**Positive Psychology Summer Institute 2001 Short Research Summaries**

**Sara B. Algoe Summary: Appreciating Gratitude: Distinguishing the Positive Experience of Thankfulness**
Personal accounts of emotional experience were collected in two studies to test the hypothesis that gratitude is a distinct positive emotion. Participants either related times when another did something good for them, or times when they reached a goal. They answered questions about the events, including eliciting conditions, feelings, motivations, and changes in social relationships. Results demonstrate distinct features of gratitude. Centrally, participants in the gratitude condition focused on the benefactor's virtue and future well-being, while those in the happiness condition focused on their own positive feelings. These findings may have implications for building social alliances and personal well-being.

**Jack J. Bauer Summary: Growth and Well-Being in Stories of Voluntary Life Transitions**
The life transition stories of 67 participants who had changed careers or religions were coded for several dimensions of personal and interpersonal growth and were compared with measures of well-being. Participants' reasons for making the change held strong ties to well-being. Participants who emphasized approaching the future rather than escaping the past reported higher well-being, as did participants who emphasized intrinsic rather than extrinsic motivations for the change. Intentions for interpersonal growth predicted well-being at least as strongly as intentions for personal growth. The study laid a foundation for longitudinal research on intentional self-development during voluntary life transitions.

**Julienne E. Bower Summary: Finding Positive Meaning and Physical Health: Physiological and Psychological Mechanisms**
We have shown that individuals who find positive meaning following a stressful life experience also show positive changes in immune status and health. The current study is designed to examine how finding meaning may confer immunological benefits. We hypothesize that individuals who have found meaning will be less troubled by subsequent stressors, thereby minimizing excessive and/or prolonged activation of biological stress response systems. Breast cancer survivors are assessed for cancer-related meaning, then undergo an experimental stress task. Both neuroendocrine and autonomic responses to the task are assessed. Data collection for this study is currently underway.

**Jeff Burgdorf Summary: The Neurobiology of Positive Emotions**
My research examines how the brain processes positive emotion, using a rat model of positive emotion. We have identified a vocalization in rats that reflects a positive affective state (50-kHz ultrasonic vocalization), which is akin to human laughter, and in this model we stimulate the brain of the rat with various drugs or electrical stimulation to elicit these vocalizations. Our data suggest that the brain neurotransmitter dopamine in the area of the brain called the nucleus accumbens plays an important role in positive emotions. This hypothesis is further supported by recent brain imaging studies examining positive emotions in humans.

**Stephane Cote Summary: Individual Differences in Affective Experiences Associated with Interpersonal Behavior**
The goal of this research was to explore whether individuals with different personality traits like doing different things. Affective reactions to interpersonal behaviors were examined in people with different personality traits. It was predicted that individuals would have more pleasant (or unpleasant) affective reactions to interpersonal behaviors that are concordant (or discordant) with their personality. Participants completed personality questionnaires and reported on their affect and interpersonal behavior multiple times. Support for the hypothesis was found in several studies. Agreeable individuals enjoyed engaging in friendly, cooperative behavior. Also, counter-intuitively, neurotic individuals enjoyed engaging in behavior that is hostile or submissive.

**Elissa Epel Summary: Positive Psychological Factors and Parasympathetic Activity during Chronic Stress**
There has been little research examining positive psychological factors and counter-regulatory or "anti-stress" physiological processes that may promote recovery from stress and a state of enhanced health. One of the principal counter-regulatory systems is the parasympathetic nervous system, which can be measured by how well the vagus nerve regulates heart rate (vagal tone). The current research examines whether positive psychological factors (positive emotion, meaning based coping, optimism, spirituality, and psychological growth after facing stress) buffer from the effect chronic stress by increasing vagal tone. 25 mothers of chronically ill children and 25 matched controls are currently being assessed on these parameters.

**Julie Exline Summary: Letters, logic, and letting loose: Can writing about past hurts facilitate forgiveness?**
This study suggests that when college students have been hurt by others, they may experience health benefits and increased forgiveness by writing letters to those who hurt them (knowing the letters would not be mailed). The letter's tone is important, however: Regardless of how angry the writer feels, strong expression of hostility is linked with continued anger two weeks later. Yet expressing strong emotion (including anger) might also lead to reduced physical symptoms two weeks later. These preliminary results suggest a possible tradeoff in the written expression of hostility: It might bring short-term health benefits while locking in angry feelings.

**Shelly Gable Summary: Flourishing Relationships: Appetitive and Aversive Processes in Close Relationships**
The present research examined appetitive and aversive systems in marital relationships. It was hypothesized that activation of the approach system would be associated positive relationship qualities, and activation of the avoidance system would be associated negative relationship qualities. In addition, it was predicted that these two systems would operate through different processes. Participants (86 married couples) completed approach and avoidance motivation and goal measures, and everyday for two weeks they completed measures of the quality of their relationship and reported on both their own and their spouses' behaviors. The results supported the utility of examining appetitive and aversive relationships processes and outcomes separately.

