

Undergraduate Honors Projects – 2003-2004

Lauren A. Anas

The Influences of Early Adversity

Advisors: George M. Slavich and Scott M. Monroe, PhD

Recent research suggests a strong link between depression in adulthood and exposure to undesirable events and difficulties during childhood. In particular, parental separation as well as physical and sexual abuse appear to negatively affect the adjustment of the children, placing them at higher risk to experience recurrent episodes of depression in adulthood. To test the hypothesis that individuals who are exposed to parental separation and/or abuse are at increased risk to experience recurrent depression compared to individuals who are not exposed to early adversity, the Life Events and Difficulties Schedule (LEDS; Brown & Harris, 1978) was administered to 84 depressed adults. Participants were asked a number of questions regarding early adversity. Information obtained from the interviews including whom the individual was separated from in childhood, reasons for the separation, the nature of the subject-parent relationship, and whether or not they experienced physical and/or sexual abuse as a child. Depression history was subsequently examined for each of the adult participants. Results from the study suggest that children who experienced a separation from a parent during childhood underwent a major transition during the period and experienced more than one depressive episode during their adulthood. Subjects that experienced bad relationships with their fathers during childhood were more likely to have more than one depressive episode during adulthood.

Taylor Bryant

Influence of Reference Group on Body Image Perception

Advisor: Myron Rothbart, PhD

This study examined how comparison level and reference group influences women's satisfaction with personal body image. Participants examined 14 photographs of either thin or heavy women. Photographs were either European or African American women. Four independent sets of photographs were created, corresponding to the four experimental between-subject conditions: white/thin, white/heavy, black/thin, and black/heavy. Participants indicated satisfaction with their own body shape before and after observing the photographs. It was predicted that women would be less satisfied with their own body after observing thin than heavy women, and this effect will be strongest when viewing their own racial group. No significant findings supported the hypotheses, although there was strong correlation between ponderosity and dissatisfaction.

Stephanie Carpenter

Mood and the Generalization of Affect: A Test of Emotional Specificity

Advisors: Ellen M. Peters

This study examined the impact of environmental factors on the generalization of affect using 225 university undergraduates. Following a mood manipulation, subjects in the control condition completed a numerical

estimations task with sad and angering scenarios, cognitive load subjects listened to a musical composition while completing the estimations task, and reasons analysis subjects analyzed and listed reasons for making their estimates. We predicted that emotional specificity (angry or sad) would be greatest in the control condition, reduced under reasons analysis, and that affect under cognitive load would either generalize to valence (negative mood), or would display greater emotional specificity. Current results indicate that specificity is reversed under Reasons Analysis and Cognitive Load induces greater specificity for sad mood, suggesting an automatic emotional process.

Lauren Corder

Underlying Mechanisms of Auditory Processing During Stress: Relationship of early muscle response and mid-latency ERP component

Advisor: Dr. Patricia White

The decline in amplitude of the P50 component of the auditory event-related potential in a paired click paradigm acts as indirect evidence of a pre-attentional gating deficiency. White and Yee (1997) found that normal P50 suppression was disrupted when non psychiatric subjects simultaneously performed an oral stressor. Subsequent investigation of 10 experimental modifications (Yee and White, 2001) showed that extreme facial muscle activity and silent stress both disrupt normal P50 suppression. In this study, the same 10 paradigms used by Yee and White were analyzed with regard to an earlier muscular component associated with auditory orienting, the post-auricular reflex (PAR) and component which follows P50 in auditory processing and is related to selective attention, the N100 component. Analysis of earlier and later components during auditory processing was conducted to investigate and clarify the mechanisms that may underlie the disruption of P50 suppression. In this work, both PAR and N100 also showed amplitude suppression to the second stimulus of the click pair. PAR was shown to alter in amplitude but not suppression ratio during facial muscle activation, and PAR also did not show suppression disruption during the stressor. In contrast, the N100 suppression showed similar effects of stress as the P50 component. Also, P50 and N100 ratios correlated positively during the stressor but were not associated during a passive baseline. Thus, results from this study suggest that response suppression to paired stimuli may occur as early as the orienting response (PAR) but stressor effects appear to occur later during auditory processing.

