



**The 7<sup>th</sup> Annual Conference of  
The Society for the Study of  
Motivation  
May 22, 2014**

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## Program Committee Members

### ***Program Committee Co-Chairs:***

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### ***Program Committee Secretary:***

Kaspar Schattke, *Concordia University*

### ***Young Investigator Poster Award Committee Chair:***

Kerstin Brinkmann, *University of Geneva*

## Program Schedule

**8:00 - 8:30am**

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**Welcoming Remarks and SSM Annual Business Meeting**

Golden Gate 2

**8:30 - 9:30am – Invited Talk**

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**David Dunning, Cornell University**

Title: What Motivates Trust among Strangers

Golden Gate 2

**9:30 – 9:45am**

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**Coffee Break**

**9:45 – 11:00am – Symposium Session A**

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**Motivation and Emotion**

Chairs: Emily Balcetis and Joyce Ehrlinger

Speakers: James Gross, Jess Tracy, Dacher Keltner, and Jamil Zaki

Golden Gate 4

**Psychophysiology of Motivation in Applied and Clinical Contexts**

Chair: Kerstin Brinkmann

Speakers: A. Timur Sevincer, Nicolas Silvestrini, Rémi L. Capa, and Jessica Franzen

Golden Gate 5

**11:00 – 11:15am**

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**Break**

**11:15 - 12:30pm – Symposium Session B**

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**Motivation and Politics**

Chairs: Emily Balcetis and Joyce Ehrlinger

Speakers: Peter Ditto, Emily Balcetis, Robb Willer, and Kristin Laurin

Golden Gate 4

**Determinants and Mechanisms of Effort Investment**

Chair: Michael Richter

Speakers: Guido H. E. Gendolla, Claire Zedelius, Samuele Marcora, Michael Richter,  
and Michael T. Treadway

Golden Gate 5

**12:30 – 2:00pm**

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**Lunch Break**

**2:00 – 2:45pm**

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**Data Blitz Session**

Speakers: Sylvia D. Kreibig, Mark M. Kurai, Djoerd Hiemstra, Brandilynn Villarreal,  
Jehan Sparks, and Anna Vazeou-Nieuwenhuis  
Golden Gate 2

**2:45 – 3:45pm – Presidential Address**

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**Roy Baumeister, Florida State University**

Title: Toward a General Theory of Motivation: Challenges, Obstacles, and Opportunities  
Golden Gate 2

**3:45 – 4:45pm – Keynote Address**

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**Carol Dweck, Stanford University**

Title: Beliefs are Central to Understanding Human Motivation  
Golden Gate 2

**4:45 – 5:00pm**

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**Break**

**5:00 – 6:15pm – Symposium Session C**

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**More Ways that Mindsets Matter: New Perspectives in Lay Theory Research**

Chairs: Patricia Chen and Anne E. Wilson

Speakers: Joyce Ehrlinger, Aneeta Rattan, Patricia Chen, and Anne E. Wilson  
Golden Gate 4

**Goal Engagement and Vitality: Implicit, Neural, and Contextual influences**

Chairs: Idit Shalev and Marieke Roskes

Speakers: Idit Shalev, Lisa Legault, Julia Schüler, E.J. Masicampo, and Marieke Roskes  
Golden Gate 5

**6:15-7:45pm**

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**Evening Reception and Poster Session**

Golden Gate 6-8

## **Invited Talk**

8:30-9:30am  
Golden Gate 2

### **What Motivates Trust among Strangers**

**David Dunning**

*Professor of Psychology  
Cornell University*

Philosophical, economic, and psychological accounts of interpersonal trust all agree that it makes little sense to trust total strangers, yet anonymous participants in laboratory games involving money trust each other at remarkable and seemingly irrational rates. What motivates such trust? I argue that these laboratory games, which have the look and feel of economic transactions, turn out to be anything but. Trust is sensitive to emotional and social motivations that lay well outside economic self-interest, motives that harken back to some of the oldest observations made in social psychology and related fields.

## **SSM Presidential Address**

2:45-3:45pm  
Golden Gate 2

### **Toward a General Theory of Motivation: Challenges, Obstacles, and Opportunities**

**Roy F. Baumeister**

*Francis Eppes Eminent Scholar and Professor of Psychology  
Florida State University*

The importance of motivation relative to cognition, emotion, and other variables is currently underappreciated in much psychological theory. This talk offers one take on what a general theory of motivation would look like. Key topics include general/latent versus specific desires, motivational consequences specific to human evolution, whether addiction is a special case or exaggerated prototype of motivation, pervasive inhibition of motivations, and the question of whether there is a drive toward meaning.

## **Keynote Address**

3:45-4:45pm  
Golden Gate 2

### **Beliefs are Central to Understanding Human Motivation**

**Carol S. Dweck**

*Lewis and Virginia Eaton Professor of Psychology  
Stanford University*

Classic and modern motivational theories have taken up the challenge of identifying basic human motives and the processes through which they drive and direct goal pursuit. Although some accord a central role to cognition, few have addressed the role of beliefs in motivation--even though beliefs are a defining characteristic of humans and are, I will argue, fundamental to understanding human motives and the pursuit of goals.

## **Data Blitz Session**

**2:00 – 2:45pm**

**Golden Gate 2**

### **1. The psychophysiology of mixed emotional states**

Sylvia D. Kreibig<sup>1</sup>, Andrea C. Samson<sup>1</sup> and James J. Gross<sup>1</sup>

<sup>1</sup>*Stanford University*

A central issue in theories of motivation is how to conceptualize mixed emotional states. We recently reported physiological differentiation of a mixed emotional state of amusement and disgust from its pure constituent emotions (Kreibig, Samson, & Gross, 2013). In the present study, we retested three theoretical accounts regarding physiological responses in mixed emotions: non-differentiation, additive, and emergence accounts. Forty-eight women watched 54 amusing, disgusting, and mixed emotional film clips while feeling self-report, facial electromyography, cardiovascular, electro dermal, and respiratory measures were assessed. Concurrent self-reports of amusement and disgust confirmed elicitation of a mixed emotional state. Physiologically, mixed emotions differed from pure amusement and pure disgust both in intensity and pattern, suggesting a distinct physiological response of the mixed emotional state. This supports the emergence account of mixed emotions, which holds that mixed emotions combine appraisal outcomes that are typical for several different pure emotions and thus constitute a distinct emotional state.

### **2. Identity theft: Motivational and emotional responses to group symbol appropriation**

Mark M. Kurai<sup>1</sup> and Alison Ledgerwood<sup>1</sup>

<sup>1</sup>*University of California, Davis*

The notion that symbolic representations of group identity such as monuments are important to group functioning has important implications for understanding the psychological processes evoked when one group claims the same symbol as another (appropriation). Such overlapping claims on in group symbols occur frequently and can shape intergroup relations. We tested the hypothesis that out group claims on symbolic in group property threatens the perceived value of the property, increases negative affect (particularly anger), and subsequently motivates group members to protect the symbolic property. Further, we explored how these responses are influenced by the symbolic content of the property and the relative status of the out group. Results confirmed our primary predictions and further suggested that higher status groups are more likely than lower status groups to engender the feelings of threat and anger that are associated with engaging in collective action.

### **3. Enhancing self-directed learning: The effects of strength-based versus deficit-based learning goals**

Djoerd Hiemstra<sup>1</sup> and Nico W. Van Yperen<sup>1</sup>

<sup>1</sup>*University of Groningen*

In two randomized experiments, one conducted online (n = 174) and one in the classroom (n = 267), we tested the effects of two types of learning goals on students' willingness to put effort into self-directed learning activities: learning goals aimed at developing a perceived strength (*strength-based learning goals*) versus learning goals aimed at diminishing a perceived deficit (*deficit-based learning goals*). Across both studies, analysis of variance revealed that, relative to students who pursued deficit-based learning goals, students who pursued strength-based learning goals were higher in perceived competence, intrinsic motivation, and effort intentions. Moreover, the results of multi-mediator analysis and structural equation modeling supported the hypothesis that the effect of strength-based learning goals versus deficit-based learning goals on students' effort intentions was sequentially mediated by perceived competence and intrinsic motivation. Implications for academic goal-setting in the context of self-directed learning are discussed.

#### **4. College enrollment goals for the year after high school: Costs of failure and benefits of ambition**

B. Villarreal<sup>1</sup>, J. Heckhausen<sup>1</sup> and J. Lessard<sup>1</sup>

<sup>1</sup>*University of California, Irvine*

Despite a “college-for-all” mentality among today’s youth, many youth will fail to reach their educational goals. The present study investigated the trade-offs between ambitious goal setting and the consequences of failing to meet such goals in the year after high school graduation. Both paths have risks; youth can: (1) under-aspire and forgo the myriad benefits of further education, or (2) over-aspire and possibly fail, which may lead to negative consequences. In this longitudinal study, an ethnically and socioeconomically diverse sample of over 1,000 high school seniors (54% female) were surveyed during their senior year of high school with follow-ups one and four years after high school graduation, respectively. Having ambitious short-term educational goals, even if failing to achieve these goals, produced greater positive outcomes than less ambitious educational goals. Despite the risk of failure, it is beneficial to have ambitious short-term educational goals, especially when guided by high long-term expectations.

#### **5. When good is stickier than bad: Lingering framing effects differ for loss versus gain domains**

Jehan Sparks<sup>1</sup> and Alison Ledgerwood<sup>1</sup>

<sup>1</sup>*University of California, Davis*

Considerable research has demonstrated the power of the current frame to shape approach and avoidance responding. But recent work suggests that some frames can stick: At least in the domain of losses, negative frames tend to stick in the mind and continue to influence judgments even in the face of an opposing frame. We extended this research to the gain domain to help better understand the dynamic nature of frames. After seeing information about a potential gain (a cognitive training regimen for memory enhancement) or loss (a regimen for avoiding memory loss) framed in positive terms (the regimen’s success rate) or negative terms (the regimen’s failure rate), participants saw the same issue reframed in the opposing way. The results showed that the tendency for negative frames to stick more than positive frames holds in the loss domain, but significantly reverses in the gain domain,  $F(1,196) = 19.59, p < .001$ .

