpartum participants reported higher levels of depressive symptoms than individuals in a normative sample. In addition, several women in this sample reported significant difficulties with generalized anxiety symptoms. The most problematic domains of worry were finances, women's appearance, household duties, and the cleanliness of their surroundings. Self-reported worry and somatic anxiety accounted for a significant percentage of the variance in social functioning in excess of that accounted for by depressive symptoms. In all, it appears that postpartum anxiety is a common experience in childbearing women that has the potential to cause life interference and clinically significant distress.

8. David A. Jackson and Alan R. King: University of North Dakota

**The negative halo effect of oppositional defiant behaviors on teacher ratings of ADHD: Impact of child gender**

This study explored one potential reason for differences in diagnostic rates of attention deficit hyperactivity disorder (ADHD) between genders: teacher-based rating bias. Abikoff, Courtney and Pelham (1993) showed elementary teachers two tapes of a male child in a fourth grade classroom, then had the teachers complete ADHD and ODD rating scales. One tape depicted a normal child; another depicted a child exhibiting either ADHD or ODD behaviors. Rating comparisons from the ADHD v. ODD tapes showed biases: the ADHD tape was rated higher than the ODD tape on ADHD rating scales and lower on ODD rating scales, while the ODD tape was rated higher than the ADHD tape on ODD rating scales but equal on ADHD rating scales. It was hypothesized that ODD behaviors exerted a halo effect on ADHD ratings. The present study replicated and extended the Abikoff et al. study with new tapes including female actresses, hypothesizing that bias existed with the male, but not the female tapes. Following the procedures of Abikoff et al., this study showed new tapes to 80 rural

midwestern teachers. Though the tapes followed Abikoff's scripts, objective behavioral rating scales found crucial differences between his tapes and the present study tapes. ADHD v. ODD tape comparisons showed no bias. Yet, comparisons of ADHD/ODD vs. normal tape ratings showed a bi-directional bias: ADHD behaviors inflated ODD ratings, with females rated significantly higher on ODD behaviors than males, and ODD behaviors inflated ADHD ratings, with males rated significantly higher than females on ADHD behaviors. Results indicate that teachers may not differentiate between ADHD and ODD behaviors on rating scales, and that gender of the child exhibiting disruptive behaviors influences teacher ratings. Since diagnosticians and prevalence rate studies rely upon teacher ratings, these findings imply: (a) compared to females, the male prevalence rate for ADHD may be artificially inflated by the presence of ODD behaviors; (b) compared to males, the female prevalence rate for ODD may be artificially inflated by the presence ADHD behaviors; and (c) the comorbidity rate between ADHD and ODD may be artificially inflated by teacher failure to differentiate between ADHD and ODD behaviors.

9. Keri Pinna and Amy Wenzel, Ph.D.: University of North Dakota  
**Affective tone and specificity of four types of anxious memories**

Although it is logical to expect that anxious individuals would demonstrate memory biases toward threatening stimuli, research conducted to validate the existence of this type of cognitive bias has been equivocal. Specifically, memory biases toward threat generally have been confirmed in individuals with panic disorder and posttraumatic stress disorder, but they have not been found in individuals with social phobia and generalized anxiety disorder. The aim of the present study was to determine whether memories associated with different types of anxious experiences vary in some systematic way in nonanxious individuals. One hundred college students retrieved autobiographical memories associated with panic, trauma, worry, and social anxiety. Memories related to panic and trauma were characterized by more negative affect than memories related to worry and social anxiety. Panic-related memories were the most specific, followed by socially anxious memories, traumatic memories, and worry-related memories. It is suggested that the nature of anxiety-related memories differs depending on the dimension of anxiety under consideration, which might account for previous research suggesting that some, but not all, anxiety disorders are characterized by memory biases toward threat.

