

Undergraduate Honors Projects – 2002-2003

Kimberly A. Babcock

Dissociation & Home Environment: Mediators of Childhood Social Competence

Advisor: Dr. Jennifer Freyd

The focus of this research is the development of a theoretical model of childhood social competence. Specifically, the hypotheses of this study were 1) that maltreated children should display lower levels of social competence than non-maltreated children; 2) that non-maltreated dissociative children should display lower levels of social competence than non-maltreated non-dissociative children; and 3) that maltreated dissociative children display higher levels of social competence than maltreated non-dissociative children. The participant in the study was one first grade teacher, who provided ratings for six first grade children, four male and two female. Data collection consisted of questionnaire data from the Child Dissociative Checklist, the School Social Behavior Scales, and a maltreatment symptoms checklist. The hypotheses are cautiously supported by the data, as the sample size is very small. Discussion focuses on the implication of this research and the need for additional study.

Justin Birge

The Phenomenology of Sensory Gating Associates Predictably with Measures of Schizotypal Symptoms

Advisor: Dr. Patricia M. White

Physiological measures of sensory gating have been demonstrated to be reduced in schizophrenics and their first-degree relatives, relative to controls. It has been hypothesized that these impaired indices of sensory gating relate to symptoms of cognitive fragmentation and sensory overload observed in schizophrenics, although this has not been demonstrated. To assess the relationship of stimulus overload and schizotypal symptoms in the general population, the Sensory Gating Index (SGI) and the Schizotypal Personality Questionnaire (SPQ) were administered to 491 undergraduates. Because previous research has shown relationships between schizotypal symptoms, scholastic performance, and smoking rate, this study included self-reported smoking rate and grade-point average (GPA). As predicted, sensory gating (SGI) positively correlated with schizotypal symptoms (SPQ). Similarly, the predicted positive correlation between smoking and sensory gating (SGI) was demonstrated to be weak although statistically significant. In assessing whether SGI scores were elevated in smokers, males show the predicted pattern of greater sensory gating impairment in individuals who smoke, while females showed the reverse pattern. Self-reported GPA was found to correlate negatively with the SGI and SPQ but only in schizotypals. Overall, these results support the hypothesis that the phenomenology of sensory gating is associated predictably with measures of schizotypal symptoms as well as behavioral indices such as smoking and scholastic performance. Thus, this study lays the groundwork for assessing relationships between the sensations reported in the SGI and physiological measures of gating.

Siong-Guan Chng

Advisor: George M. Slavich

The Effects of Confidant Social Support on the Severity and Recurrence of Major Depression

Social support is considered to be a critical psychosocial factor in the buffering of clinical depression in individuals diagnosed with depression. Previous studies had shown that individuals with confidants as social support were less likely to develop depression following very stressful life events (e.g., death of a spouse) than those without confidant support (Murphy, 1982). The present study investigated the effects of confidant social support on the severity and recurrence of major depression. Two predictions were made. First, individuals who had their significant other as a confidant at Time 1 are predicted to have less severe depression at depression onset as measured by the BDI compared to those people whose significant other was not a confidant at Time 1. And second, individuals who had their significant other as a confidant were predicted to be more likely to recover from depression at Time 2 (six months after onset) as measured by the BDI compared to those people whose significant other was not their confidant.

Clinton Davis-Stober

Emergent Leadership in Focus Group Settings

Advisor: Dr. Holly Arrow

Emergent leadership has often been defined as the process through which a group member is granted leadership status in a previously leaderless group. The focus of this study is the behavioral process leading towards the emergence of a group leader, as well as a leader's impact on the group's overall performance. Focus groups of five members were recruited and given a discussion task involving intra-group discussion and consensus. Nine separate behaviors were recorded and regressed against the emergent leadership status of small group members. A factor analysis was then performed to identify possible common behavior categories. Data analysis is pending.