#### **6. Interpersonal determinants of self-regulation: Attachment style influence locomotion and assessment tendencies**

Anna Vazeou-Nieuwenhuis<sup>1</sup>, Edward Orehek<sup>1</sup> and Ellen Quick<sup>1</sup>

<sup>1</sup>*University of Pittsburgh*

Researchers have called for the integration of research on interpersonal processes and self-regulation (Fitzsimons & Finkel, 2010). Toward that aim, we investigated the link between attachment styles and regulatory mode orientations. According to regulatory mode theory (Kruglanski et al., 2000), locomotors are concerned with initiating goal-directed movement, whereas assessors are concerned with appraising potential end-states. We predicted that because anxious attachment is characterized by appraisal and evaluation, the presence of individuals who foster attachment anxiety would lead to increased assessment tendencies. We predicted that because avoidant attachment is characterized by disengagement, the presence of individuals who foster attachment avoidance would lead to reduced locomotion tendencies. Four studies supported our predictions utilizing both correlational and experimental methods and demonstrated that regulatory mode orientations shift dynamically as the person changes interaction partners.

## Symposia Session A

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### ***Symposium A1 – Golden Gate 4 – 9:45-11:00am***

#### **Invited Symposium: Motivation and Emotion**

Emily Balcetis<sup>1</sup> and Joyce Ehrlinger<sup>2</sup>

<sup>1</sup>*New York University*, <sup>2</sup>*Washington State University*

This symposium brings together important research on the relationship between motivation and emotion. Gross will present research on the motives that guide specific forms of emotion and the consequences of that regulation. Next, Tracy will describe evidence that authentic and hubristic pride have motivational origins related to social rank. Keltner will present research on the neurophysiology of care giving and compassion. Finally, Zaki will present evidence that lay theories of empathy shape empathic motivation and behavior.

#### **A1a. Emotion regulation: A motivational perspective**

James Gross<sup>1</sup>

<sup>1</sup>*Stanford University*

Work from dozens of laboratories around the world has converged to establish that emotion regulation plays a crucial role in determining a wide range of affective, cognitive, and social outcomes. My talk will have three parts. In the first part of the talk, I will define emotion and emotion regulation. In the second part of the talk, I will review key behavioral findings, which suggest that specific forms of emotion regulation have different consequences for affective, cognitive, and social functioning. In the third part of the talk, I will present a motivational perspective on emotion regulation that addresses the crucial issue of what triggers or motivates emotion regulation

#### **A1b. The Motivational Origins of Social Rank Attainment: Authentic and Hubristic Pride**

Jessica L. Tracy<sup>1</sup>, Joey T. Cheng<sup>2</sup>, and Aaron C. Weidman<sup>1</sup>

<sup>1</sup>*University of British Columbia*, <sup>2</sup>*University of California, Berkeley*

Recent research suggests that there are two distinct routes to attaining social rank in human societies: dominance, based on threat and intimidation, and prestige, based on the possession of skills or expertise (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013). Independently, emotion researchers demonstrated two distinct forms of pride: hubristic and authentic (Tracy & Robins, 2007). Bridging these two areas, we argue that hubristic and authentic pride, respectively, are part of the affective-motivational suite of psychological adaptations underpinning dominance and prestige. Specifically, hubristic pride may function to motivate the behaviors necessary to attain and maintain a reputation of dominance (i.e., self-aggrandizement, aggression, and manipulative power-seeking), whereas authentic pride may function to motivate the behaviors necessary for a reputation of prestige (i.e., achievement-striving, pro-sociality, and advice-giving). Here, I will report results from two correlational studies supporting these associations. I discuss findings from longitudinal studies indicating that *low* levels of authentic pride are also motivational; the absence of pride motivates increased future effort and promotes improved performance. Collectively, this research suggests that authentic and hubristic pride serve motivational functions, helping individuals climb the social hierarchy.

#### **A1c. The Motive to Care: Evolutionary and Cultural Determinants of our “Strongest Instinct”**

Dacher Keltner<sup>1</sup>, Alex Kogan<sup>1</sup>, Paul Piff<sup>1</sup>, and Sarina Rodrigues<sup>1</sup>

<sup>1</sup>*Stanford University*

In this talk I will detail our recent conceptual analysis of the evolution of prosociality (Keltner, Kogan, Rodrigues, & Piff, *Annual Review*, 2014). I will outline the neurophysiology of care giving and compassion, and its evolutionary origins in signaling behavior. I will also detail the latest discoveries concerning the social constraints upon our prosocial tendencies, which range from social class to reputational concerns.

#### **A1d. Lay theories of empathy modulate empathic motivation under challenging circumstances**

Jamil Zaki<sup>1</sup>, Karina Schumann<sup>1</sup>, and Carol S. Dweck<sup>1</sup>

<sup>1</sup>*Stanford University*

Classic and contemporary theories often hold that empathy automatically “happens to” observers whenever they encounter another person’s emotions. However, would-be empathizers also experience motives to approach or avoid others’ emotions. Avoidance motives often damage empathy just when it is most needed, for instance when

people encounter outgroup social targets. Here I focus on one technique for modulating empathic motivation: inducing *lay theories* about empathy as either a fixed or malleable phenomenon. Malleable, as compared to fixed, theories of empathy prompted observers to empathize with social targets with whom they disagreed politically, and to engage with others' emotions even when empathy promised to be painful. These data support a motivated model of empathy, and suggest that motivation-based interventions can increase empathic approach motives, especially under challenging situations.

## ***Symposium A2 – Golden Gate 5 – 9:45-11:00am***

### **Psychophysiology of Motivation in Applied and Clinical Contexts**

Kerstin Brinkmann<sup>1</sup>

<sup>1</sup>*University of Geneva*

Resource mobilization is an important concept not only in fundamental motivation research but also in various applied and clinical contexts, where changes in the initiation and engagement in effortful behavior are often observed. This symposium presents several lines of investigation relying on physiological indicators of effort (EEG, cardiovascular) and aiming at understanding the psychophysiology of effort mobilization in non-clinical and clinical populations. Timur Sevincer presents persistent energization elicited by mental contrasting and its implications for self-regulation. Nicolas Silvestrini discusses the impact of priming the concept of pain on effort mobilization in dependence on task characteristics. Rémi Capa shows deficient use of affective feedback in schizophrenic patients in a study on affective priming and effort allocation. Jessica Franzen presents reduced effort mobilization in dysphoric individuals during the anticipation of monetary and non-monetary rewards. An integrative discussion on effort, its physiological measures, and its importance for applied and clinical settings concludes the symposium.

#### **A2a. Energization by mental contrasting persists over time and fuels effort in unrelated tasks**

A. Timur Sevincer<sup>1</sup> and Gabriele Oettingen<sup>2</sup>

<sup>1</sup>*University of Hamburg*, <sup>2</sup>*New York University*

Mental contrasting a desired future with present reality is a self-regulation strategy that fosters energization in line with people's expectations of successfully attaining the desired future (Oettingen et al., 2009). We investigated the extent to which physiological energization (measured by systolic blood pressure) elicited by mental contrasting persists over time and fuels effort in an unrelated task. We found that mental contrasting the desired future of realizing an important interpersonal wish triggered changes in energization that lasted over a period of 20 min while participants engaged in distractor activities (Study 1). Moreover, changes in energization triggered by mental contrasting an important academic wish fuelled physical effort in squeezing a handgrip (Study 2). Results suggest that physiological energization elicited by mental contrasting persists over time and fuels effort in an unrelated task. We discuss theoretical and practical implications for the processes of energization and the self-regulation of energization.

#### **A2b. Priming pain and effort-related cardiovascular response**

Nicolas Silvestrini<sup>1</sup>

<sup>1</sup>*University of Geneva*

Pain condition is often associated with impairment in cognitive processes. Two studies tested the idea that priming pain not only affects task performance but is also associated with an increase in perceived task difficulty, which in turn influences effort mobilization as long as success is possible and worthwhile. Whereas the results of the first study manipulating task difficulty partially confirmed our predictions, the results of the second study manipulating reward completely supported them. Accordingly, we found that participants primed with pain during a difficult task disengage from the task when the reward is moderate but have a very strong effort-related cardiovascular response when the reward is high compared to participants primed with neutral words. These findings suggest that pain leads to an increase in perceived task difficulty and has an impact on effort-related cardiovascular response. Implications for other effortful processes associated with self-regulation and pain condition will be discussed.

### **A2c. Positive supraliminal and subliminal affective cues on goal pursuit in schizophrenia**

Rémi L. Capa<sup>1</sup>, Anne-Clémence Chaillou<sup>1</sup>, Anne Bonnefond<sup>1</sup>, Ruud Custers<sup>2</sup>, and Anne Giersch<sup>1</sup>

<sup>1</sup>*University of Strasbourg*, <sup>2</sup>*University College London*

We explored whether affective feedback influences goal pursuit in schizophrenia. Patients and healthy controls were instructed that a long run of successive correct responses in a reaction time task would entitle them to a reward (the goal to attain). Neutral, negative or positive pictures, used as affective feedback, were displayed supraliminal or subliminally during each run. For the healthy controls, supraliminal and subliminal affective cues influenced the different steps, such as the preparation (CNV, at fronto-central area), the selection of stimulus characteristics and of response (P200/N200, at fronto-central area), and the allocation of effort (P300, at centro-parietal area). For the schizophrenic patients, supraliminal and subliminal affective cues were just able to influence the selection of stimulus characteristics (P200) and the allocation of effort (P300) and had no influence on the other steps. In conclusion, patients have deficits to use affective feedback during goal pursuit.

### **A2d. Reduced cardiovascular reactivity during monetary and non-monetary reward anticipation in dysphoria**

Jessica Franzen<sup>1</sup> and Kerstin Brinkmann<sup>1</sup>

<sup>1</sup>*University of Geneva*

Previous behavioral and neuro-scientific studies showed hyposensitivity to reward in clinical and subclinical depression. Only few studies have addressed the motivational question as to whether depressed individuals mobilize less effort in anticipation of a positive consequence. The present three studies investigated reward responsiveness in subclinical depression from an effort mobilization perspective. Students with low versus high depression scores worked on a cognitive task. Effort mobilization was operationalized as participants' cardiovascular reactivity during task performance. Type of reward varied between the three studies: Participants could earn money in the first study, while a non-monetary reward (social approval, food) was promised in case of good performance in the two other studies. As expected, nondysphorics' cardiovascular reactivity was higher during reward anticipation compared to the neutral conditions, while it was reduced across conditions in dysphoria. Thus, these studies show reduced anticipatory motivation for obtaining a monetary or a non-monetary reward in dysphoria.