10. Brian K. Moe and Alan R. King: University of North Dakota  
**Reports of childhood exposure to physical abuse as a predictor of adult laboratory-induced aggression**

Twenty-seven college students ranking high or low on the Physical Abuse Subscale of the Violent Experiences Questionnaire (VEQ) completed two sessions of the Point Subtraction Aggression Paradigm (PSAP) and the Overt

Aggression Scale (OAS). Results indicate strong correlational relationships between Domestic Discord, Parental Conflict, and Physical Abuse subscales and the OAS and PSAP Aggression measures: Total Aggression and Aggression Intensity. Results indicate that aggregate family discord, rather than unitary physical abuse, is predictive of young adult laboratory-induced aggressive responding.

11. Matthew D. Bailly and Alan R. King: University of North Dakota  
**Alcohol effects on laboratory-induced aggression among participants with and without MCMI-II aggressive-sadistic high-point profiles**

The effects of alcohol and aggressive personality traits were investigated using the laboratory-induced Point Subtraction Aggression Paradigm (PSAP). Forty-one male college students were randomly assigned to alcohol, placebo, or time conditions, with participants generating base rate Aggressive-Sadistic scores in excess of 75 on the Millon Clinical Multiaxial Inventory (MCMI-II) examined as a subgroup within the alcohol condition. Participants performed four 25-minute PSAP sessions at baseline and the ascent, peak, and descent points on the alcohol elimination curve. Significant differences in aggressive responding were not found as a function of comparison group, PSAP session, or the interaction by these two variables. PSAP aggression changes from baseline to ascent, peak, and descent did not appear to be affected by group assignment. Mood and Affect Checklist-Revised (MAACL-R) variables did not differ significantly on the basis of group assignment, but participants in general showed higher levels of depressed mood, decreased levels of positive affect, and lower sensation seeking tendencies from baseline at the conclusion of the four PSAP sessions. Baseline PSAP aggression was significantly correlated with baseline MAACL-R Sensation Seeking scores, but none of the other mood state scores predicted baseline PSAP aggression. The MCMI-II schizoid personality scale provided the only significant predictor of aggressive responding in the baseline session only.

12. Vickie Schoch, Lisa Atwell, Roxanne Bloom, Brianna Melhoff:  
Dickinson State University

**The Ima Natzoh Very Good Cook Test**

This study involved the development of a psychometric test, the Ima Natzoh Very Good Cook Test. The test was normed and standardized on 81 participants, all of whom were students attending Dickinson State University in Dickinson, North Dakota. Norms were developed relative to gender, age, marital status and a number of additional classifications. This test was designed to assess the extent to which the participants were knowledgeable of cooking terms and utensils/cookware. Correlation coefficients and measures of internal consistency were determined from this pilot group. Results found older female students to be the most proficient in cooking knowledge.

Morning Oral Presentations Session  
Saturday, October 27, 2001  
10:00–11:30 a.m., Lecture Bowl

1. 10:00–10:15 Mark Grabe: University of North Dakota

**Voluntary use of online lecture notes: Individual variability and frequency of misuse**

This study uses a questionnaire and data stored by the server to evaluate student use of online lecture notes. Note taking and note reviewing are common learning activities with well-documented problems. Online notes provide the opportunity to address some limitations in study note taking and provide the opportunity to gather data on student use of notes in a naturalistic setting. Voluntary use of online notes declined throughout the semester, but was related to higher examination performance even after statistically accounting for differences in aptitude and motivation. Students made the most frequent use of notes close in time to the original class presentations and appeared to print notes for assistance in processing the lectures in class. There was evidence that some students did use online notes in place of class attendance and that such students had lower mastery achievement goals.

2. 10:15–10:30 Dmitri V. Poltavski and Tom Petros, Ph.D.: University of North Dakota

**Nicotine as a mnemonic?**

Effects of nicotine delivered via a transdermal patch on prose memory and attention were examined in 17 male smokers and 19 male non-smokers. Their performance on a computerized prose memory task and the Rapid Visual Information Processing task (RVIP) was assessed 6 hours following patch application. The results demonstrated that smokers in the placebo group recalled a significantly greater number of propositions than their counterparts in the nicotine group. The findings also revealed that both smokers and non-smokers in the nicotine condition committed a significantly greater number of false alarms than the placebo controls. The results are interpreted on the basis of a significant difference between the two groups of smokers on the number of cigarettes smoked daily, which could have influenced the findings. It is also suggested that a 21mg of nicotine patch might be more optimally used with moderate smokers rather than heavy smokers as was previously believed.

