



# 21<sup>st</sup> EUROPEAN SOCIAL COGNITION NETWORK

Transfer of Knowledge Conference



Laboratoire de psychologie / université de BORDEAUX



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## ESCON 2019 BORDEAUX PROGRAM OVERVIEW

Room Cabernet	Room Malbec	Room Merlot	Room Sauvignon	
<b>Monday, September 2, 2019</b>				
10:30	<b>Welcome &amp; Registration</b> (Atrium, University entrance hall) Tea and Coffee (garden, outside – if the weather permits)			
13:00	<b>AGNES MOORS - Plenary Session</b> (Deniges Auditorium) <i>Toward a goal-directed explanation of suboptimal behavior</i>			
14:15	<b>S1: Approach-Avoidance</b>	<b>S2: Emotions</b>	<b>S3: Consumer Cognition</b>	<b>S4: Rebutal on "Implicit"</b>
15:45	Tea and Coffee Break (garden, outside the auditorium – if the weather permits)			
16:15	<b>S5: Approach-Avoidance</b>	<b>S6: Self</b>	<b>S7: Consumer Cognition</b>	<b>S8: Meta-Science</b>
17:20	<b>S9: Prejudice</b>	<b>S10: Self</b>	<b>S11: Moral Cognition</b>	<b>S12: IAT</b>
18:50	Free Time!			
20:30	<b>Dinner</b> (Le confidentiel, 80 quai des Chartrons)			
<b>Tuesday, September 3, 2019</b>				
8:45	<b>S13: Prejudice</b>	<b>S14: Self</b>	<b>S15: Evaluative Conditioning</b>	<b>S16: Trust</b>
10:15	Tea and Coffee Break (garden, outside the auditorium – if the weather permits)			
10:45	<b>ROLAND IMHOFF - Plenary Session</b> (Deniges Auditorium) <i>Rethinking the effect of similarity on judgments and categorization</i>			
12:00	Lunch break			
13:00	<b>S17: Power</b>	<b>S18: Self in Comparison</b>	<b>S19: Evaluative Conditioning</b>	<b>S20: Trust</b>
14h35	<b>S21: Grounded Cognition</b>	<b>S22: Self in Comparison</b>	<b>S23: Moral Cognition</b>	
15:35	Tea and Coffee Break (garden, outside the auditorium – if the weather permits)			
15:50	<b>Workshop 1 – Deniges Auditorium</b> <b>CHRISTIAN UNKELBACH</b> <i>Interpretation and Analysis of Interactions in ANOVA Designs</i>		<b>Workshop 2 - Durkheim Auditorium</b> <b>MANDY HÜTTER</b> <i>Applying Multinomial Processing Tree Models in social Cognition Research</i>	
18:00	<b>Social Event</b>			
20:00	Enioy Bordeaux by yourselves!			
<b>Wednesday, September 4, 2019</b>				
9:00	<b>S24: Stereotyping</b>	<b>S25: Ostracism</b>	<b>S26: Spontaneous Trait</b>	<b>S27: information Sampling</b>
10:30	Tea and Coffee Break (garden, outside the auditorium – if the weather permits)			
11:00	<b>S28: Intergroup Processes</b>	<b>S29: Interpersonal Relations</b>	<b>S30: Dimensions of Judgement</b>	<b>S31: information Sampling</b>
12:30	Lunch break			
13:30	<b>JEAN-CLAUDE CROIZET - Plenary Session</b> (Deniges Auditorium) <i>From stereotype threat to symbolic violence: Documenting social reproduction from social psychology</i>			
14:45	<b>S32: Intergroup Processes</b>	<b>S33: Interpersonal Relations</b>	<b>S34: Face Processing</b>	<b>S35: Categorization/ Control</b>
16:15	Tea and Coffee Break (garden, outside the auditorium – if the weather permits)			
16:45	<b>Best Paper Award</b> (Deniges Auditorium)			
17:45	Closing comments			
20:00	<b>Farewell diner</b> (Le café du port, 1 quai Deschamps)			

## Plenary Sessions (Deniges Auditorium)

Monday, September 2 – 13:00

### Agnes MOORS

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*KU Leuven, Belgium*

#### **Toward a goal-directed explanation of suboptimal behavior**

Dual process models of behavior causation distinguish between (a) a stimulus-driven process in which a stimulus activates the association between the representation of stimulus features and the representation of a response (S-R) and (b) a goal-directed process in which the value and expectancy of the outcomes of one or more behavior options are weighed before an action tendency is activated (S:R-O → R). I propose to embed the goal-directed process in an action-control cycle, in which discrepancies between goals and stimuli can be reduced via behavior (assimilation), a change of goals (accommodation), and reinterpretation of the stimuli (immunization). Dual process models vary in their view of the interplay between both processes: In the traditional, default-interventionist architecture, the stimulus-driven process is the default determinant of behavior, and taken to be responsible for producing suboptimal behavior, whereas goal-directed processes can occasionally intervene to produce more optimal behavior. I propose an alternative, parallel-competitive architecture in which the goal-directed process competes and wins from the stimulus-driven process and is therefore the default determinant of behavior (e.g., Moors, Boddez, & De Houwer, 2017). In the latter architecture, seemingly suboptimal behavior arises when goals driving the behavior are hidden and therefore overlooked. Truly suboptimal behavior stems from (a) sand in the wheels of the goal-directed cycle, or (b) stimulus-driven processes that escape competition from the goal-directed process. I illustrate ways in which several assumptions of the parallel-competitive model can be tested.