## **Symposium Session B**

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### ***Symposium B1 – Golden Gate 4 – 11:15am-12:30pm***

#### **Invited Symposium: Motivation and Politics**

Emily Balcetis<sup>1</sup> and Joyce Ehrlinger<sup>2</sup>

<sup>1</sup>*New York University*, <sup>2</sup>*Washington State University*

This symposium explores the motivational forces that give rise to social movements, personal ideologies, and political activism. Willer describes sociological events that produce psychological experiences of threat, which have given rise to the Tea Party movement. Balcetis tests how threats to personal ideological beliefs lead to perceptual exaggeration of threatening information and political engagement. Laurin explores the effect of certainty and information processing styles on two forms of responding to restricting political policies. Ditto tests the role of personal self-enhancement motives on the development of personal political beliefs.

#### **B1a. The Decline of Whiteness and the Rise of the Tea Party**

Robb Willer<sup>1</sup>

<sup>1</sup>*Stanford University*

The Tea Party is the most electorally influential social movement in recent American history. What factors led the movement to emerge when it did? And what role might racial prejudice play in Tea Party support? Here I test the claim that recent political, demographic, and economic events have threatened the status of white Americans, leading them to increased racial prejudice and support for the Tea Party. Five studies support this reasoning, demonstrating that various threats to the status of whites lead white Americans to express both greater prejudice and greater support for the movement. A final study finds that threatened whites reported greater support for the Tea Party when racialized aspects of its platform (e.g., opposition to immigration) were highlighted, not when libertarian positions (e.g., opposition to environmental regulation) were. These findings support a view of the Tea Party as, in

part, a response to a perceived decline in the status of whiteness in America. I conclude by discussing prospects for a general theory of the role of group status in the mobilization of large scale collective actions.

### **B1b. Connecting [Eye]-deology to Action: Motivated Visual Representations in Political Contexts**

Emily Balcetis<sup>1</sup>, Shana Cole<sup>1</sup>, Yael Granot<sup>1</sup>, Eugene Caruso<sup>2</sup>, and John Jost<sup>1</sup>

<sup>1</sup>*New York University*, <sup>2</sup>*University of Chicago*

How do people process information that threatens their ideological beliefs? We propose that people respond to political threats by engaging in threat exaggeration, a process that assists in the regulation of actions that bolster and further support their beliefs. We investigated contentious political issues including the proximity of a proposed Islamic community center relative to the former World Trade Center site, area that disputed territories in Israel occupy, and crowd size at a gay pride rally and anti-abortion demonstration. Conservatism predicted the degree to which specific issues threatened beliefs; moreover, conservatives visually represented the threatening information as more extreme which predicted political actions intended to support their beliefs. We discuss threat exaggeration as a strategy people use to mobilize political action and regulate responses to threat.

### **B1c. Reactance versus rationalization: Divergent responses to restrictive policies**

Kristin Laurin<sup>1</sup> Aaron Kay<sup>2</sup> & Gavan Fitzsimons<sup>2</sup>

<sup>1</sup>*Stanford University*, <sup>2</sup>*Duke University*

How do people cope with policies that constrain or restrict them? This research explores the conditions that favor two opposing reactions to such policies. On the one hand, people may rationalize these policies - cast them in an excessively positive light, and discount the desirability of the now-prohibited behavior. On the other hand, people may react against these policies, casting them in an excessively negative light and exaggerating the desirability of the now-prohibited behavior. The studies I describe here indicate that these divergent responses may be guided both by people's beliefs about the certainty of the policy in question, as well as by their mode of information processing.

### **B1d. The politics of self-enhancement**

Peter H. Ditto<sup>1</sup> & Sean P. Wojcik<sup>1</sup>

<sup>1</sup>*University of California, Irvine*

Psychologists have long recognized that self-enhancement motivation shapes self-relevant beliefs (e.g., how our abilities compare to those of others). In this talk we provide evidence for a similar effect on political beliefs, leading people high in self-enhancement motivation to favor ideological positions that portray them in a positive light. In a large internet sample, a measure of self-deceptive self-enhancement predicted both self-identified conservatism and a host of specific economically conservative opinions (e.g., that the government favors unproductive people, support for the Tea Party, opposition to tax increases, favoring Romney over Obama for President). Political conservatism was also positively associated with responses on several standard measures of self-enhancement (e.g., the better-than-average effect). Implications and limitations of these findings will be discussed.

## ***Symposium B2 – Golden Gate 5 – 11:15am-12:30pm***

### **Determinants and Mechanisms of Effort Investment**

Michael Richter<sup>1</sup>

<sup>1</sup>*University of Geneva*

Symposium abstract: Effort is a central parameter of behavior that is determined in the motivation process. The symposium will provide an overview over recent research on effort by bringing together scientists from four laboratories from the US and Europe. They will examine effort-related processes from different perspectives by presenting multidisciplinary empirical work that has employed different methods and measures. Guido H.E. Gendolla will start with a presentation on the impact of implicit and explicit affective primes on effort-related cardiovascular response. Claire Zedelius will present studies on the link between reward primes and efficient effort investment. Samuele Marcora will discuss the impact of mental fatigue on physical effort introducing a brain training method that reduces the negative effects of fatigue. Michael Richter will present data on the question whether effort is driven by energy conservation concerns. Michael T. Treadway will conclude the session by presenting research on neuropsychological mechanisms underlying effort-related cost/benefit decisions.

### **B2a. The effects of implicit effect on trying harder: New insights**

Guido H. E. Gendolla<sup>1</sup>

<sup>1</sup>*University of Geneva*

Extending recently published research on the implicit-affect-priming-effort model (IAPE) (Gendolla, 2012) we report a series of new experiments investigating the role of affective stimuli on resource mobilization. Those studies contrasted the impact of implicit and explicit affective cues and the impact of different types of negative affect on effort-related cardiac response during the performance of cognitive tasks. Enlarging our previous studies, and further supporting the IAPE model, we have found that (1) different types of negative implicit affect (sadness, anger, fear) have different effects on effort mobilization because they have different effects on experienced task demand. (2) The effects of explicitly presented affective stimuli on resource mobilization are opposite to those of implicitly processed affective cues. This suggests that implicit (automatic) and explicit (controlled) processing of affective stimuli has different effects on motivation and behavior. Implications for theories about self-regulation, implicit affect, and implicit motivation are discussed.

### **B2b. How conscious and unconscious reward processing affect strategic allocation of effort**

Claire Zedelius<sup>1</sup>

<sup>1</sup>*University of California, Santa Barbara*

Research on decision-making and motivation has shown that people are remarkably efficient in investing effort to attain rewards. The present research investigated the role of consciousness in strategic effort investment. We assessed performance on effortful working memory tasks incentivized by high and low rewards. To disentangle conscious and unconscious reward processing, rewards were presented either supraliminal or subliminally. Across experiments, we also varied when rewards were presented, and whether or not they were attainable. The results showed that, while both consciously and unconsciously perceived high (vs. low) rewards generally improve performance, there are notable differences. First, when rewards are presented during task execution, conscious—but not unconscious—high rewards sometimes impair performance, likely due to distraction. On the other hand, conscious reward processing is found to be advantageous for enhancing effort strategically (i.e., based on combined value and attainability), while unconscious processing can lead to wasted effort for unattainable rewards.

### **B2c. Acute and chronic effects of mental fatigue on physical performance**

Samuele Marcora<sup>1</sup>

<sup>1</sup>*University of Kent*

It is well known that prolonged mental exertion reduces cognitive performance. Here, we will review the acute effects of this mental fatigue on physical endurance and other components of physical performance. Furthermore, we will present a new brain training method to increase resistance to mental fatigue and improve physical endurance.

### **B2d. Energy conservation effects in hand grip tasks: The impact of task difficulty on exerted muscle force.**

Michael Richter<sup>1</sup> and Joséphine Stanek<sup>1</sup>

<sup>1</sup>*University of Geneva, Switzerland*

We will present three studies that tested motivational intensity theory's (Brehm & Self, 1989) basic prediction that effort mobilization is governed by an energy conservation principle. In all studies, participants performed various difficulty levels of a hand grip task and could earn a small monetary reward in each trial by exceeding a force standard. In line with the idea of energy conservation, the results showed that invested energy, assessed as exerted grip force, was a direct function of task difficulty. However, conflicting with the postulated energy conservation principle, participants invested more energy than required and invested energy even if task success was impossible. Implications for theories on effort mobilization will be discussed.

### **B2e. Neural mechanisms for effort-based computations and the pathophysiology of anhedonia**

Michael T. Treadway<sup>1,2</sup>

<sup>1</sup>*McLean Hospital/Harvard Medical School*, <sup>2</sup>*Emory University*

Recent research has increasingly identified blunted motivation and impaired cost/benefit decision-making as a core symptom domain in disorders such as depression and schizophrenia. In this talk, I will review several recent studies exploring the neural underpinnings of effort-based decision-making in healthy and psychiatric populations.

## Symposium Session C

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### ***Symposium C1 – Golden Gate 4 – 5:00-6:15pm***

#### **More Ways That Mindsets Matter: New Perspectives in Lay Theory Research**

Patricia Chen<sup>1</sup> and Anne Wilson<sup>2</sup>

<sup>1</sup>*University of Michigan*, <sup>2</sup>*Wilfrid Laurier University*

Lay theories research, often associated with the dichotomy between fixed (entity) and growth (incremental) mindsets, exemplifies how inner beliefs can have powerful motivational effects. In this symposium, we showcase recent empirical research that exemplifies new theoretical and practical directions. We demonstrate how students' theories of intelligence shape their learning strategies and self-assessments (Ehrlinger), and how perceptions of their professors' theories influence women and minorities' pursuit of scientific research careers (Rattan, Boggs, & Ambady). We then discuss how our lay theories interact with the choices available to us to affect persistence (Chen, Schwarz, & Ellsworth), and close by examining how temporal appraisal goals can shift the lay theories people endorse (Wilson, Leith, Ward, Giacomini, & Ehrlinger). Our symposium highlights the implications of lay theories research for important societal issues, ranging from education and minority representation in science to legal policies, and suggests exciting future directions in this ever-expanding field of inquiry.

#### **C1a. How theories of intelligence shape learning strategies and success**

Joyce Ehrlinger<sup>1</sup>

<sup>1</sup>*Washington State University*

Knowing the limitations of one's current skills and knowledge is important for learning. I provide evidence that students' theories of intelligence impact their allocation of attention and their choices during learning. Collectively, these differences leave students with an incremental view of intelligence with greater insight into their level of learning and, as a result, promote improved learning relative to an entity view of intelligence. Across several studies, incremental theorists show greater willingness than entity theorists to use learning strategies, such as self-quizzing, that provide metacognitive insight. Not surprisingly, then, incremental theorists offer more accurate, less overconfident, estimates of their performance on tests of learning, compared to entity theorists. Implications for promoting accurate self-assessments and improved learning will be discussed.