Sarah Dailey

Individual Definitions of 'Race' for the Self

Advisor: Chuck Tate

This study examined how people define 'race' in reference to the self and whether these definitions matter for various self-relevant social judgments. Study 1 examined the structure of definitions of 'race' for the self. Two theory types were found: phenotype (physical appearance) and ethnicity (some combination of values, behaviors, and societal classification). Study 2 examined how theory type relates to how people want to be perceived by others when 'race' is an issue. Ethnicity theorists found it more acceptable for 'race' to be mentioned in a conversation than did phenotype theorists. Study 3 examined the relationship to perceptions of other in-group members, and ethnicity theorists rated that it negatively affects them personally when a person does not act consistent with their 'race' more than did phenotype theorists.

Corrie A. Doyle

The Physiological Correlates of Life Stress and Depression

Advisors: George M. Slavich & Dr. Scott Monroe

Prominent theories have proposed a positive correlation between life stress and major depressive disorder (MDD). These events generally involve highly aversive experiences, concerning serious threats to core relationships. This investigation addresses the life stress and its effects on baseline and emotionally provoked physiology in MDD subjects. Behavioral measures to assess depression and severity of life events were administered, as well as physiological measurements known to be directly connected to innervations involved with the sympathetic nervous system: a key player in the stress response. The findings suggested MDD subjects who have experienced life stress exhibited physiological correlates consistent with a more intense and elongated stress response as compared to their no-stress counterparts. Differences in physiological correlates like these may reflect a core connection between objective and subjective variables in this disorder.

Daniel J. Friend

The role of attachment and dissociation in the intergenerational transmission of abuse

Advisors: Dr. Jennifer Freyd

The goal of this project was to examine individual differences among perpetrators. Specifically, the relationship between attachment and dissociation was examined in association with abuse history and perpetration of abusive acts. The hypothesis was as follows: those with abusive history would be more likely to become perpetrators if classified as insecurely attached, those abused subjects who were classified as non perpetrators and securely attached would show higher DES scores, in accordance with Betrayal Trauma Theory. Data was collected using self-report measures from 233 undergraduates. Caution should be used in interpreting these results, since a limited number of subject reported being perpetrators. Limitation and future research implications are also discussed.

Naruka Hirayama

Gender Differences in Social Support from Parents and Peers and Depressive Symptoms among Middle Adolescents

Advisors: Dr. Thomas J. Dishion

Adolescence is the time when a gender difference in depression first appears. However, no clear evidence exists for increased depression in adolescent girls. The purpose of this study is to combine sociological and psychological approaches to understanding middle-adolescent depression and to examine the question of why more adolescent girls experience depression than do adolescent boys in terms of a gender-differential socialization. The sample consisted of 527 high school students in Portland, Oregon, and they were administered questionnaires containing scales measuring depression, social skills, and parents' parenting skills. Middle adolescent depression was not directly related to family conditions and social support from family, but peer relationships played a significant role for both genders. The primary findings in this study were that girl's depression was strongly correlated with type of peers although they tend to have prosocial peers; Girls who have deviant peers, especially, develop depressive symptoms. In contrast, boy's depression was not related to the type of peers although they have more deviant peers, and social preference reduced their depression. Those results revealed that adolescent boys and girls have different ways of making socialization.

Angela Rose Kelley

Sensory Gating Phenomenology in Relation to Mood and Quality and Duration of Sleep