Eric Edmondson

Understanding the Lay Conception of Human Values and Goals

Advisor: Dr. Bertram Malle

The contemporary social-psychological literature contains surprisingly little research on human values. Moreover, definitions of the values concept are mostly the subjective opinion of the researcher and do not necessarily reflect the lay person's understanding. The purpose of this study is to document how lay people conceptualize values, and how they differentiate them from phenomena such as goals, principles, convictions, and attitudes. Data collected through computer-based questionnaires and a judgment task will provide the information needed to gather an intersubjective concept of values. Preliminary findings show that values, goals, principles, convictions, and attitudes are distinctly different in the lay person's mind. Additional analysis aim at identifying the specific features that make values distinct and give them their psychological and social functions.

Jason A. Fair

Maintaining Representations in Visual Working Memory

Advisor: Dr. Edward K. Vogel

Visual working memory facilitates the online storage and manipulation of visual information. Here, we recorded ERPs from subjects while they performed a visual WM task, in which they were presented a bilateral array of colored squares (4 in each hemifield) and were asked to remember the items in only one hemifield. Memory for those squares was tested two seconds later with the presentation of a test array that was either identical to the

memory array or differed by one color. Approximately 200 ms following the onset of the memory array we observed a posterior slow negative wave over the hemisphere that was contralateral to the memorized hemifield in the array. This contralateral negativity persisted throughout the two-second blank delay period until the onset of the test array and appears to reflect the maintenance of these items in memory. In a control experiment we demonstrated that these results were due to memory maintenance and not spatial attention.

Christoffer Hansen

An Investigation into the use of Patriotic Symbols and Imagery in Advertising in Television Commercials airing after 9/11/2001

Advisor: Dr. Sara Hodges

This study investigated participants' reactions to advertising that used patriotism as a means of persuasion. The purpose of this study was to see whether the ads were stimulating patriotism beyond the initial message of 'buy our product', and to also create a reasonable intervention that prompts people to be responsible consumers of mainstream media. Pre-testing of subjects was required to obtain participants' initial level of patriotic attitudes. There were two experimental manipulations that acted as an intervention ('re-think' and 'exploit' conditions) and a control condition. After pre-testing, participants were recruited to watch nine recorded television commercials and fill out a post-test that was identical to the pre-test. Statistical analysis indicated a significant main-effect in which participants became less patriotic from pretest to posttest. However, this was not a result of the experimental manipulations.

Maureen A. Hansen

Influence of Gender Course on Attitudes about Gender

Advisor: Dr. Jennifer J. Freyd

This study examines whether a college course can affect students' attitudes about gender. Effects of one University of Oregon general education course, Psychology of Gender, on students were measured using an anonymous survey assessing hostile and benevolent sexism completed before and after the course. A significant main effect of the course on overall sexism scores was found, with the mean sexism score after the course being significantly lower than before the course. A marginally significant ($p = .075$) result was that hostile sexism scores decreased more than benevolent sexism scores. Although there was not a statistically significant three way-interaction, a trend in the data suggests that the hostile versus benevolent differences are due to the males, who show no evidence of decreasing benevolent sexism during the course although their hostile sexism scores drop, and females show comparable decreases in both. There is also a trend in the data suggesting that younger students' scores decreased more than those of older students. This study had some limitations, particularly due to the anonymous nature of the survey instrument. Nonetheless, the results provide insight warranting continued research to promote effectively designed curriculum to increase understanding regarding gender issues.

Catharine Hochhalter

Temperament, Relational Styles, and Depressed Mood in Early Adolescence

Advisor: Dr. Mary K. Rothbart

During adolescence, girls show an increase in depression and affiliative need (Cyranowski, Frank, Young, & Shear, 2000). Work by Ellis (2002) indicates that levels of affiliation and depressive mood in adolescent girls are highly correlated. The current study examined whether affiliation might be linked to depressed mood through a socially dependent personality style. The possibility that correlations between personality style and depressed mood may be mediated by temperament variables was also investigated. A sample of 56 adolescent females, between the ages of 11 and 13 years, completed three questionnaires: (1) The Early Adolescent Temperament Questionnaire-Revised (Ellis & Rothbart, in preparation), (2) The Personality Style Inventory-Revised (Robins, Ladd, Welkowitz, Blaney, Diaz, & Kutcher, 1994), and (3) The Body Changes Questionnaire (Carskadon & Acebo, 1993). Significant correlations were found between depressive mood and social dependency, autonomy, shyness, and frustration. A significant correlation between affiliation and depressive mood was not found, and, thus, the possible mediating effects of social dependency could not be examined. However, further analyses revealed that shyness and frustration appear to be mediating the relationship between social dependency and depressive mood.