**David Gard Summary: Positive Emotion in the Daily Lives of Patients with Schizophrenia**
Empirically little is known about the experience of positive emotion in schizophrenia, but historically the assumption has been that they do not experience much of it. This study used the experience sampling method to examine emotional experience in schizophrenia patients and non-patient controls. Findings indicate that, in general patients report experiencing as much positive emotion as do non-patients. Further, patients reported experiencing as much enjoyment, or pleasure in the activities they were engaged in as non-patients, but reported less anticipatory enjoyment than non-patients. These findings have led to the development of a model of the experience of pleasure.

**Melanie Green Summary: The Restorative Function of Transportation into a Narrative World: Stories and Self-Regulation**
The phenomenological experience of being absorbed in a story, a process called "transportation into a narrative world," has been shown to be a mechanism of narrative impact (Green & Brock, 2000). A transported individual is cognitively and emotionally involved in a story, and removed from self-focused concerns. The current research investigated the role of transportation into narrative worlds in improving self-regulatory ability, or ego functioning. We hypothesized that transportation might be an especially effective means of restoring temporarily-depleted self-regulatory resources. Our experiment did not confirm this hypothesis, but follow-up studies are planned to address issues raised in this preliminary investigation.

**Derek Isaacowitz Summary: An adult developmental perspective on Positive Psychology wellsprings**
Human strengths must be considered in a life-span developmental framework. Behaviors considered reflective of wisdom or self-regulation at one age may be seen as inappropriate when done by individuals of other ages. It should therefore be expected that both the level and the adaptive function of human strengths should not be static across adulthood. This idea was tested in a large sample of adults, aged 18-93. Both the level of strengths and their relationship to life satisfaction differed in adults of different ages. Older adults, in particular, may have unique opportunities to express and benefit from their strengths.

**Leslie Kirby Summary: Personality, Physiology and Performance: The Effects of Optimism on Task Engagement**
Previous research has suggested that trait optimism should affect an individual's perceived task demand. Specifically, under conditions of high objective task difficulty, those higher in optimism should try harder (be more engaged in the task) than those relatively low in optimism. At lower demand levels, where both optimism groups view success as possible but the low optimism group sees it as requiring more effort, the relation between optimism and effort should be reversed. In two studies, high and low optimism individuals attempted to solve a series of easy vs. difficult anagrams. The predicted interaction was found in both studies.

**Chantal Levesque Summary: Autonomous motivation as an implicit and an explicit disposition: Relation to daily life and well being**
Implicit motives are consistently linked to representations of situations over time. We hypothesize that implicit and explicit motives will predict different outcomes in some situations. Implicit motives would best predict automatically regulated perceptions, whereas explicit motives would predict consciously regulated perceptions. The Implicit Association Test (IAT) was used to assess implicit individual differences. Then participants completed a 14-day diary study. Results showed that implicit motives predicted daily autonomous motivation and explicit motives were associated with retrospective accounts. The discrepancy between implicit and explicit motives predicted daily negative emotions. Mindfulness was associated with a reduced discrepancy between implicit and explicit motives.

**Debra Lieberman Summary: The cognitive mechanisms mediating kin-directed altruism**
The evolution of kin-directed altruism and inbreeding avoidance relies on the existence of psychological mechanisms dedicated to recognizing close kin. Over our species evolutionary history, specific cues would have reliably correlated with an individual being a particular type of close genetic relative. One of the cues hypothesized to be relevant for recognizing siblings is co-residence and close physical association during early childhood. The purpose of this research is to investigate the relationship between the strength of potential cues that are hypothesized to play a role in sibling recognition and patterns of altruism directed toward siblings.

**Eric Lindsey Summary: Social Determinants of Young Children's Optimism**
Associations between children's optimism, parent's optimism, and the quality of children's peer interactions were examined with a sample of 26 preschoolers and their parents. A puppet interview was used to assess children's optimism, parent's completed the Life Orientation Test (LOT), teacher and peer assessments of children's social competence were collected, and children were observed interacting in a dyadic peer play session. A positive correlation was found between mother's optimism and children's optimism. Children with high levels of optimism were rated by teachers as being more competent, were better liked by peers, and were more involved and more synchronous during the peer play session.

**Paulo Lopes Summary: Emotional Intelligence and the Perceived Quality of Social Relationships**
This study yielded preliminary evidence that emotional intelligence, measured as a set of abilities, is distinct from personality and verbal intelligence, and is associated with the perceived quality of social relationships. We used the Mayer, Salovey, and Caruso Emotional Intelligence Test (MSCEIT) to assess emotional skills. In a sample of 103 college students, we found that emotional intelligence correlated modestly with verbal intelligence, and some personality traits. Emotional intelligence explained self-reported quality of social relationships, controlling for personality traits and verbal intelligence. Further research is needed to evaluate whether emotional intelligence predicts other important outcomes.