#### **C1b. Underrepresented students' perceptions of professors' scientific aptitude beliefs predict their sense of belonging in scientific research careers**

Aneeta Rattan<sup>1</sup>, Carol L. Boggs<sup>2</sup>, and Nalini Ambady<sup>3</sup>

<sup>1</sup>*London Business School*, <sup>2</sup>*University of South Carolina*, <sup>3</sup>*Stanford University*

The underrepresentation of women and minorities in scientific research careers impairs innovation, economic security, and national defense. We hypothesized that a key factor in attrition from scientific research careers is underrepresented students' perceptions of their professor's beliefs - whether they think their professors believe that virtually everyone or not everyone can have high scientific aptitude. Two correlational studies and one experiment showed that underrepresented students who believed professors held a "not everyone" belief saw their professors as less valuing of diversity, were less likely to feel that they belonged in scientific research careers, were less likely to want to pursue independent research, and received lower final course grades (despite equal initial performance). This research shows that factors other than negative group-specific stereotypes can induce psychological processes that ultimately reduce students' pursuit of scientific research careers. We discuss implications for intervening to address females' and minorities' underrepresentation in scientific research careers.

#### **C1c. When quitters don't quite quit: Putting lay theories into context**

Patricia Chen<sup>1</sup>, Norbert Schwarz<sup>1</sup>, and Pheobe C. Ellsworth<sup>1</sup>

*University of Michigan*

In four studies, we examined how the choice alternatives available to problem solvers interact with their lay theories of intelligence to produce differences in persistence. Past laboratory studies that restrict problem solvers' choices between continuing or quitting an activity find that, under difficulty or failure, entity theorists quit more and persist less than their incremental counterparts. We replicate these well-established differences when offering participants the standard dichotomous choice options. However, expanding the choices that problem solvers have to include the

option of switching problem eliminates these differences. The “entity-quitters and incremental-persisters” dichotomy is, thus, conditional on a specific problem-solving context, and may not hold when problem solvers’ response alternatives are expanded beyond the standard paradigm. Our findings empower those in education and organizations to consider the choices that people think they have at their disposal – as this could very well mean the difference between them giving up or trying harder.

#### **C1d. Leopards’ spots and turning new leaf: People’s temporal appraisal goals influence their strategic endorsement of incremental and entity lay theories.**

Anne E. Wilson<sup>1</sup>, Scott Leith<sup>1</sup>, Cindy Ward<sup>1</sup>, Miranda Giacomini<sup>1</sup>, and Joyce Ehrlinger<sup>2</sup>

<sup>1</sup>*Wilfrid Laurier University*, <sup>2</sup>*Washington State University*

When people evaluate the qualities of the self and others, it is not in a temporal vacuum: they must consider information accrued across time and weigh the relevance of recent and distant attributes and actions. We present evidence that people’s lay theories guide their reconstruction of remembered selves and events. Moreover, people sometimes encounter temporal information that they are particularly motivated to deem relevant or irrelevant to present judgments. We demonstrate how people’s present goals (the desire to support preferred conclusions about the self, important others, or threatening others) affects their tendency to strategically shift toward either an entity or incremental lay theory. By strategically endorsing a lay theory of stability or malleability, people can selectively include desired temporal information in present evaluations, while excluding unwanted information. Three studies show that participants strategically shift lay theories to regulate temporal appraisals of self, political candidates, and a formerly convicted sex offender.

### ***Symposium C2 – Golden Gate 5 – 5:00-6:15pm***

#### **Goal Engagement and Vitality: Implicit, Neural, and Contextual Influences**

Idit Shalev<sup>1</sup> and Marieke Roskes<sup>1</sup>

<sup>1</sup>*Ben Gurion University of the Negev*

Do we have control over our energy level? When does goal striving boost vitality or leave us exhausted? Which processes underlie deterioration and stimulation of performance and how can we manage our resources efficiently? In this symposium we will discuss explicit and implicit motivational processes that deplete and nourish energy. On the one hand we address the effects of bodily sensations and self-regulation failure on depletion and cognitive control. On the other hand we present findings on the role of need satisfaction and conflicting goals that shed light on conditions that nourish energy and enhance performance. Taken together, the symposium aims to discuss when and why motivational processes can be depleting, and what can be done about it.

#### **C2a. Implicit energy loss: Embodied dryness cues influence vitality and depletion**

Idit Shalev<sup>1</sup> and Ben Gurion<sup>1</sup>

<sup>1</sup>*University of the Negev*

Research has recognized that thirst motivates beverage consumption, however little is known of the consequences of dryness-related cues and experienced energy. Based on the embodied cognition view and motivational perspective for energy, four studies examined the idea that activation of different levels of the dryness-thirst metaphor (e.g., semantic primes, visual images, or physical thirst) will influence perceived energy. In Study 1, participants primed with dryness-related concepts reported greater physical thirst and tiredness and lower subjective vitality. In Study 2, participants who were physically thirsty were less persistent in investing effort in an unsolvable anagrams task. In Study 3, images of arid land influenced time preference regarding when to begin a task. Finally, in Studies 4a and 4b, exposure to the names of dryness-related products influenced impressions of the vitality of a target person. Overall, the findings suggest that physical or conceptual dryness-related cues influence perceived energy and performance.

#### **C2b. Autonomous motivation enhances self-regulation by promoting sensitivity and receptivity to self-control conflict**

Lisa Legault<sup>1</sup>

<sup>1</sup>*Clarkson University*

Four decades of research in Self-Determination Theory have suggested that autonomous motivation promotes self-regulatory success in a wide-range of tasks and life domains. However, there has been little investigation into the

precise mechanisms involved in this fundamental effect. In this research, I explore the relationship between autonomous motivation and goal regulation by assessing an important neuro-affective signal of self-control failure – the Error Related Negativity (ERN). Across several studies using various instantiations of autonomy (including cross-sectional and experimental methods; N=450), data converge to demonstrate a link between autonomous motivation and sensitivity to errors and conflict, including basic self-control failures and errors in inhibiting prejudiced responses. That is, under conditions of autonomous (but not controlled) motivation, individuals experience heightened attunement to self-control conflict, which predicts self-control improvement. The role of autonomy in promoting openness and responsiveness to various self-control errors and failures (including performance errors and biased responding) is also examined.

### **C2c. Implicit and explicit autonomy disposition, basic need for autonomy satisfaction and the effects of their interplay on motivation and vitality**

Julia Schüler<sup>1</sup>

<sup>1</sup>*University of Bern*

Previous research showed that the effects of basic need for competence and social relatedness satisfaction (self-determination theory, Deci & Ryan, 2000) on well-being are moderated by the corresponding implicit achievement and affiliation motives (dispositional motive approach, McClelland, 1985), respectively. In the present research, a first study found that also the effect of basic need for autonomy satisfaction on intrinsic motivation is moderated by a corresponding implicit autonomy disposition (operationalized by two different measures). A second study showed that perceived autonomy-support enhances autonomy satisfaction in athletes, which in turn leads to vitality and positive affect. We further investigated implicit and explicit autonomy dispositions as moderators in this mediation model and found that only the former influences the effects of autonomy satisfaction on well-being.

### **C2d. Separation of goals across contexts facilitates goal engagement and performance: The case of mental context change**

E. J. Masicampo<sup>1</sup>

<sup>1</sup>*Wake Forest University*

When multiple goals are active in the mind, those goals can compete and interfere, hindering goal focus and performance. The present talk introduces the hypothesis that such interference is less likely if the pursuit of multiple goals is spread out across different contexts. Indeed, many motivational and cognitive processes are linked to and activated by contextual cues. Therefore, to assign one's goals to different contexts and to change one's context in between pursuit of one goal and pursuit of another may counteract competition between goals. This talk describes three experiments in support of the hypothesis that mental context change prior to pursuing a goal can counteract interference from other, previously active goals, thereby enhancing goal engagement and performance. The talk also describes preliminary evidence that goal pursuit is enhanced when goals are separated across physical space and across time.

### **C2e. Constraints that help or hinder creative performance: A motivational approach**

Marieke Roskes<sup>1</sup> and Ben Gurion<sup>1</sup>

<sup>1</sup>*University of the Negev*

Threatening situations, in which people fear negative outcomes or failure, evoke avoidance motivation. Avoidance motivation, in turn, evokes anxiety, a systematic and effortful way of information processing, and relates to reduced intrinsic motivation. For these reasons, avoidance motivation has been associated with negative consequences such as performance decrements, resource depletion, and reduced wellbeing. Particularly in the domain of creativity, avoidance motivation has detrimental effects, which can be problematic in financially turbulent times when people fear for their jobs and financial security. However, particularly in such threatening times creativity may be crucial to innovate, adapt to changing demands, and stay ahead of competitors. I propose a framework describing how different types of constraints in the workplace affect creative performance under approach and avoidance motivation. Understanding the impact of different types of constraints is needed to reduce the negative consequences of avoidance motivation and develop strategies for maximizing creativity in the workplace.

## Poster Session

6:15-7:45pm

Golden Gate 6-8

Posters may be set up any time after 1pm

### **1. Readers' openness moderates the transmission of inspiration from writer to reader**

Victoria C. Oleynick<sup>1</sup>, Todd M. Thrash<sup>1</sup>, Emil G. Moldovan<sup>1</sup>, and Laura A. Maruskin<sup>2</sup>

<sup>1</sup>*College of William and Mary*, <sup>2</sup>*University of California, Berkeley*

We examined the transmission of affective and motivational states from writer to reader. We predicted that Positive Affect (PA) and Negative Affect (NA) in writers would predict PA and NA in readers, respectively, due to emotional contagion processes. Writer inspiration, however, was not expected to predict inspiration in the average reader. Much as trait openness is a predictor of inspiration in writers, we expected reader openness to moderate the transmission of inspiration from writer to reader, such that writer inspiration predicts reader inspiration only for readers high in openness. Writers in our sample wrote one poem and reported their affect and inspiration. A separate sample then read each poem and completed measures of these same variables. All hypotheses were supported, providing evidence that there are individual differences in susceptibility to specific "motivational contagion" processes.