Kurstin Hollenbeck

Action Parsing: A Study of the Role of Linguistic Labeling in the Segmentation of Action Streams

Advisor: Dr. Dare Baldwin

Past research studies have shown that both infants and adults use statistical information to segment continuous streams of language. This line of research extends that finding to segmentation of continuous streams of human action. The present study investigates the role of verbal labeling in action segmentation by adults. Subjects in the control group (n= 14) were shown one five minute long, silent video of a person performing a continuous stream of movement. The movement consisted of twelve individual actions, consistently occurring in four permutations of three, with the permutations repeated in random order throughout the five minutes. Subjects in the experimental group (n= 13) watched the same video, but with nonsense labels provided verbally for each of the four permutations every time they occurred. Subjects were then given a recognition test to assess whether they could distinguish between a permutation they had viewed repeatedly, and another group of three actions (each of which had occurred individually, but not in the order shown). Any difference between the groups' performances on the recognition task would indicate the effect of labeling on adults' ability to segment novel action. Data have not yet been analyzed.

David Huh

Voluntary vs. Involuntary Immigration in the Acculturation of Asian Pacific Americans

Advisor: Dr. Gordon C. Nagayama Hall

Asian and Pacific Islanders migrate to the United States primarily for educational and economic opportunities, but also involuntary due to the misfortune of war and conflict in the native country. The rapid and involuntary culture shock faced by refugees and other involuntary immigrants would be expected to generate a qualitatively different acculturative experience than families who immigrated under less stressful conditions. This study is one of the first to empirically examine the differences with respect to the circumstances of immigration. It was hypothesized that students whose families came to the U.S. due to circumstances beyond control would favor protection of their ethnic identity and have greater degrees of family conflict. Students of Asian or Pacific Islander descent were given a self-report questionnaire containing demographic, acculturation, family connectedness, and family conflict measures. In contrast with the original hypotheses, Asian/Pacific Islanders from involuntary migration backgrounds were actually more acculturated than their peers. Furthermore, those from involuntary migration backgrounds had lower degrees of family conflict. The findings suggest that greater acculturation may be protective in families who endured a high level of migration stress, which leads to a lesser degree of family conflict.

Akiko Ikkai

The Role of Muscarinic Receptors in Covert Orienting in Rats

Advisor: Dr. Richard Marrocco

The basal forebrain (BF) is one of the major sites of cholinergic projection to the cortex and limbic system, and there is evidence for its importance in spatial attention. In the current study, the role of muscarinic acetylcholine receptors in BF on reflexive visuospatial attention was investigated. Four Long-Evans rats were trained to perform CTD task; rats were trained to fixate at the central points and respond to the stimuli presented in the peripheral visual field. Reaction times (RT) to orient toward targets were measured and analyzed. The validity effect was defined as the difference in the mean RTs between valid (cue correctly forecasts the target location) and invalid (cue incorrectly forecasts the target location), and the alerting effect was defined as the difference in the mean RTs between double (both cues appear bilaterally, one target presentation) and no-cue (no cue presentation, one target presentation). Thirty-two gauge cannulae were implanted bilaterally into the BF. Either saline, oxotremorine (OXO) low dose ($0.3\mu\text{g}/\text{side}$) or OXO high dose ($3.0\mu\text{g}/\text{side}$) was infused 10 minutes prior to the CTD task. Contrary to our hypotheses, there was no significant effect of OXO on the overall validity or alerting effect. However, the analysis of cue type and cue-to-target interval (CTI) revealed that OXO high dose significantly slowed double cue RT at 700 msec CTI, which resulted in the smaller validity effect in that particular cue*CTI combination. There was a significant hemispheric effect. Rats responded faster to the targets presented in their right visual fields in any cue/drug combination. Cannuli placement confirmation with MRI is still in progress.