Advisor: Dr. Patsy White

Poor sensory gating, or filtering of sensory input, has been observed in several clinical populations such as schizophrenia and mania (Freedman et al., 1987). Subsequent research has shown a relationship between anxiety or stress and sensory gating in schizophrenia (Yee, Nuechterlein, Morris and White, 1998) and in non-clinical populations (White & Yee, 1997). Stressful disruption of sensory gating has been attributed to effects of arousal. Clinical populations with impaired gating also possess disturbed sleep, which has been demonstrated to alter arousal independent of pathology. Thus, clinical pathology may directly influence gating, or previously observed poor gating in clinical populations may be a secondary effect stemming from disrupted sleep. Thus, these studies assessed the relationship of sensory gating phenomenology to disturbed sleep. In Study 1, poor sleepers (n=310) were found to have increased self reported disruption of sensory gating phenomenology. When depression was co-varied in this analysis, poor sleepers still showed a trend for self-reported disruption in subscales indexing distractibility and perceptual modulation. In Study 2, intended and unintended sleep loss, measured crudely, were not shown to cause differential disruption of sensory gating. In this study, typical sleep duration was found to vary with the stress/fatigue subscale of the Sensory Gating Inventory across participants (n=152). Among all males, but not females, total hours of sleep negatively correlated with stress-fatigue vulnerability and among males unintentionally deprived of sleep, sleep duration showed a negative correlation with perceptual modulation. Overall, disrupted sleep appears to impair at least some sensory gating phenomenology, with potentially greater disruption in males than in females.

Molly Kessner

Evoked Heart Rate during Facial Affect Recognition in Schizotypy and Social Phobia

Advisor: Dr. Patsy White

Research has shown deficits in affect recognition in schizophrenia and attentional and memory biases to angry faces in social phobia. To assess the influence of social anxiety on arousal and physiological response during processing of facial emotion, schizotypal (SZ;n= 11), socially phobic (SP;n=11) and normal control subjects (CNT;n=12) were exposed to startle probes, at 120 ms and 3800ms, while viewing facial images. Heart-rate (HR) change while processing provided physiological measure of parasympathetic (HR deceleration) and sympathetic regulation (HR acceleration) while processing affective stimuli. The tri-phasic HR curve was derived from measuring changes in inter-beat interval duration, yielding measurement of cardiac acceleration and deceleration to affective stimuli. In this study, subjects viewed the same angry, happy and neutral images during 5 tasks in which attention was manipulated toward or away from specific emotional content, with HR acceleration and deceleration assessed for the 3800 ms probe. SZ show enhanced orienting and reduced arousal with affective targets, but in the absence of attention directed toward emotion, show enhanced orienting only for angry images. SP display specific attentional biases toward non-target angry images and reduced affective arousal after the non-target angry image offset, but also showed a an unpredicted reduction in affective arousal during viewing angry target images, with similar responding to happy and neutral images as controls. Taken together, these results suggest anomalies specific to each clinical group when processing angry images and support the need for attentional manipulation during processing of affective images to capture the full range of physiological response.

Andy Kohnen

Feature-matching and self-other comparisons

Advisor: Dr. Sara Hodges

The current study explores the application of feature-cancellation and direction of comparison effects to self-other comparisons. College participants (N=90) made a comparison either between their own study habits and a fabricated comparison-other or between a previous participant's study habits and that previous participant's corresponding comparison-other. They did so on the basis of a checklist of 27 bad study-habits. Participants making a comparison involving a high degree of overlapping features tended to rate both people in the comparison very similarly. More interestingly, participants tended to rate the overall study habits of the other as significantly worse than those of the self when there was a low number of overlapping features, presumably because of direction of comparison effects. Finally, participants comparing two others with a low degree of overlap between their habits tended to rate the referent as worse than the target of comparison.

Nathan D. McVeigh

Influence of Retrieval-Induced Forgetting during Second Language Acquisition

Advisors: Benjamin J. Levy and Dr. Michael C. Anderson

This study examined whether different verbal labels for a visual stimulus compete between languages, and, if so, does this lexical competition lead to retrieval-induced forgetting during second language acquisition. The participants were 32 undergraduates who had taken at least one year of college-level Spanish. Participants named objects on a computer screen in either English (e.g., cow) or Spanish (e.g., vaca), and then completed an independent probe rhyming test (e.g., bough _____). The results support the hypothesis that retrieving a word from a secondary language to name a picture causes the phonetic label from the primary language to become less accessible. Such findings suggest that retrieval-induced forgetting aids in second language acquisition by reducing lexical competition from the primary language.