### **2. Motivation similarity and level of social intimacy in undergraduate studies**

Jennifer S. McDonald<sup>1</sup> and Tera D. Letzring<sup>1</sup>

<sup>1</sup>*Idaho State University*

Similarity of personality between partners predicts relationship quality in romantic relationships, however it is unknown if motives as expressed through personal values are related to relationship quality overall. Personal values are cognitive representations of motives. Social intimacy (relationship closeness) is associated with greater psychological and physical health. The current study examined the association between value similarity and social intimacy of acquaintances in 150 undergraduate students. We predicted more similar personal values between partners would relate to higher combined perceived relationship closeness. Groups of three acquaintances; each acquainted for 6 months or longer completed the Schwartz Value Survey (SVS, Schwartz,) and Social Intimacy Scale (MSIS, Miller, 1982) to measure personal values and relationship closeness, respectively. Value similarity and relationship closeness were positively correlated  $r=.328$ ,  $p<.001$ . It appears the more similar personal values are between two people, the closer the relationship is perceived to be.

### **3. Effects of monetary incentives on adherence to aerobic exercise: A randomized pilot study**

David M. Williams<sup>1</sup>, Mariah Lohse<sup>1</sup>, Sam Fricchione<sup>1</sup>, Kelley Strohacker<sup>1</sup>, and Omar Galárraga<sup>1</sup>

<sup>1</sup>*Brown University*

Background/Context: Prior research has suggested that aerobic exercise can be increased through use of monetary incentives. However, exercise behavior tends to return to baseline following removal of incentives, and ongoing provision of moderate-to-large incentives is not financially sustainable. Study Objectives: To test proof-of-concept for effects of small monetary incentives on exercise-related energy expenditure. Methods/Design: Participants (N=22) were previously low-active Brown University students interested in beginning a program of regular exercise. Participants were randomly assigned to either cash incentive (\$0.01 per 4 calories expended up to 2000 kcals/week) or no-incentive conditions. Exercise was monitored over 12 weeks via fitness-center swipe-card data, as well as participant-generated photos of exercise equipment caloric expenditure displays. Results: Results trended toward greater exercise-related caloric expenditure in the incentive condition,  $F(1,20) = 2.91$ ,  $p = .10$ . Conclusions: Findings suggest small monetary incentives may improve adherence to exercise programs. Further research is needed to demonstrate reliability and long-term effects.

### **4. Would you rather be a big frog in a small pond? Examining competition entry decisions in the context of the frog-pond effect**

Kaidi Wu<sup>1</sup>, Stephen M. Garcia<sup>1</sup>, and Shirli Kopelman<sup>1</sup>

<sup>1</sup>*University of Michigan*

The Frog-Pond Effect (FPE) refers to that students who perform well at less selective schools evaluate themselves more favorably than equally capable students who perform poorly at selective schools (Marsh, 1987). FPE occurs because individuals rely on local intragroup comparison more than abstract intergroup comparison (Zell & Alicke, 2009). While past literature has focused upon self-evaluation after entering a competition environment, the present

study examines whether people prefer performing well in a less selective group to performing poorly in a selective group as a choice of competition entry. Among 45 MTurk participants, 66.7% favored being above-average in a less selective group, whereas only 33.3% chose otherwise,  $\chi^2(1)=5.00, p=.03$ . Logistic regression analyses confirmed intragroup comparison as a significant predictor of entry decision,  $\beta=2.09, p=.02, OR=8.07 [1.37, 47.58]$ , but not intergroup comparison. Together, findings revealed an a priori preference of being the “big frog in a small pond” fueled by intragroup comparison.

### **5. Bullying and basic needs: The consequences of victimization on academic motivation**

Adena Young-Jones<sup>1</sup>, Asia Hulse<sup>1</sup>, Jacquelyn Byrket<sup>1</sup>, Trulea Fletcher<sup>1</sup> and James S. Sly<sup>1</sup>

<sup>1</sup>Missouri State University,

Bullying has been evaluated through investigations in primary education; ironically, minimal research exists in higher education. The current study evaluated college students' experiences with bullying and its relation to several constructs known to impact academic success. Participants (N = 130) completed a Perceptions of Bullying Scale, Basic Need Satisfaction Scale, Academic Motivation Scale, Perceived Social Support Scale, Perceived Stress Scale, and a demographic data form. A series of independent t-tests were run to compare mean scores of victims to non-victimized students. Results indicated current bullying victims have significantly lower overall academic motivation than non-victims, significantly lower autonomy than non-victims, and significantly lower competence than non-victims. These findings suggest the effects of victimization can negatively impact college life and education. Specifically, decreased academic motivation could potentially lead to poor academic performance or the decision to drop-out, both of which are concerns for academic institutions.

### **6. Seniors coasting to the finish: Academic motivation in the last year of college**

Trulea Fletcher<sup>1</sup>, Adena Young-Jones<sup>1</sup>, Jacqueline Byrket<sup>1</sup>, and Kayla Jordan<sup>1</sup>

<sup>1</sup>Missouri State University

Current research defines senioritis as a false sense of security towards the future and/or a significant lack of motivation. Building on Self-Determination Theory, in which motivation is a function of basic psychological needs, senioritis could be a result of poor levels of autonomy, competence, and/or relatedness. The present investigation explored the relationship of stress, social support, and self-determined motivation. Undergraduate students completed an online survey containing the Basic Psychological Needs Scale, Academic Motivation Scale, Perceived Social Support Scale, Perceived Stress Scale, Inventory of Senioritis Perceptions, and a demographics questionnaire. Motivation scores were negatively correlated with perceived social support scores. Additionally, results showed upperclassmen held greater negative attitudes than lowerclassmen. These results suggest a link between senioritis and satisfaction of the basic psychological needs. They also indicate senioritis is a complicated construct and requires further investigation.

### **7. The role of academic help-seeking attitudes, achievement goal orientations, and dissertation self-efficacy in dissertation progress**

Tisha Colvin, PhD<sup>1</sup>

<sup>1</sup>University of Memphis

The current study explored socialization and educational psychological variables in relation to dissertation progress. The primary research questions were 1) What is the relationship between academic help-seeking attitudes, achievement goal orientations, dissertation self-efficacy, and dissertation progress beyond academic discipline, enrollment status, and student involvement in research and teaching assistantships? 2) Is there a significant difference between the academic help-seeking attitudes of PhD candidates and PhD graduates? 3) Is there a significant difference in academic help-seeking attitudes, achievement goal orientations, dissertation self-efficacy, and dissertation progress based on academic discipline? Participants were two groups (N = 445) from 92 majors and 46 invited universities: PhD candidates (N= 236) and PhD graduates (N = 209). Results revealed dissertation self-efficacy to significantly and positively predict dissertation progress; no significant difference between academic help-seeking attitudes of PhD candidates and graduates; and significant difference of educational psychological variables of PhD candidates based on academic discipline.

### **8. The importance of motivation as predictor of mathematical competence in PISA 2003 and 2004**

Katharina Kriegbaum<sup>1</sup>, Malte Jansen<sup>1</sup>, and Birgit Spinath<sup>1</sup>

<sup>1</sup>Heidelberg University

This study examined to which extent different motivational constructs contribute to the prediction of mathematical competence in PISA beyond intelligence and prior achievement. Different from previous studies using PISA data,

we employed a one-year longitudinal approach on the basis of PISA 2003 and 2004. The sample consisted of N = 6,020 fifteen-year-old German students who gave self-reports on math specific self-concept, self-efficacy, interest, and goal orientations. Data were analyzed using structural equation models. Cross-sectionally, all motivational constructs incrementally contributed to the prediction of mathematical competence beyond intelligence (explained variance: 1% - 29%). After controlling for intelligence and prior achievement, self-efficacy, self-concept, interest, and learning goals still significantly predicted subsequent mathematical competence. Relative weights analyses showed that although intelligence (cross-sectional) and prior achievement (longitudinal) explained most of the variance in mathematical competence, motivational constructs too were substantial predictors. These results confirm that motivation plays an important role when predicting academic achievement.

### **9. Adapting to things you cannot change and changing the things you can**

Patricia Chen<sup>1</sup>, Alexander McBairty<sup>1</sup>, Yuching Lin<sup>1</sup>, Zhen Liu<sup>1</sup>, and Phoebe C. Ellsworth<sup>1</sup>

<sup>1</sup>*University of Michigan*

Three studies (143 USA adults, 79 undergraduates) examined the effects that lay theories about the environment have on people's adaptive versus proactive behavioral intentions. We hypothesized that people are more proactive when they perceive their environments as being changeable, but more adaptive when they perceive their environments as fixed. Studies 1 and 2 manipulated people's beliefs about the changeability of their general and context-specific environments, respectively. Participants who believed environments to be changeable were more likely to react proactively towards a work conflict scenario and vice versa. These effects were not due to beliefs about personal changeability. Study 3 established the reverse association between adaptive/ proactive behaviors and lay theories. College students read an article highlighting the adaptiveness of either behavior. Those in the proactive condition believed environments to be more malleable than those in the adaptive condition, whereas beliefs about people and intelligence remained the same.

### **10. Belief-focused solutions for cultivating students' passion towards their subjects**

Yuching Lin<sup>1</sup>, Patricia Chen<sup>1</sup>, and Frank J. Yates<sup>1</sup>

<sup>1</sup>*University of Michigan*

Recently, high attrition rates for science, technology, engineering, and math majors have garnered attention from news media and researchers alike. While much literature focused on factors that improve academic performance in order to decrease attrition, we considered a different angle – how to increase students' passion towards their subjects. Our survey with undergraduates across 7 departments measured participants' lay theories and their beliefs about how to promote passion towards one's major. Students who endorsed an incremental "develop" theory of passion were more likely to suggest personal effort and experience as their method-of-choice for cultivating passion. Students who endorsed a "fit" theory were more likely to emphasize the influence of others, such as instructors or peers. We present qualitative analyses of suggestions our participants gave for students and institutions to cultivate passion. Our study thus offers preliminary evidence of how to tailor interventions to effectively target students with different fundamental beliefs.

### **11. What drives teachers to improve? The role of teacher mindset in professional learning**

Greg Philip Gero<sup>1</sup>

<sup>1</sup>*Claremont Graduate University*

This study was designed to investigate how teachers' professional learning is influenced by their underlying goals and beliefs. The study tested a path model that attempts to explain variation in teachers' professional learning. A new variable, teacher mindset, was developed to operationalize teachers' conceptions about teaching ability. The model explores how teacher mindset, self-theories, teacher efficacy, and goal orientation interact to predict teachers' participation in professional learning activities. 312 teachers from 92 elementary schools in Los Angeles participated in a survey designed and pilot-tested by the researcher. The path analyses provided strong support for the hypothesized model. Both in regression analyses and the path analyses, teacher mindset emerged as a significant predictor more frequently than any other variable. The findings suggest that the improvement of teachers may depend on the variables highlighted in this study, most notably teacher mindset. Implications for teacher education, professional development, and policy are discussed.