Kyoung Rae Jung

Emotional Arousal and Lexical Semantic Priming: A Hi-Density Event-Related Potential(ERP) study

Advisor: Dr. Don Tucker & Gwen Frishkoff

The present study used ERP and behavioral measures to examine effects of emotional arousal on semantic processing as subjects made lexical decisions to words (“targets”) flashed briefly on a computer screen. Targets were preceded by single words (“primes”) that were either closely related, remotely related, or unrelated (“semantic distance”), or by a neutral string of hash marks (#####). Participants were divided high and low Positive Affect (PA) and Negative Affect (NA) groups, according to their scores on the Positive and Negative Affect Scale (PANAS). Based on a previous study from our laboratory, we hypothesized that two ERP components that are sensitive to semantic priming, a medial frontal component (MFN), peaking around 300ms after target onset, and a later, more posterior component (P300/N400), would show differences only as a function of NA, reflecting the influence of negative affect on arousal and attention in semantic priming. As predicted, semantic effects were observed in both the behavioral measures (accuracy and reaction time) and in both the MFN and P300/N400 components. The difference between unrelated and neutral conditions on both measures suggested an influence of suppression, as well as facilitation. Further, the high trait NA group displayed a greater MFN than the low NA group, independently of the semantic distance. Results are discussed in the context of prior theories about emotional effects on cognitive processing, and possible implications for neuropsychological theories of anxiety.

Asako Kanazawa

Cultural Differences in Dysfunctional Attitudes and Life Events in Depression

Advisor: George M. Slavich

Life stress has been found to influence the onset and maintenance of major depression when interacting with an individual’s cognitive vulnerability (Beck, 1987; Monroe & Simons, 1991). However, few studies have examined the role that life stress and cultural specific dysfunctional attitudes play in the course of depression. The present study addressed this shortcoming in the literature by investigating whether a match between ethnicity and congruent stressful life events prior to depression onset predicts the dysfunctional attitudes and depressive symptoms in a sample of clinically depressed adults. 30 Caucasian Americans and 9 Asian Americans were examined at two time

points. Stressful life events occurring prior to depression onset were retrospectively assessed at Time 1, and dysfunctional attitudes and depressive symptoms were assessed at both Time 1 and Time 2 (6 months after onset). The results did not support the hypothesis. However, interestingly, only Asian Americans who experienced stressful life events in the achievement-domain, significantly increased their depressive symptoms from Time 1 to Time 2.

Ayaka Kawakami

Ethnicity and the Measure of Schizotypal Personality Disorder

Advisor: Patricia M. White Ph.D.

Ethnic variability in the self-rating measures of mental disorder has been increasingly interesting because such measures usually contain questions regarding personal beliefs or behaviors, which may vary by ethnicity or culture. Data from over 6000 undergraduates from Los Angeles were classified into 17 cultural groupings and compared on a self-report measure of schizotypal personality disorder, the SPQ-B (the Schizotypal Personality Questionnaire; Raine and Benishay, 1995). Small but significant ethnic group differences and within-group variability differences were found. Although group differences in total scores were small, a significant number of individuals are diagnosed differently by using threshold scores from the general population versus ethnically-determined threshold scores for schizotypy. Also, these data reveal a higher prevalence of smokers among schizotypals, a finding widely reported for schizophrenia populations. Using ethnically-derived thresholds, schizotypal male but not females are shown to smoke more than non-schizotypals, but this interaction is only a trend using the general population threshold for schizotypy. Interestingly, this pattern of increased smoking among schizotypals occurs only in males in American-born respondents but among both genders in foreign-born respondents. Significant gender by ethnicity interactions also were demonstrated on the scores of the SPQ-B. Gender differences have been considered a potentially biological aspect of schizophrenia spectrum disorders, but among schizotypals, this data suggests cultural as well as biological influences for patterns of gender response and behavioral associations with schizotypy.