**Tracy McLaughlin-Volpe Summary: The Hidden Rewards of Cross-Group Friendships: Self-Expansion across Group Membership**
A longitudinal prospective study was conducted to test the hypothesis that people who develop new cross-group friendships as compared to in-group friendships will experience more self-concept change and will develop a more dynamic world-view. Analyses revealed that the extent to which a new friend was perceived as different from self was positively related to continuous self-concept change. This association appeared to be partially mediated by relationship closeness. A second set of analyses revealed that the more new cross-group friendships a person developed the more they endorsed a dynamic view of self and others.

**Judith Tedlie Moskowitz Summary: The experience of positive emotion in parents of children with chronic illness**
Through exploratory interviews with a purposive sample of 10 mothers of children with a genetic mutation associated with Familial Adenomatous Polyposis (FAP), an inherited disorder that, if left untreated, leads to colorectal cancer I will explore the occurrence and function of positive emotion in the context of stress. The data from this study will indicate whether parents are aware of their experiences of positive emotion even when they are experiencing high levels of stress, whether they can report on their experiences, whether they have ideas about how the positive emotion came about, and what function it served for them.

**Jeanne Nakamura Summary: Sustaining Engagement**
How is vital engagement - a meaningful and absorbing relationship with the world - sustained over time? This study explored sustained engagement in creative work. In the canonical creative career, a guiding purpose originating before adulthood animates and unifies endeavors throughout life. Data were 40 interviews with eminent scientists and artists still active in later life (mean age 72) and re-interviews conducted 10 years later with four subjects as a pilot longitudinal study. Less than half of the 40 subjects' narratives fit the canonical pattern. All patterns of engagement appeared to share an underlying dynamic, however, with goals emerging out of the individual's ongoing interactions with art or science. Longitudinal analysis supported this finding.

**Jack B. Nitschke Summary: Neural Circuitry of Positive Emotion: An fMRI Study of Mothers Viewing Pictures of Their Infants**
In an attempt to uncover some of the brain machinery involved in positive emotion, this study employed functional magnetic resonance imaging (fMRI) in new mothers while they viewed photographs of their own infants. Photo shoots were conducted with infants (3-5 months of age) of 6 first-time mothers. The mothers first saw the photographs one month later while undergoing fMRI. Areas showing greater activation to their own than to an unfamiliar infant included a diverse array of brain structures dedicated to emotional responsiveness (orbitofrontal cortex, dorsolateral prefrontal cortex), visual processing (occipital cortex), motor behavior (precentral gyrus, cerebellum), and memory (parahippocampal cortex).

**Ginger Pennington Summary: Self-Congruencies and the Positive Consequences of Self-State Representations**
This research examined positive emotions resulting from the satisfaction of self-related standards based on one's own standpoint versus the standpoint of significant others (parents). Participants' affective responses to positive feedback were hypothesized to vary as a function of both the "standpoint" of the goal and "self-construal" (i.e., perception of the self as "independent" of others versus relationally interdependent). As hypothesized, participants who received feedback consistent with the other standpoint on the self reported higher levels of positive affect when primed to think about the self interdependently versus independently. The opposite pattern occurred in response to feedback based on the own standpoint.

**Moria Smoski Summary: Laughing Matters: Antiphonal Laughter between Friends and Strangers**
This study tested the influence of gender and familiarity on the production of antiphonal laughter. Laughter is antiphonal when it co-occurs with or immediately follows a social partner's laugh. Antiphonal laughter may index a willingness to cooperate or affiliate. Same- and opposite-sex pairs were audiorecorded over three sessions, each 1 month apart, while playing games designed to promote laughter. Overall, friends produced more antiphonal laughter than strangers. Female friends produced higher rates of antiphonal laughter than males early in friendship development, but equivalent rates by two months of friendship. This early difference may be due to greater competition among males.

**Ty Tashiro Summary: Personal Growth Following Relationship Dissolution**
The purpose of this study was to investigate personal growth following the breakup of a romantic relationship. It was hypothesized that the reasons individuals cited for the decline and dissolution of their previous relationship would be related to the amount of growth they experienced. Results indicated that individuals who were able to identify a higher number of environmental causes (e.g., my family disapproved, work stress) were more likely to experience growth than those who engaged in self-blame or blaming the ex-partner. In addition, personality types exhibited little influence upon growth and women experienced more growth than men.

**Michele Tugade Summary: The Effects of Positive Emotions on Coping Flexibility for Low and High Resilient Individuals.**
Drawing from the broaden-and-build theory of positive emotions (Fredrickson, 1998), it was predicted that positive emotions foster coping flexibility for resilient individuals. After imagining themselves in stressful scenarios, participants were randomly assigned to experience positive, neutral, or negative emotion. Then, they rated different strategies they would use to cope with the situations. Resilience group differences were evident in the positive emotion condition: low resilient participants evidenced relatively greater coping flexibility, and despite being less flexible with coping strategies, high resilient participants reported relatively greater coping control. The implications of these findings on coping flexibility and resilience are discussed.