Kimberly L. Merrill

Chronic Life Stress and Major Depression

Advisors: George M. Slavich, Leandro D. Torres, & Dr. Scott M. Monroe

The literature on life stress and depression has identified at least two types of stress that differ temporally from each other: relatively-acute stressful life events and more-chronic ongoing difficulties (Monroe & Hadjiyannakis, 2002). Although a number of studies have investigated the role that relatively-acute stressful events play in the onset (Mazure, 1998; Kessler, 1997), course (Hammen et al., 1986; Lloyd et al., 1981), and symptom severity (e.g., Dolan et al., 1985; Hammen et al., 1992) of major depression, few studies have examined the role that ongoing difficulties play in this disorder. To address this void in the literature, 85 depressed adults were administered the Life Events and Difficulties Schedule (LEDS; Brown & Harris, 1978) and the Beck Depression Inventory II (Beck et al., 1988,1987). The LEDS was used to assess the severity and nature of participants' ongoing difficulties occurring one year prior to their depressive onset, whereas the BDI was used to assess depressive symptoms. Researchers then examined the domain in which the difficulties occurred and the frequency of experiencing difficulties across the entire sample, as well as, within each of the sexes. Descriptive analyses were compiled to further elucidate the impact ongoing stressors have on depression.

Dustin Selman

Investigations in Spatial Perception using Geometric Visual Illusions

Advisor: Dr. Paul Dassonville

The time course of the Delboeuf circles illusion was probed by flashing targets at different times within an alternating small and large contextual figure. Participants (college undergraduates) adjusted the target's sizes to match static comparison figures. The purpose was to examine the mechanisms of geometric visual illusions by examining the onset of assimilative and contrastive components within the Delboeuf illusion. It is hypothesized that the illusion is a distortion of perceived space (within which the target is embedded) rather than a distortion of the apparent size of the target itself. This hypothesis is supported by results showing non-instantaneous but gradual illusion onset, where the context must be present for some length of time prior to the probe for maximum effect.

Aiko Takahashi

Temperament and Involved Parenting: Predicting Foster Children's Externalizing Behaviors

Advisors: Katherine C. Pears & Dr. Louis J. Moses

This study examined externalizing behaviors of preschool-aged foster children (60 boys and 53 girls) 6 months after a new placement. Parental involvement, child temperament, and treatment condition were tested as the predictors of externalizing behaviors. The only predictor was treatment condition, whether or not both parents and children had behavioral trainings. The treatment group showed higher levels of externalizing behaviors compared to the control group. An interaction between temperament and parenting showed high levels of externalizing behaviors in children who had difficult temperament with uninvolved parenting and those who had easy temperament and involve parenting. It was concluded that foster children may become reactive to the treatment within the first 6 months and optimal behavioral outcomes could be expected by such "Goodness of Fit" between child temperament and parenting.

Catherine Tenedios

Adult attachment and traumatic experiences

Advisor: Dr. Jennifer Freyd

In the past infants have been the main focus in understanding attachment, but recently there has been a growing interest in studying attachment in adults. The purpose of this present study is to evaluate the five most prominent adult attachment scales; the Adult Attachment Scale (Collins & Reed, 1990), Bell Object Relations Inventory, (Bell et al, 1986), Inventory of Parent and Peer Attachment (Armsden & Greenberg, 1987), Parental Attachment Questionnaire (Kenny, 1987), and Parental Bonding Instrument (Parker, Tupling & Brown, 1979). Another aim is to explore the relations between traumatic exposure, dissociation, alexythymia and attachment. Undergraduate students at the University of Oregon completed a questionnaire that includes items from the five prominent adult attachment measures, along with traumatic exposure, dissociation and alexythymia surveys to assess any possible relationships.