Halina Kowalski

Diathesis-Stress Domain Match: Testing Differential Predictions on Depression at Time 1 and Time 2

Advisor: George Slavich

The congruency hypothesis proposed by Beck (1967, 1987, & 1989) and his colleagues (Clark, Beck, & Alford, 1999) posits that negative cognitive patterns increase people's vulnerability to depression when they experience negative life events in "congruent" or highly valued domains. Previous research testing this hypothesis, however, has produced mixed results. Whereas some researches have found statistical interactions between interpersonal vulnerability and retrospective reports of negative life events (Clark et al., 1992; Robins, 1990; Robins & Block, 1988; Rude & Burnham, 1993), others have not (Lahey & Ross, 1994; Morgrain & Zuroff, 1994; Robin, 1990). The present study addressed these two differential predictions by administering the Life Events and Difficulties Schedule (Brown & Harris, 1978) and the Dysfunctional Attitudes Scale (Weissman & Beck, 1978) to 32 clinically-depressed adults. Support for the formulation that diathesis-stress matches predict severity of depression was found using a repeated measures ANOVA. Specifically, individuals experiencing a match were significantly more depressed than their no-match counterparts both at depression onset (Time 1) and six months after depression onset (Time 2), $F(1,30) = 5.97, p = 0.021$.

Mary Larson

Blame and Praise: Does the Relationship to the Actor Matter

Advisor: Gayle Pearce

The present study explores two hypotheses: (1) people will alter their blameworthiness and praiseworthiness assessments depending on their level of intimacy to the transgressor, and (2) any differences due to intimacy in blameworthiness and praiseworthiness assessments will be mediated by differences in controllability, responsibility, and intentionality to the act. The present study had participants assess the degree of blameworthiness and praiseworthiness for three different perpetrators: a brother who is ten years older than the participant, a close male friend, and an acquaintance. Results indicate that participants differed only in the way that they praised the three targets. Overall, brothers received stronger praiseworthiness assessments than friends. Brothers also received stronger praiseworthiness assessments for moderately positive acts than acquaintances. However, no differences occurred between the targets in terms of blameworthiness assessments for negative acts. This study indicates that participants attribute praiseworthiness differently depending on their level of intimacy to the actor.

Donovan C. Long

Changing Perspective: Investigating Actor-Observer Asymmetry

Advisor: Dr. Bertram F. Malle

Historically, social psychologists involved in work with attribution theory have postulated that ordinary people use a dichotomy of situational vs. dispositional factors to explain human behavior. Within this framework, an asymmetry was found such that “actors” tend to attribute their behavior to the immediate situation and “observers” tend to attribute others’ behavior to their dispositional characteristics (Jones & Nisbett, 1972). A well-known experiment (Storms, 1973) appeared to eliminate this actor-observer asymmetry through a manipulation in which actors saw their own behavior from the external (observer) perspective. However, several attempts to replicate Storms’ results have failed. Nonetheless, the hypothesis that actors change their explanations when they see their behavior from an observer perspective seems very plausible and worthy of testing. Perhaps, however, the disposition-situation dichotomy is not sensitive enough to capture this effect. The present study tests the changing-perspective hypothesis by replicating the original procedure employed by Storms (1973) but using a more complex and robust folk-conceptual model behavior explanation (Malle, 1999). It is hypothesized that the results reported by Storms (1973) will not be replicable using the traditional situation-disposition dichotomy but that the folk-conceptual analysis will yield meaningful actor-observer differences that are sensitive to a change in perspective.

Katie MacCionnaith

Impression Management

Advisor: Dr. Bertram Malle

Traditional attribution theory discusses actor/observer asymmetry in terms of person factors vs. situation factors and trait-like person factors vs. nontrait person factors. The present study uses an alternative theory, the folk-conceptual model, which has found that actors more often use reason and unmarked belief explanations of behavior, while observers typically use causal histories, desires, and marked belief explanations of behavior. The primary process that has been used to explain this asymmetry has been cognitive access, which claims that actors such explanations because they have mental access and memory for reasons (especially belief reasons), while observers do not have such access to another person’s mind. The present study looks at an alternative hypothesis as to what process underlies the asymmetry, the process of impression management. This hypothesis suggests that actors try to present themselves as rational and deliberate, and therefore use reasons and particularly belief reasons to explain their behavior. The present study had participants explain behavior from either the actor perspective or the observer perspective, and in either a control or impression management condition where participants were told to create a positive impression of the agent. The participants’ answers were coded, using the F.Ex coding scheme to identify and clarify the various explanations. The actor and observer conditions were compared, with the prediction that asymmetries would follow past findings. The control and impression management conditions were also compared

for types of explanation. Results are still being analyzed. The discussion focuses on the implications of the findings of impression management as the process underlying the actor-observer asymmetry in behavior explanation.