3. 10:30–10:45 Dan Conner: Dickinson State University

**Gender differences in children's attitudes toward mathematics**

There has long been discussion on whether or not there are gender effects in different academic areas, particularly mathematics. This includes not only achievement, but attitude as well. This study looked at the attitudes, defined as subjective task value, in the mathematical thinking of 201 3rd and 5th grade stu-



dents in a small community in the upper plains region of the United States. It also looked at how those attitudes related to students' indications of interest in taking advanced mathematics courses in the future. While it was believed that gender differences would be found at each grade level as well as overall, this was not the case. Small differences were found by gender, but not to a degree of statistical significance. Even though significant differences were not found, a pattern did appear to develop in which males tended to have slightly more positive attitudes toward mathematics.

4. 10:45–11:00 Lydia C. Jackson and Amy Wenzel, Ph.D.: University of North Dakota

**PTSD and specific phobia symptomatology related to childbirth: A case study**

Posttraumatic stress disorder (PTSD) after childbirth has been linked to previous psychological treatment, a negative cognitive appraisal of past delivery, nulliparity, and negative perceptions of delivery staff (Wijma, Soderquist, & Wijma, 1997). Using the Traumatic Event Scale (TES) Wijma et al. found that 1.7 percent of women met *DSM-IV* criteria for PTSD related to recent childbirth. Gonda (1999) described postnatal depression (PND) as a specific clinical disorder resulting from experiencing fear and trauma during childbirth. According to Gonda, women with PND may exhibit symptomatology consistent with PTSD, including fear of dying and dissociation. Moreover, van Son, van der Hart, Smittenberg, Verker, and Pop (1999) found “a substantial part of mothers” reported that giving birth was a traumatic event typified by dissociative elements. This presentation will present a case study detailing PTSD and specific phobia symptomatology related to childbirth.

5. 11:00–11:15 Gregory K. Patton: University of North Dakota, Murray R. Barrick: University of Iowa, and Mitchell J. Neubert: Bowling Green State University

**Breaking the psychological employment contract: The effect of downsizing on an employee's decision to leave a work team**

This study examines voluntary, avoidable turnover from the organization and voluntary, avoidable turnover from the team (turnover and transfer) in two team-oriented settings. First, we investigate whether a reduction in force (RIF) moderates the relationship between turnover antecedents and voluntary, avoidable turnover in team-oriented organizations. Second, we test these same antecedents to determine if the construct of team turnover provides a similar view of the moderating effect of a RIF. Longitudinal data were collected from two team-oriented organizations ( $N = 95$  and  $100$ ), one of which experienced a RIF during the course of the research. Measures of role-related stress, team cohesion, satisfaction with the team, member performance, and turnover intent were collected. Actual turnover and transfer data were obtained a year later subsequent to the announce-

ment and implementation of the RIF. Findings support a moderating role of a RIF in explaining the relationships between the antecedent variables and both voluntary, avoidable turnover from the organization and voluntary, avoidable team turnover in team-oriented settings.

#### Afternoon Oral Presentations Session

Saturday, October 27, 2001

1:00–2:00 p.m., Lecture Bowl

1. 1:00–1:15 Elizabeth Nawrot and Kristen McIntyre: Minnesota State University Moorhead

#### **The Family Firearm Safety Survey: Is “just say no” enough to teach firearm safety skills?**

With the increased awareness of violence in schools and among children, it is important that we learn about families' and children's firearm safety knowledge. Much of the research has focused on urban areas, where handguns and violent crime are the contexts of firearm experience. Interventions to teach safety skills have proven ineffective in these communities. This research examines the firearm safety practices of families with kindergarten-aged children from a rural community. The Family Firearm Safety Survey is a 39-item instrument consisting of demographic, checklist, and open-ended questions. While only 12% of families report owning handguns, nearly one-third own shotguns and/or rifles. Although only about half report having firearm safety training, the majority do engage in safe firearm storage. Parents report that children's exposure to firearms is through media and hunting experiences—not in the context of violent crime. Parents talk to their children “frequently” about firearm safety, although they are frustrated with a lack of educational resources.