## **12. Teacher and student predictors of students' perceived teacher competence**

Angela D. Miller<sup>1</sup>, Tamera B. Murdock<sup>2</sup>, Erin M. Ramirez<sup>1</sup>

<sup>1</sup>*George Mason University*, <sup>2</sup>*University of Missouri, Kansas City*

Self-efficacy is a robust construct in motivational psychology, predicting behavior and achievement across numerous domains (Pajares, 1996). We examined the predictive ability of teachers' self-efficacy for students' perceived teacher competence after controlling for the students own motivation and teachers' years of teaching experience. Data were collected at 2 time points from 53 teachers and 435 students in high school math and science classrooms. Students rated subject specific mastery and performance goals and self-efficacy; teachers reported their years of teaching experience and teaching self-efficacy. Students later rated perceived teacher competence. After controlling for students' self-efficacy and personal mastery goals and personal performance goals (n.s.) in a multi-level model, decreased teaching experience and increased teaching self-efficacy were significantly associated with perceived competence by students. Results suggest that teachers' efficacy for teaching influences students' perceptions, either because of the confidence they project, or because teachers' efficacy is a reflection of the students in the classroom.

## **13. It's not what you do after school; it's why you do it: Motivational profiles for after-school activities and psychosocial adjustment among disadvantaged youth**

Geneviève Taylor<sup>1</sup>, Frédéric Guay<sup>2</sup>, Stéphane Perreault<sup>3</sup>, Caroline Senécal<sup>2</sup>, and Frank Vitaro<sup>4</sup>

<sup>1</sup>*Université du Québec à Montréal*, <sup>2</sup>*Université Laval*, <sup>3</sup>*Université du Québec Trois-Rivières*, <sup>4</sup>*Université de Montréal*

For students from disadvantaged neighborhoods, participating in after-school activities (ASA's) is positively associated with academic motivation, but negatively related to dropout (Fredricks & Eccles, 2010). However, the mechanisms that govern these relations are unclear. We therefore examined whether certain types of motivation for engaging in ASA's, according to Self-Determination Theory, were more beneficial for school and social adjustment. We assessed 995 high school students' autonomous motivation (AM) and controlled motivation (CM) for engaging in school and in ASA's. Three motivational profiles emerged. Students with a high AM-low CM profile for ASA's had higher academic motivation and less drug use than those with a low AM-low CM profile. Students with a high AM-high CM profile had more controlled academic motivation than those who practiced ASA's only for autonomous reasons. Results show that the quality of the motivation profile plays a role in the school and social adjustment of high school students.

## **14. Top performers in science: The relation of teaching patterns and motivation**

Stefanie Schmidtnr<sup>1</sup>, Anja Schiepe-Tiska<sup>1</sup>, and Manfred Prenzel<sup>1</sup>

<sup>1</sup>*Technische Universität München*

Due to a shortage of skilled workers in STEM professions, there is growing interest in promoting young talents in science. However, a large amount of top performing students in science show little interest in science (OECD, 2008). In order to stop this alarming development motivating science teaching methods are required (Kobarg et al., 2011). This poster examines the teaching methods reported by motivated and unmotivated top performers in science regarding hands-on activities, real-life applications and interactive teaching and learning using large-scale assessment data. Different teaching patterns are revealed by latent-class-analysis and their relation to motivational characteristics like interest, future-oriented motivation, personal value, and self-efficacy is examined. Results show that the relation between teaching methods and motivational characteristics differs according to the examined motivational characteristic and gender. In particular, real-life applications significantly correlate with enjoyment whereas - contrary to previous research - hands-on activities only weakly relate to various motivational characteristics.

## **15. Inquiry based learning methods affect students' attitudes towards science: A multilevel analysis**

Inga Simm<sup>1</sup> and Anja Schiepe-Tiskal<sup>1</sup>

<sup>1</sup>*Technische Universität München*

Inquiry based science teaching provides important opportunities to improve students' attitudes towards science. It is assumed that students' self-efficacy and self-concept in science are directly influenced by science teaching methods, such as hands-on activities and real-life applications (Doll & Prenzel, 2001). Moreover, composition of the class with regard to gender and socio-economic status indirectly affect students' attitudes. This assumption was tested using multilevel analyses. The analyses were conducted with German large-scale assessment data of N=9577 fifteen year old students. Results revealed a significant relation between real-life applications and students' self-concept and self-efficacy on the individual level. Moreover, the self-concept in science was strongly related to hands-on

activities. Regarding self-efficacy, teaching methods on class level explained more variance than the individual perception of each student. Also the composition of class was strongly related to self-efficacy. In sum, findings suggest an effect of particular teaching methods on students' attitudes towards science.

### **16. Changes in achievement goal states across manipulated time pressures**

Rachel E. Avery<sup>1</sup> and Chelsea Fisher<sup>1</sup>

<sup>1</sup>*University of Surry*

Research suggests that perceptions of time pressure predict achievement goal states (Beck&Schmidt, 2013) with pressure perceptions being negatively related to state-mastery-approach and positively related to state-performance-avoid. The current experiment, for the first time, manipulated time pressure using a within-subjects-design and examined changes in achievement goal pursuit. Participants took part in a word formation task under both low and high time constraints and their achievement goal states were measured during low-pressure, anticipated-high-pressure and actual-high-pressure respectively. Significant linear trends indicated that mastery-approach and mastery-avoid pursuit declined across the pressure points. However, a significant quadratic trend indicated that performance-avoid-pursuit declined from low-pressure to anticipated-high-pressure, but, then increased during actual-high-pressure. Performance-approach-pursuit showed no significant change. Findings suggest that under high-time-pressure participants were less motivated to focus on their own task specific competence, instead, were more motivated to focus on avoiding a demonstration of poor competence relative to others. Implications for motivational theory are presented.

### **17. Goal conflict and procrastination**

Edward Orehek<sup>1</sup> and Allison Shapik<sup>1</sup>

<sup>1</sup>*University of Pittsburgh*

When an individual is pursuing two goals, there may be conflict between those goals, making it difficult to pursue both simultaneously. When two goals are in conflict the individual will need to decide which goal to pursue first. When the goals are equally prioritized, this should cause individuals to procrastinate on both goals while he/she decides which to pursue first. In an online study and a lab study, we find that individuals procrastinate more when they are primed with two goals that are in conflict, over goals that are not in conflict. In an online study, we manipulated goal conflict by priming participants with compatible/incompatible goals and participants reported their predicted procrastination on each goal. In a lab study, participants were given the chance to study for a GRE practice test after we presented the two sections of the GRE as similar/dissimilar and procrastination was measured by time spent studying.

### **18. Why integrated regulation matters: An in-depth analysis of motivational regulations to support for charitable causes**

Kaspar Schattke<sup>1</sup>, Ronald Ferguson<sup>1</sup>, and Michèle Paulin<sup>1</sup>

<sup>1</sup>*Concordia University*

Although media research is blossoming, there is a lack of research on prosocial media. After exposure to an online Facebook appeal for the charitable event "Five Days for the Homeless", we investigated student's motivational regulations based on Self-Determination Theory. The aim of this research was to show that it is informative to include the often omitted integrated regulation in the analysis and to distinguish three sub-dimensions of intrinsic motivation. We assessed N=384 students' different forms of motivational regulations, their respective intentions to support the event, and followed up on N=149 students' self-reported behavior. Results showed that integrated, but not identified regulation, predicted supportive intentions as well as just one of the three sub-dimensions of intrinsic motivation. Mediation analyses revealed that both predictors translated into behavior, albeit only indirectly, through the intentions. The results highlight the added value of including integrated regulation and the three sub-divisions of intrinsic motivation.

### **19. Self-affirmation improves performance in an action crisis**

Mirjam Ghassemi<sup>1</sup> and Veronika Brandstätter<sup>1</sup>

<sup>1</sup>*University of Zurich*

More than 30 years ago, Klinger (1977, p. 137) compared the process of goal disengagement to a "psychic earthquake that will send shudders and rumbles through the person's life". A phase that may initiate the process of goal disengagement is the action crisis (Brandstätter & Schuler, 2013). Defined as an intra-psychic conflict between further goal pursuit and disengagement, recent studies suggest that this critical phase in goal striving can impair goal-related and unrelated performance (Brandstätter, Herrmann & Schuler, 2013; Ghassemi & Brandstätter, in

preparation). We present empirical evidence suggesting that a brief self-affirmation (Steele, 1988), a reminder of a person's self-integrity, might buffer these effects. Participants (n=79) experiencing an action crisis with respect to a personal goal were given the possibility to write about an unrelated, yet important value or worked on a control task. As predicted, self-affirmed participants subsequently performed better in an unrelated anagram task than did controls.

## **20. Failure to strive: Goal ambivalence moderates the effect of failure vs. success on motivation and performance**

Svenja Koletzko<sup>1</sup> and Veronika Brandstätter<sup>1</sup>

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When is failure in goal striving de-motivating and when does it instigate intensified effort? We combined research on symbolic self-completion theory applied to personal goals (Brunstein, 2000) with research on attitudinal and self-ambivalence (Riketta & Ziegler, 2008) to predict that goal ambivalence would moderate the effects of failure vs. success in a goal-related task on motivation for and performance in further goal-directed action. In a study with N = 102 high school students, we manipulated success vs. failure in a task framed as relevant to an important personal goal. Participants who had previously felt ambivalent about this goal reported lower motivation for a subsequent goal-relevant task when they received failure (vs. success) feedback about their performance on the first task. Further, failure indirectly had a negative effect on subsequent task performance through task motivation at high levels of ambivalence. Implications for both theoretical accounts and their integration are discussed.

## **21. Work enjoyment and team effectiveness: The mediating role of team commitment**

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The goal of this study is to examine the role of work enjoyment in teams. Although this concept has received increased attention over recent years, the consequences of work enjoyment at the team level remain unclear. The present study addresses this gap by investigating the relationships between work enjoyment and two dimensions of team effectiveness (i.e., team performance and team process improvement) and the mediating role of team commitment in these relationships. In other words, we put forward that work enjoyment may increase team commitment, which may enhance team effectiveness. Using a multisource approach and a team-level design, data were gathered from 82 teams (i.e., 394 members and their 82 immediate superiors) working in a Canadian public safety organization. The results support the mediation model according to which team commitment play a mediating role in the relationships that work enjoyment has with team performance and team process improvement. Overall, the findings of this study corroborate that work enjoyment may constitute a collective phenomenon and that organizations may benefit from fostering team members' work enjoyment.