Melissa Magaro

The True Irony of Thought Suppression: Depression and Deficits in Inhibitory Control

Advisors: Dr. Michael Anderson and Dr. Anne Simons

Depressive and non-depressive undergraduate students participated the Think/No-Think paradigm (Anderson & Green, 2001). Participants learned word pairs that consisted of a hint word and a response word (e.g. AVENUE – MILE). Throughout the experiment they practiced recalling some response words while they avoided thinking about the responses to other hint words. Later participants were given cued recall tests to observe the accessibility of all of the response words. Anderson and Green (2001) found that on final memory tests, participants were less likely to correctly recall to those words that they practiced suppressing. In addition, this recall impairment corresponded to the number of presentations of the suppression item. As the amount of suppression practice increased, their ability to recall the correct response word subsequently decreased. I predicted that depressed participants would be less successful at preventing the avoided words from coming to mind compared to their non-depressed counterparts. Previous research, based on the ironic processes theory, has indicated that depressed populations have difficulty keeping unwanted material out of mind (Wenzlaff & Bates, 1998; Howell & Conway, 1992). The current study examined this phenomenon using a new paradigm, with the expectation that the depressed and non-depressed groups would show different patterns of results. This difference would have implications for the way that episodes of depression are understood and treated.

Yukiko Matsuura

Personality and Personal Values in Travel Destination Preference among College Students

Advisor: Lynn R. Kahle

The roles of personality traits and personal values in relation to travel destination preferences were investigated. It was hypothesized that extraverted and internally-oriented people would prefer adventurous travel destinations, and that neurotic and externally-oriented people would prefer busy/crowded destinations. The Mini-Modular Markers (a short form of the Big Five) and the List of Values (a personal value scale) were employed to measure individual trait and value factors, and the travel destination preference inventory was applied. Participants consisted of 147 students at the University of Oregon. The results of a linear regression analysis supported the ideas that both personality traits and personal values could be good predictors of travel destination preferences. The relation between the traits and values, and the applicability of individual traits and values in tourism were discussed.

Jennifer Miner

Parental Attitudes Toward Pretend Play and Imaginary Companions in Preschoolers

Advisors: Dr. Marjorie Taylor and Dr. Kirby Deater-Deckard

Thirty-six middle class parents of preschoolers and 37 parents of Head Start preschoolers responded to a questionnaire about their attitudes toward common child behaviors, including pretend play. The pretend play behaviors to which parents responded included simple object substitution, and three forms of role play (impersonation, invisible imaginary companion, and visible imaginary companion). Parents also reported on the

imaginary companions of their children, if any were present. Results from this study indicate that Head Start parents were less positive toward pretend play than non-Head Start parents were, and that parents were generally less positive toward role play than toward object substitution. Parents' attitudes toward pretend play did not appear to relate to whether or not their child had an imaginary companion.

Matt Orbell

The Role of Physical Health in the Relationship Between Attractiveness and Cooperation: A laboratory study

Advisors: Dr. Warren Holmes, Jean Stockard, and Andre Lambelet

While there is a well-documented relationship between a subject's perceived physical attractiveness and others' willingness to cooperate with them, there has been no investigation of the role of perceived health in this equation—despite the fact that, in much evolutionary theory, health and appearance are claimed to be positively correlated. Cooperation in a prisoner's dilemma paradigm was investigated using subjects' health and physical appearance (attractiveness) scores as independent variables. It was hypothesized that subjects would favor cooperation with those whom they perceived as healthy as well as with those whom they perceived as attractive. Both predictions were supported. Subjects favored cooperation with those whom they perceived as healthy and, independently, did so with those they found to be physically attractive. An implication from this preliminary study is that health should be considered as well as physical attractiveness when investigating decision making in potentially cooperative social encounters.