2. 1:15–1:30 Jason McCray: University of North Dakota

#### **Mathematics anxiety and performance from a constructivist perspective**

This project proposes a theoretical model of mathematics anxiety and performance based on George Kelly's (1955) personal construct psychology. Construct methodology was used to explore the relationship of math related constructs to mathematics anxiety and performance and these measures were compared to traditional (quantitative) measures on the basis of predictive ability. A regression model based on construct based measures (subjective dimensions) accounted for somewhat more variance in mathematics anxiety than a regression model based on traditional measures (GPA, number of math courses, ACT score, etc.). A construct regression model for math performance accounted for much more variance than traditional measures. These findings are discussed in light of the theoretical model proposed in the paper and the implications for future research.

3. 1:30–1:45 Kathryn J. Apostol and Douglas Peters: University of North Dakota

**Comprehension of plain language and non-plain language jury instructions**

Research suggests that jurors do not understand the often convoluted language of jury instructions. Some states have recently simplified their instructions but others continue to debate the issue. In this study, college students listened to either new, “plain language” Minnesota jury instructions or older Minnesota jury instructions addressing the same topics. Participants then took a written comprehension test covering legal rules contained in the instructions. Participants also completed a Nelson-Denny vocabulary test and provided demographic information. No significant treatment group differences were found for overall comprehension scores. Vocabulary scores correlated strongly with comprehension scores for both groups of subjects. The results suggest that a juror’s verbal proficiency is more important in predicting comprehension of jury instructions than the language style of the instructions. Also, response patterns for some items suggest that people maintain preconceived notions of legal rules despite clear instruction to the contrary. Most notably, over half the participants endorsed a “beyond a reasonable doubt” standard of proof, despite being instructed that a much more lenient standard was required.

4. 1:45–2:00 Ronald V. Park II, Thomas V. Petros: University of North Dakota, and Robert Till: Northern Arizona University

**What is the point at which readers begin to integrate textual information?**

A lexical-decision based inference task was administered to 123 UND students individually on a computer. Four variables, rapid serial visual presentation (RSVP), stimulus on-set asynchrony (SOA), reading skill, and target appropriateness were manipulated. Presentation rate, RSVP, was either 300 ms per word or 500 ms per word. Duration of pause after presentation of the inference building text and before the lexical decision target, SOA, was either 800 ms or 1200 ms. Students were split into “skilled” and “less skilled” readers based on their performance on the Nelson Denny reading test. Targets for the lexical decision were pseudo-words, contextually appropriate words, or contextually inappropriate words. Significant results indicate that under similar conditions skilled readers may begin to integrate textual information before less skilled readers.

**Afternoon Poster Session**

Saturday, October 27, 2001

2:00–3:00 p.m., Sioux Room

1. Dan Sturgill and F. R. Ferraro: University of North Dakota

**Effects of thought suppression on later recall of valenced, self-referenced adjectives**

A total of 180 subjects received an induced-sadness manipulation before being asked to concentrate on associations between visual images and 28 adjectives.

tives (14 positively-valenced, 14 negatively-valenced). After a 5-minute period of suppressing thoughts of one of the visual images, participants were asked to remember as many of the 28 adjectives as possible. The expected interaction between suppression type and memory load was not significant, although participants in the negative suppression group recalled fewer positive words than either the positive suppression group or the control group. Implications for future research are discussed.