## **22. Negotiating with punch: The effect of power motive congruence on buyers' flow experience and negotiation success**

John G. Vongas<sup>1</sup>, Kaspar Schattke<sup>1</sup>, Raghid Al Hajj<sup>1</sup>, Pauline Aldon<sup>1</sup>, and Robert Oppenheimer<sup>1</sup>

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Buyers and sellers routinely use power to alter each other's attitudes, and those having such a dispositional predilection – or power motive – are often successful negotiators. However, motives can be either implicit (impact on others is hedonic) or explicit (impact on others is normative), and psychologists purport that flow experience (Schüler, 2010) and goal attainment (Brunstein et al., 1998) ensue when both motive types are congruent. In a simulated negotiation involving 84 undergraduate management students paired in same-sex dyads, buyers queuing to purchase conference tickets were offered cheaper tickets from sellers who were no longer able to attend the conference. We found that buyers' power motive congruence led to higher flow experience and negotiation success with, interestingly, no main effects occurring for success. This pioneering study demonstrates that success materializes only when negotiators enjoy exercising power on others and believe that its exercise is socially desirable because of environmental incentives.

## **23. A friend in need is a friend indeed: Do unsupportive others increase self-control?**

Anna Vazeou-Nieuwenhuis<sup>1</sup>, Edward Orehek<sup>1</sup>, and Ellen Quick<sup>1</sup>

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Exercising self-control has been hailed as a fundamental human ability (Baumeister, Heatherton, & Tice, 1994). Individuals experience self-control difficulties frequently and such difficulties contribute to many societal problems, ranging from health management and financial hardship to addiction and even criminality. Not surprisingly, self-

control has been of longstanding interest to psychologists. Given that individuals often credit their outcomes to the presence of others, it seems remarkable that research on self-control and interpersonal relationships have met few attempts for integration, despite multiple calls in that direction (Feeney, 2004). Yet, for although this suggestion has been met with enthusiasm, what facets of interpersonal relationships affect self-control remains unclear. That is, although research suggests that interpersonal processes should affect self-control, it remains largely silent about why this may be the case to begin with. The present work offers counterintuitive data from multiple experiments, showing that encounters with socially unsupportive vs. supportive others increases self-control.

#### **24. Rest is not always the best: Flow-evoking activities promote recovering from depletion**

Anja Schiepe-Tiska<sup>1</sup> & Alex Bertrams<sup>2</sup>

<sup>1</sup>*Technische Universität München*, <sup>2</sup>*Universität Mannheim*

Self-control is assumed to be a limited resource that becomes drained with use. However, high motivation such as flow experience may compensate for the reduced ability to self-regulate. The flow state is among others characterized by a centering of attention and a loss of reflective self-consciousness. Hence, while experiencing flow, there is no need for controlling attention, which is one form of self-control (Schmeichel & Baumeister, 2010). Moreover, due to the loss of reflective self-consciousness, there may be no connection between the self and self-control effort. Two studies were conducted to test this relation. Students reported their state self-control and flow before and after they had worked on complex reading comprehension tasks. Results revealed that the more flow students experienced while they were working on the tasks the less depletion was reported.

#### **25. Freezing behavior in medical decision making: Effects of dispositional need for closure and training**

Arne Roets<sup>1</sup>, Elke Raman<sup>1</sup>, Stefan Heytens<sup>2</sup> & Dirk Avonts<sup>2</sup>

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An experimental study in 126 junior and senior medical students tested whether epistemic motivation (i.e., need for closure) and training affect epistemic freezing in medical decision making (i.e., maintaining an initial incorrect diagnosis when contradictory information becomes available). Participants completed two computerized diagnostic cases, receiving stepwise information about a patient, which gradually disconfirmed the most likely initial diagnosis. In each step, participants were asked for a (single) potential diagnosis. To measure decisional freezing, for each participant we calculated how many steps it took to abandon his or her initial, incorrect diagnosis and consider an alternative (regardless of its correctness). Results showed that for less experienced medical students, whether or not they maintain an initial, incorrect diagnosis depends on their level of epistemic motivation (i.e., NFC), whereas for more experienced students, such diagnostic freezing behaviors depend on epistemic ability.

#### **26. The facilitating effect of implementation intentions on effort-related cardiac activity.**

Laure Freydefont<sup>1,2</sup>, Peter M. Gollwitzer<sup>2</sup>, & Gabriele Oettingen<sup>2</sup>

<sup>1</sup>*University of Geneva*, <sup>2</sup>*New York University*

Although implementation intentions are known to facilitate goal attainment, the link between implementation intentions and effort mobilization is still uninvestigated. According to the motivational intensity theory (Brehm & Self, 1989), effort is mobilized proportionally to subjectively experienced task demand as long as success is possible and justified. The present study investigates the influence of implementation intentions on effort-related cardiac activity during task performance. Based on the psychophysiological literature (Obrist, 1981; Kelsey, 2012; Wright, 1996), we quantified effort intensity as performance-related changes in cardiac contractility force in terms of cardiac pre-ejection period (PEP). Results showed significantly weaker performance-related cardiac PEP responses by participants in the implementation intention condition compared to participants in the goal intention and control conditions. These findings suggest that the heightened task performance caused by implementation intentions is automatic as it leads to less effort expenditure during task performance (indicated by lowered PEP).

#### **27. The impact of implicit fearful faces on effort-related cardiac response**

Guido H.E. Gendolla<sup>1</sup> and Mathieu Chatelain<sup>1</sup>

<sup>1</sup>*University of Geneva*

Based on the implicit-affect-priming-effort model (IAPE; Gendolla, 2012) this study investigated the effect of fear primes on mental effort, operationalized as cardiac reactivity (pre-ejection-period, PEP), in a cognitive task. The IAPE model posits that fear is associated with the concept of “difficulty” and that anger and happiness are associated with the concept of “ease”. Consequently, activation of implicit fear should lead to experiences of higher subjective demand than both implicit anger and happiness. Given that resource mobilization is guided by a resource conservation principle, the most relevant information in achievement contexts is that of task demand—the amount of

effort invested is proportional to the subjective task demand as long as success is possible and justified (Brehm & Self, 1989). Consequently, as predicted, participants in the fear-prime condition showed stronger cardiac PEP reactivity than those in both the anger-prime and fear-prime conditions.

### **28. Implicit aging influences effort related cardiac response**

Athina Zafeiriou<sup>1</sup> and Guido H.E. Gendolla<sup>1</sup>

<sup>1</sup>*University of Geneva*

Implicitly processed stimuli can systematically influence human behavior (e.g. Bargh, 2006; Bargh & Chartrand, 1999). An explanatory frame for these results is ideomotor theory that proposes that behavior can directly result from the mere activation of a mental concept due to a direct perception-behavior link (Bargh & Chartrand, 1999). This experiment investigated the effect of implicit aging on behavior by focusing on the mobilization of mental effort operationalized as cardiac reactivity (pre-ejection period, PEP) in young participants during a cognitive task. A theory that could explain the influence of implicit primes on effort is the Implicit-Affect-Primes-Effort model (IAPE; Gendolla, 2012). This experiment is the first attempt to generalize the IAPE model using other than affective stimuli while considering the alternative mechanism of the direct perception-behavior link, already demonstrated in concept activation research. Results show a moderation of the prime effect by the prime presentation time that supports both theoretical frameworks.

### **29. The implicit affiliation motive moderates the cortisol response to psychological stress in high school students**

Mirko Wegner<sup>1</sup>, Julia Schüler<sup>1</sup>, & Henning Budde<sup>2</sup>

<sup>1</sup>*Universität Bern*, <sup>2</sup>*Medical School Hamburg*

It has been previously shown that the implicit affiliation motive leads to chronic health benefits. The underlying assumption for the present research was that the implicit affiliation motive also moderates the salivary cortisol response to acute psychological stress but not to exercise as a physical stressor. Fifty-nine adolescents aged  $M = 14.8$  years were randomly assigned to a psychological stress (intelligence testing), a moderate exercise (65-75% of HRmax), and a control condition (normal school lesson) each lasting 15 minutes. Participants' affiliation motives were assessed using the Operant Motive Test and salivary cortisol levels were measured pre and post stressor. We found that the strength of the affiliation motive negatively predicted cortisol reactions to acute psychological but not to physical stress when compared to a control group. The results suggest that the affiliation motive may also buffer the effects of acute psychological stress.

### **30. Individual differences in epistemic motivation and brain conflict monitoring activity**

Małgorzata Kossowska<sup>1</sup>, Gabriela Czarnek<sup>1</sup>, Eligiusz Wronka<sup>1</sup>, Mirosław Wyczesany<sup>1</sup>, and Marcin Bukowski<sup>1</sup>

<sup>1</sup>*Jagiellonian University*

It is well documented that motivation toward closure (NFC), defined as a desire for a quick and unambiguous answer to a question and an aversion to uncertainty, is linked to more structured, rigid, and persistent cognitive styles. However, neurocognitive correlates of NFC were never tested. Thus, we examined the hypothesis that NFC is associated with neurocognitive process for detecting discrepancies between response tendencies and one's higher level intentions, using event-related potentials. We found that greater NFC is associated with the lower conflict-related anterior cingulate activity, suggesting lower sensitivity to cues for altering a habitual response pattern and lower sensitivity to commit errors. This study provide evidence that high NFC acts as a bulwark against anxiety-producing uncertainty and minimizing the experience of error.

### **31. The impact of online feedback and image presentation on the energy investment in a hand grip task**

Josephine Stanek<sup>1</sup> and Michael Richter<sup>1</sup>

<sup>1</sup>*University of Geneva*

Motivational intensity theory predicts that the energy invested in a task equals the energy required to cope with task difficulty as long as success is possible and justified (Brehm & Self, 1989). Previous results show that energy investment is proportional to task difficulty but exceed the minimal energy required to cope with task difficulty. Study 1 tested the impact of online feedback on the energy invested during a handgrip task in a 2 (easy vs. difficult) x 2 (feedback online vs. no feedback) within-persons design (N=48). Study 2 tested the impact of image presentation in a 2 (easy vs. difficult) x 2 (image inactive vs. active) within-persons design (N=20). Congruent with the theory, less force was exerted during easy than difficult trials. Furthermore, less force was exerted and thus wasted in the trials with the online feedback in Study 1 and with the inactive image in Study 2.