Eve Rivinus

Why Stay?: Group Membership Preferences in Multiple Rounds of a Social Dilemma Experiment

Advisor: Dr. Holly Arrow

Participants played a multiple-round social card game (modeling a social dilemma) in which they formed groups repeatedly to earn money. After a group discussion on how to split the prize, participants made anonymous, individual claims on the money. If they overclaimed ("cheated"), the entire group was penalized. Members then answered whether they wanted to stay in the same group another round. Participants who cheated, had low trust of their groups, were victims of cheating, and were in large groups wanted to leave their groups significantly more often than those who did not fit these criteria. Trust and cheating were also combined into one variable to look at their effects together. Low-trusting cheaters were least likely, whereas high-trusting cooperators were most likely to want to stay in their groups. Looking at the data qualitatively through participant comments also revealed differing motivations underlying the desire to stay in or leave a group.

Laura Shula

Visual Selective Attention – One Mechanism or Multiple Mechanisms

Advisor: Dr. Edward Vogel

Cognitive psychologists have conceptualized attention in many different ways. For example, selective attention is thought to be involved in the encoding of objects into visual working memory, as seen in the attentional blink (AB) phenomenon. However, attention has also been conceptualized as a spatial "spotlight-like" process that can be moved through space to facilitate finding a target among distracters, as shown in visual search tasks. These depictions of attention are intrinsically different, yet the question still remains whether attention is one mechanism

with multiple jobs, or multiple independent mechanisms are responsible for each type of task. Using a dual task procedure that incorporated the attentional blink and visual search, the question was asked, while one type of attention is being used, can the other type of attention function normally? That is, can subjects shift their spatial attention to a new target location while they are simultaneously encoding a different object into visual working memory? The first target in the task was a number among a stream of letters, while the second target was a visual search task. The event-related potential (ERP) component, N2pc, was used to test whether an individual can move his/her attention during the attentional blink. Behaviorally, typical AB results were found with a suppression of accuracy for the second target with a short lag between the two targets. An N2pc was also found during and after the AB period suggesting that the attentional processes underlying spatial attention and visual working memory encoding are at least somewhat independent mechanisms.

Sara Stebner

Adults' Action Processing Relies on Detection of Statistical Structure

Advisors: Dr. Dare Baldwin

Recent work indicates sensitivity to statistical regularities within action may facilitate adults' action processing. For example, motion combinations that co-occur frequently are recognized as more familiar than novel combinations of these same motion elements. The present study examined whether adults' sensitivity to statistics in action requires dynamic presentation of motion; alternatively, adults may be able to track statistics if motions are depicted by still-frames capturing event boundaries (boundaries are known to be a focus of processing within action). Of interest is whether adults' sensitivity to statistical co-occurrences is robust enough to enable integration across static depictions of action. Twenty-four adults viewed a lengthy sequence of still-frame images in which four pre-established combinations of three motion elements were randomly intermixed. In a recognition phase, adults judged the highly predictable pre-established motion combinations ("actions") to be more familiar than novel combinations of the same motion elements ("non-actions"), indicating sensitivity to patterns of statistical cooccurrence when motion elements were static. These findings confirm adults' sensitivity to statistical regularities in action even in the absence of dynamic motion.

Sara J. Walker

Self-Control in Middle-School Students: Gender Effect, Stability, and Validity of Ratings

Advisor: Dr. Thomas J. Dishion

This study examines the development of self-control among middle-school children as rated by teachers and by the youth. The data were collected as part of an ongoing prevention trial referred to as the Adolescent Transitions Program (ATP) (Dishion, et al, 2002). In grades 6, 7 and 9 data were collected on 988 (50% female) students' self control, as well as on other aspects of the school and social adjustment. This study addresses four issues pertaining to self-control: the effect of gender, the stability of the trait over time, the predictive validity of self-report ratings on later problem behavior, and the convergent validity of self-report and teacher ratings. Analyses of ratings completed by 6th and 7th graders revealed a significant effect of gender on self-control. Existing research attempting to understand the stability of self-regulation during middle-school years suggests an increase in control and stability during this time (Murphy, et al, 1999); results from this study supports such a claim. The significant convergent validity of youth and teacher reports found in the current study's analyses serves to verify that the two reporting agents agree as to individual differences on students' self-control. Finally, the significant predictive validity of later

problem behavior, suggests that self-control is a key skill to acquire during adolescence, as well as to identify a possible intervention target.