2. Fischer, C., Klausen, E., and Mori, M.: Concordia College

### **The role of personality in the self-referencing effect**

This study examined the role of self-referencing on memory for story information. The self-referencing effect is superior recall of information that is related to oneself (Roger, Kuiper & Kirker, 1977). In two studies, participants were given a memory test that required them to read a fictitious story about a prototypical person who is either high or low in dominance or nurturance and then to recall as much information as possible about the person. They were also asked to complete a personality test that assessed dominance and nurturance (Interpersonal Adjective Scales; Wiggins, 1995). Analyses were conducted for participants who are high in nurturance because only 17 of 80 (study 1) and 17 of 76 (study 2) participants were not high in nurturance. Results supported the self-referencing effect as participants recalled more information about someone who is similar or opposite to themselves vs. someone who is high or low in dominance.

3. Eric D. Daffinrud, Ronald V. Park II, John B. Stewart, & Thomas V. Petros: University of North Dakota

### **Reading with and without eye movements, a paradigm revisited**

Forty-eight UND students were individually administered two versions of the Nelson Denny reading test, one version on paper and one version on a computer. Rapid Serial Visual Presentation (RSVP) was set at either 300 ms per word or 500 ms per word. Students were split into "skilled" and "less skilled" readers based on their performance on the paper version of the Nelson Denny reading test. Percentile ranking scores on the paper version of the test were compared to the computer version of the comprehension section of the test. Past research has shown a facilitative effect of reading without eye movements for less skilled readers, assumedly using RSVP, reduced cognitive load. We found a significant difference across all readers on implicit versus explicit information. Our results are discussed in comparison to this model of reading.

4. Anthony Emanuele: Minnesota State University Moorhead

### **The influence of task difficulty and strength of message on math attitude change**

Research has shown that attitudes towards math have a strong impact on individuals' final grade in math courses. This has provoked research devoted to look-

ing for new ways of increasing an individual's attitude towards math. Based on the elaboration likelihood model (ELM) of persuasion, the present study looks at the influence of the task difficulty of math problems and the strength of the message on math attitude change. The study was a  $2 \times 2$  between groups factorial design (task difficulty  $\times$  strength of message). Based on the ELM, it was hypothesized that individuals in the easy math task, strong message group would show the greatest change in attitude towards math. The results did not show the predicted interaction effect for task difficulty and strength of message on attitude change for math. Additionally, no main effects were found.

5. Jennie Graff-Dolezal, Ryan Steenerson, & Cheryl Terrance: University of North Dakota

**Undermining claims of victimization: The role of gender & history of response**

Participants ( $N = 100$ ) read a police interview involving either a male or female victim of domestic abuse. Within gender conditions, the victim was portrayed as either passive (i.e., never fought back) or active (i.e., fought back). Results indicated that the gender of the victim had an impact on attributions of victim blame and responsibility for the assault. Moreover, victim gender influenced the perceived severity of the abuse, and the degree to which the victim was seen as being able to leave the relationship.

6. Kirsten Robinson and Dr. Richard Ferraro: University of North Dakota  
**The relationship between types of female athletic participation and female body image**

Increased female athletic participation calls for a greater focus on the impact of sports involvement on female body image. Research needs to look not only at the athletes, but also at the type of sport being participated in, and the similarities and differences between female athletes and nonathlete counterparts. This study looked at 53 female athletes drawn from four different sports and 55 female nonathletes. The athletes were divided into two groups: speed-focused athletes and technique-focused athletes. Participants were measured on scales of body dissatisfaction, preoccupation with weight, and self-perceptions of body type and weight. Analyses revealed that (a) speed-focused athletes and technique-focused athletes did not differ significantly in their concerns about weight and body image, and (b) nonathletes expressed more dissatisfaction with their bodies than both of the athlete comparison groups.