Dan Turano

The Effect of Marital Instability and Parental Support on Children's Behavior and Peer Group Choice

Advisors: John Light & Dr. Tom Dishion

Strong social networks have been discussed as a large contributing factor for positive outcomes during acute or chronically stressful events. An event that has become more common in society, and yet has received little direct research, is how marital instability and parental support, effects children. The purpose of this study was to create a mediational model that would accurately depict what factors lead children to perform antisocial behavior and spend time with deviant peers. It was purposed that marital instability and low parental monitoring would lead children to form stronger bonds with deviant peers who would promote antisocial behavior. The data used for the study was acquired through project Alliance, which is a sample of 373 sixth grade children who were selected from teacher report for having abnormal behavior. Through linear regression many factors were identified that lead children toward deviant behavior and social networks. The factors most salient across gender were marital status, reports of family conflict, and the child's report of parental monitoring. There were some limitations to this study due to the nature of how the data was acquired. Nevertheless, these finding are important because they focus on an ever increasing incident in child development that, if critically studied, may help society understand the ramifications of marital instability and parental support on children.

Ginny Williams

Juror's Decision Making based on Story Model for Criminal Trials

Advisor: Dr. Robert Mauro

Story construction theories such as the constructionist, explanation based, and story model help to predict what people are concluding from the stories they hear. These models are useful for exploring juror's decision making using ideas like plot, character development, how well facts are expressed and consistency across the story. Up to this point research has only predicted decision outcomes. By looking at stories that vary in their facts (poor fitting story) and coherence (poorly written story) the researchers were able to determine that the good story with fitting facts had more support for a not guilty verdict in an assault case compared to the well written story that does not fit the facts. Further exploration of story models for juror decision making will help to determine the importance of story construction, which could help in regard to the way lawyers develop their arguments.

Trey Gregory Willison

Effects of Parental Relationship Separations On Children: Increases In Adolescent Antisocial Behavior's

Advisor: Dr. Tom Dishion

A relationship between teenage antisocial behavior and early childhood parental relationship separations has been recognized in many studies. In the following, a total of three hypothesizes were tested. First, it was hypothesized that children who were younger at the time of their parent's relationship separation would display more teenage antisocial behavior than those who were older. Results indicated no significant effect for children's age at the time of a parental separation. The second hypothesis was that the total number of parental relationship separations would be predictive of teenage antisocial behavior. Results indicated that the numbers of parental relationship separations a child experiences are significantly correlated with early teenage antisocial behavior. Lastly, it was hypothesized that boys would show significantly more antisocial behaviors than girls. Results indicate there are no significant gender effects in predicting antisocial behavior. In sum, this study found that each parental relationship separation a child goes through regardless of their age or gender increases the amount of antisocial behavior displayed at age twelve.

Ista Zahn

Stereotype threat, women's math test performance, and primed ideas about what the test measures

Advisor: Chuck Tate

Stereotype threat theory predicts that salient negative stereotypes about women's mathematical abilities will impair females' math test performance. We hypothesized that priming females with information suggesting that math tests measure learned skills (as opposed to innate ability) would reduce the impact of negative stereotypes on their test performance. Prior to taking a math test, 69 University of Oregon undergraduates were primed with information suggesting either that math tests measure learned skills or innate ability. Females who received the ability prime performed better in a reduced threat condition, while females who received the skill prime performed better when the threat was not reduced. This result suggests that salient negative stereotypes may not impair performance when skill is emphasized.

Ting Ting Zhou

Investigation in the Activation Level of Critical Lures in the DRM Paradigm

Advisors: Ben Levy & Dr. Mike Anderson

The DRM paradigm demonstrates that people can misremember words that were not presented (Roediger & McDermott, 1995). Previous results have shown false recognition rates of critical lures (CLs) to increase, and then decrease, with study repetition (Seamon et al., 2003). Various strategies, such as source monitoring and recollective rejection may cause this reduction in false alarms. The current experiment uses independent probes (Anderson & Spellman, 1995) to examine the activation level of CLs with repetition. Forty-eight undergraduate participants studied word lists 1, 5, or 10 times, and their memory was tested for the words using recognition and independent probes. Results replicate the decrease in false recognition rate, despite a relatively constant activation level of the critical lures.