### **32. Motives and parenting style – Does incongruence lead to inconsistency?**

Sabine Backes<sup>1</sup> and Martina Zemp<sup>1</sup>

<sup>1</sup>*University of Zurich*

In recent years it has been shown that incongruence between implicit and explicit motives has negative consequences for well-being and health behaviors. Because the power motive has long since been connected with becoming a teacher or a parent, we expected that incongruence between the explicit and implicit power motive is related to parenting behavior. More precisely, we hypothesized that incongruence is related to an inconsistent parenting style. We tested our hypothesis in a cross-sectional subsample of mothers that had children between nine and thirteen years, drawn from a larger longitudinal study on relationship satisfaction. Results were in line with our expectations. The more incongruence there was between the implicit and explicit power motive, the more inconsistent was the parenting style. More congruent mothers reported a less inconsistent parenting style. Implications, future directions and limitations are discussed.

### **33. On the intrinsic versus extrinsic nature of goals that are promoted by mothers using autonomy support versus conditional regard**

Kaitlyn M. Werner<sup>1</sup> and Frederick M. E. Grouzet<sup>1</sup>

<sup>1</sup>*University of Victoria*

Research in self-determination theory (SDT, Ryan & Deci, 2000) suggests that parental autonomy support (PAS vs. parental conditional regard; PCR) is associated with the development of intrinsic goals (vs. extrinsic goals). Using an experimental design, the current study sought to examine whether a goal that was promoted by mothers through PAS would be more intrinsic than when promoted through PCR. Participants were randomized into one of three conditions (PAS, PCR, neutral) and were asked to identify a goal that their mother promoted in the way corresponding to the condition. Results from regression analysis indicate that participants who have been asked to focus on PAS situations reported more examples of PAS than in other conditions, which was translated into identifying promoted goals that were considered more similar to intrinsic goals than extrinsic goals. These results will be discussed in the context of SDT and the dual valuing process model (Grouzet, 2013).

### **34. Why did you make that choice? Demographic differences in Americans' goal selection and motivation**

Paula Hervias<sup>1</sup>, Brianna Jaramillo<sup>1</sup>, Lorena Hernandez<sup>1</sup>, Jacob Shane<sup>1</sup>, and Jutta Heckhausen<sup>1</sup>

<sup>1</sup>*University of California, Irvine*

The Motivational Theory of Life-Span Development provides a theoretical framework for interpreting similarities and differences in the types of goals individuals choose to pursue and the reasons why these goals are deemed important to pursue (Heckhausen, Wrosch, & Schulz, 2010). The present study uses a nationally selected sample of 452 American adults to examine demographic differences in goal choice and motives. In particular, we compare men and women from different age groups (young adults 30-35 years, and middle-aged adults 49-53), ethnicities, and socioeconomic backgrounds to illustrate motivational and volitional patterns for engagement with socioeconomic status-related goal pursuits (social status, and financial success) and the desire to live a meaningful and complete life. Results support the Motivational Theory of Life-Span Development framework, and provide insight into how societal-based opportunities and expectations for pursuing particular goals serve to scaffold individuals' own choice and pursuit of life goals.

### **35. Limits of control: Effects of uncontrollability experiences on attentional control**

Marcin Bukowski<sup>1</sup>, Dariusz Asanowicz<sup>1</sup>, Anna Marzecová<sup>2</sup> & Juan Lupiáñez<sup>3</sup>

<sup>1</sup>*Jagiellonian University*, <sup>2</sup>*Leipzig University*, <sup>3</sup>*University of Granada*

We investigated the relation between experienced lack of personal control and the efficiency of cognitive control mechanisms. In two studies we examined the specific influence of various control deprivation experiences on the efficiency of attentional networks. We manipulated the experience of personal control by changing the proportion and sequential order of solvable and unsolvable tasks, obtaining high, mixed and low uncontrollability conditions. In Study 1 participants received false feedback on their performance and in Study 2 no feedback was administered. To evaluate efficiency of executive attention we used the Attentional Network Test. Results of both studies showed less efficient executive functioning under high (vs. low or moderate) levels of control deprivation. Additionally, when participants did not receive feedback and were asked to perform unsolvable tasks the effects of reduced efficiency of attentional control were more strongly pronounced. Mechanisms underlying the effects of various uncontrollability experiences on attentional control are discussed.

### **36. The moderation effect of other-oriented achievement motivation on relationship between gratitude and positive emotion**

Tadahiro Ito<sup>1</sup> and Hana Hirai<sup>1</sup>

<sup>1</sup>*Gakushuin University*

Asian people work and study hard in order to meet family members', peers', and close other people's expectations. Other-oriented achievement motivation is defined as personal striving to achieve for responding to others' expectations and showing feeling of gratitude. The purpose of this study was to examine a relationship between feeling of gratitude and positive emotion (e.g. happy) in everyday life. In particular, the attitude toward other-oriented motivation was supposed to moderate the relation.

Ninety five Japanese university students (53male, 42female) participated in 8 days' research with mobile phone. They answered questions about their present emotional states on the internet three times a day. Additionally, they responded to Self- and Other-oriented Achievement Motivation Scale. The result using hierarchical linear model supported that the feeling of gratitude had effect on general positive emotion. Importantly, female students who integrated self-oriented and other-oriented motivation (internalized other-oriented motivation) showed a strong relationship between gratitude and experiencing positive emotion.

### **37. Beyond conformity? When collective ideals motivate non-conforming responses**

Amit Goldenberg<sup>1</sup>, Tamar Saguy<sup>2</sup>, and Eran Halperin<sup>2</sup>

<sup>1</sup>*Stanford University*, <sup>2</sup>*Interdisciplinary Center in Herzliya*

People are often motivated to conform, doing what others do, and even feeling what others feel. However, we hypothesized that under certain circumstances, people would be motivated not only to resist conformity, but actually to exaggerate their non-conforming responses. In particular, we expected that when individuals believe that other in-group members are failing to live up to an emotional ideal (e.g., not feeling as guilty as they should), they would actually intensify rather than diminish their emotional responses. We tested this hypothesis in a series of five studies. In Studies 1 and 2 we examined the motivation for expressing non-conforming emotions by focusing on group-based guilt and anger. In Studies 3 and 4 we showed that participants' perceived appropriateness of collective guilt levels moderated the effect of non-conformity. Study 5 further examined the underlying mechanisms of this process. Taken together, these findings elaborate the motivations which lead individuals to non-conformity.

### **38. Rising up to the 'challenge'? The interactive role of need for closure and situational appraisals on information processing**

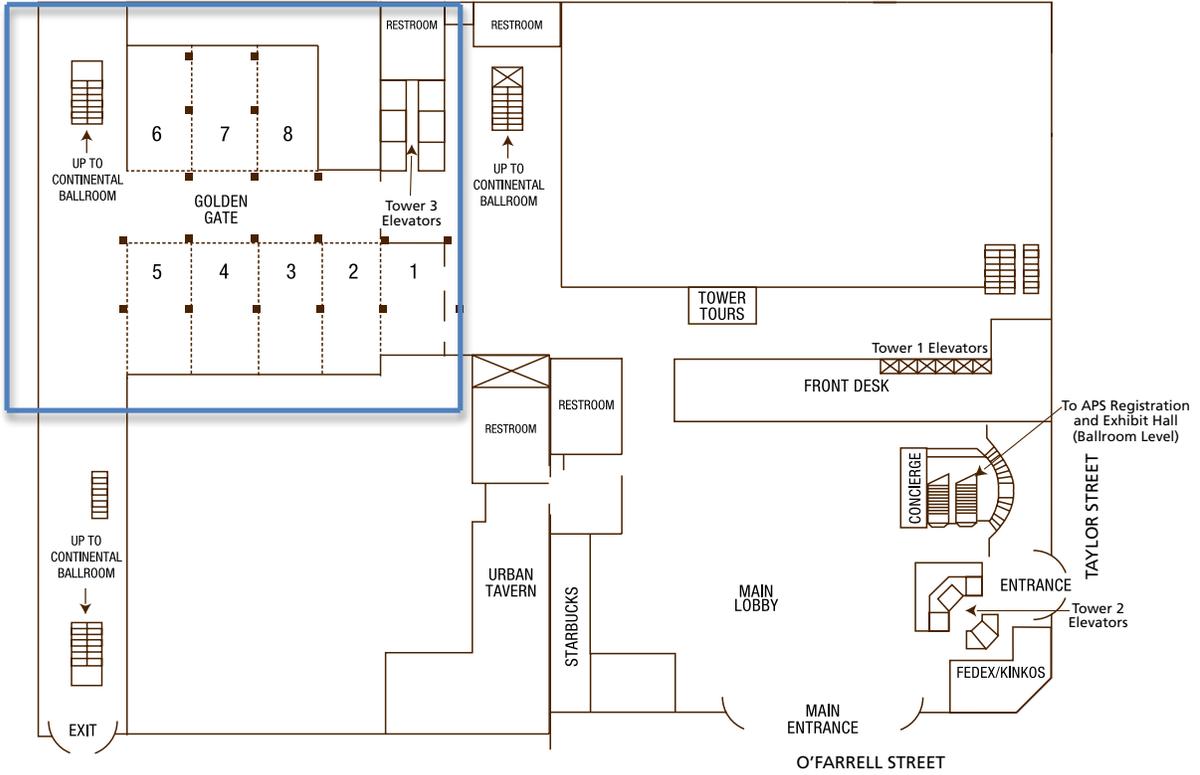
Sindhuja Sankaran<sup>1</sup>, Joanna Grzymała-Moszczyńska<sup>1</sup>, Agnieszka Strojny<sup>1</sup>, Pawel Strojny<sup>1</sup>, and Malgorzata Kossowska<sup>1</sup>

<sup>1</sup>*Jagiellonian University*

Research has indicated that for individuals who have high levels of NFC, the absence of closure causes a state of distress which in turn affects information processing. The premise of the present research is that when confronted with stressful situations, individuals appraise the same based on their personal resources to cope with the situation. The appraisal can occur in two directions – *Challenge* and *Threat*. The present set of studies thus aims to manipulate experiences of 'challenge' and 'threat' amongst participants and examine these effects on various information processing tasks. Emerging themes like self-efficacy, resource availability, perceived control and motivational levels from a qualitative study were used to develop various *challenge* and *threat* manipulations in a set of studies. In general, it was predicted that *challenge* mindsets would promote flexible processing while *threat* mindsets would promote rigid processing. Results however indicated that only low NFC individuals were susceptible to the *challenge/threat* manipulations following the basic prediction. Those individuals with high NFC levels regardless the manipulation always processed information 'rigidly'. The scope of this line of research extends to exploring the dynamic nature of situational appraisals and the processes involved in regulating such motivational states.

# Floor Plan

## Lobby Level



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