7. Susan Larson, Katie Richardson, and Ostin Warren: Concordia College  
**The effect of immune system activation on conditioned reinforcement**

Past research has shown that immune system activation can induce anhedonia, a decreased interest in pleasurable stimuli. Certain parallels have been made between the behavioral effects of the immune system, including anhedonia, and

the behavioral changes and anhedonia found in depressed people. To develop a better understanding of the behavioral changes induced by immune system activation and these potential parallels with depression, the present study was conducted. The effects of lipopolysaccharide (LPS) on conditioned reinforcement were examined in both a place preference and operant conditioning paradigm to see if immune system activity disrupts hedonic behavior in rats. Preliminary results indicate that LPS does not disrupt the expression of a conditioned place preference, but does disrupt lever pressing for a conditioned stimuli in the operant conditioning paradigm.

8. Laura Kitzan and F. R. Ferraro: University of North Dakota

**Effects of induced mood on cognitive processing in healthy older adults and healthy younger adults**

A total of 30 young adults and 97 older adults were randomly assigned to mood induction groups (neutral, sad). They then performed a speeded recognition memory task on sentences that were either pre-learned or unlearned, with reaction time (RT) as the dependent variable, using the Fan Effect paradigm. Older adults made proportionally more errors as recognition difficulty increased, although this effect was not apparent in the RT data. Results are discussed from the perspective of emotional processing across the lifespan.

9. Peter A. Schmutzer, Erin N. Haugen, & Amy Wenzel, Ph.D.:  
University of North Dakota

**A novel approach to coding the recall of prose passages**

Although prose passages are standard stimuli used in studies assessing explicit memory, there are few established coding schemes to measure accuracy of recall. The purpose of the present study was to develop reliable coding schemes to assess the accuracy of prose recall. Research participants read three positively valenced and three negatively valenced prose passages describing common social and evaluative situations and recalled them, as verbatim as possible, after five minutes and after one week. Recalls were coded for gist accuracy, verbatim accuracy, and the degree to which they retained the original affective tone. All coding schemes were highly reliable, with coders achieving interrater reliabilities of .83 for the gist coding scheme, .96 for the verbatim recall coding scheme, and .92 for the affective tone coding scheme. The gist and verbatim recall coding schemes reliably differentiated between socially anxious and nonanxious individuals. It is suggested that this coding system will be useful to adopt in future studies examining prose recall of clinically relevant material in individuals with psychopathology.

10. Nova Griffith, J. D. McDonald, Alan Storey, Laiel Baker, Casey McDougall, Ben Poitra, Jennifer Old Rock, Alison Baker, Angelique Gillis, Joan Hogan-Fitzpatrick: University of North Dakota

### **The relationship between biculturalism and stress among Northern Plains American Indian college students**

This study examined the relationship between biculturalism and stress in a sample of 60 Northern Plains American Indian college students. Subjects completed the Northern Plains Biculturalism Inventory (NPBI) and the Hassles Scales. The subscales of the NPBI were used as predictor variables on the total score of the Hassles scales. It was hypothesized that higher combined scores on the NPBI subscales would predict lower Hassles Scale scores based on the Orthogonal Theory. Demographics, multiple regression analysis, and one-way Analysis of Variance were performed. Results suggested those demonstrating bicultural competence did not score significantly lower than marginal peers. Suggestions for further research are discussed.

11. Janel Palbicki, Emily I. L. Arthur, & Jeffery N. Weatherly: University of North Dakota

#### **Induction and anticipation: The influence of motivation**

Previous research has shown that rats' rates of lever pressing for liquid-sucrose reinforcement are higher when food-pellet reinforcers will soon be available versus when they will not be available. This increase in responding may occur because the rats are "anticipating" the food pellets. If this were indeed the case, then it should be possible to alter this induction effect by altering the subjects' motivation for the food pellets. We had rats respond at 75%, 85%, or 95% of their free-feeding body weights in different conditions. Results showed that upcoming food pellets produced induction at each body weight, but that the size of the induction varied directly with level of deprivation. Thus, the results are consistent with the idea that "anticipation" plays a role in induction.

Invited Speaker

Saturday, October 27, 2001

3:00–4:00 p.m., Lecture Bowl

Dr. Amy Wenzel, University of North Dakota