**Tuesday, September 3 – 10:45**

## **Roland IMHOFF**

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*Johannes Gutenberg University Mainz, Germany*

### **Rethinking the effect of similarity on judgments and categorization**

It is a psychological truism that social perception and judgment is rarely made in isolation but in a rich context of – spatially and temporarily – proximal context stimuli. Classical theories from psychophysics and social cognition have long debated and empirically scrutinized under which conditions judgments assimilate to and when they contrast away from context stimuli. Two parts of the talk will address basic principles of target-standard similarity, and the role of similarity in social categorization. Results from experiments determining standard extremity a priori as well as more fine-grained curve-fitting studies in the domain of facial dimensions will revisit the widespread assumption of assimilation to moderate (i.e., relatively similar) and contrast away from extreme (i.e., relative dissimilar) comparison standards. In the last part of my talk, I will take the role of similarity to a more social domain of categorization. Specifically, I will contrast two potential relations between social categorization and the meta-contrast between alleged groups. The meta-contrast ratio quantifies the relation between similarities within a category compared to those between categories (much like an  $F$  fraction). In a given information ecology, dimensions on which there are seemingly distinct group with large meta-contrast ratios are used to infer relevant social categories in a bottom-up manner. At the same time, it has also been posited that perceivers (over-)accentuate such a meta-contrast as a function of top-down category labels. Data testing both directions will provide support for the former but not for the latter in the domain of complex, ecologically valid social categories. Together, these studies will highlight the ubiquitous relevance of the basic principle of similarity in everyday life.

**Wednesday, September 4 – 13:30**

## **Jean-Claude CROIZET**

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*University of Clermont Auvergne, France*

### **From stereotype threat to symbolic violence: Documenting social reproduction from social psychology**

The concepts of "situation" and "social context" lay at the core of social psychology. Yet these concepts are rarely defined per se. They more often act as postulates that affirm the "social" grounding of the kind of psychology we do; they constitute a marker that allows us to identify and recognize ourselves as social psychologists. In this presentation I will argue that one problem that our field faces—and a likely significant cause of our replication crisis—resides in the lack of elaboration of the "social" in our models. This, I believe, directly translates in a drop of both construct and internal validities and undermined statistical power. I will advocate for the necessity to reconnect with the "soft" social sciences to build stronger theories. To illustrate this point, I will take the example of the literature on stereotype threat and social group achievement gap, present and discuss several studies.

**Workshops**  
**Tuesday, September 3**  
**15:50 – 17:20**

**Workshop 1 – Deniges Auditorium**

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**Interpretation and Analysis of Interactions in ANOVA Designs**

**Christian Unkelbach**

*University of Cologne – Germany*

The 2 x 2 design is still the “Arche Noah” design of social psychological research. It is highly popular due to its simplicity: all relevant comparisons are “wired-in”; that is, two main effects and one interaction. However, the interpretation of the interaction effect is often less clear than what one might hope for.

I will present and discuss some of the most common misconceptions, in particular testing single cell mean differences in the absence of a significant interaction, the problem of power in testing interactions, and alternatives in terms of contrast analyses.

When one aims for contrast analyses, the necessity for a priori specification (i.e., pre-registration) becomes evident, as contrasts provide researchers with more freedom to test specific hypotheses.

The workshop will include some exercises, although most of the time I will present information distilled from the cited research papers in a lecture format.

**Workshop 2 - Durkheim Auditorium**

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**Applying Multinomial Processing Tree Models in Social Cognitive Research**

**Mandy Hütter**

*Eberhard Karls Universität Tübingen – Germany*

In social cognition, it is often of paramount importance to separate the contributions of multiple psychological processes to observed effects. This can be challenging as oftentimes different processes can lead to the same outcomes. For example, both explicit and implicit memory can contribute to recognition performance and attitude acquisition. How can we separate what is explicit from implicit, automatic from non-automatic, conscious from unconscious, controllable from uncontrollable? Multinomial Processing Tree (MPT) models constitute one of the most powerful research frameworks towards this goal. The present workshop reaches out to social cognitive researchers who would like to use MPT models in their own research. The goal of the workshop is to make MPT modeling more accessible, explaining their usefulness as well as some of the preconditions and assumptions involved in implementing MPT models.

## **Parallel Sessions**

## Room Cabernet - Session 1: Approach-Avoidance

14:15

Evaluative response acquisition in approach and avoidance trainings: No evidence for an effect of actual performance over instructions on incidental and instrumental learning

Cédric Batailler<sup>1</sup>, Dominique Muller<sup>1</sup>, and Cécile Nurra<sup>2</sup>

<sup>1</sup>LIP/PC2S – Univ. Grenoble Alpes – France ; <sup>2</sup>LaRAC – Univ. Grenoble Alpes – France

Dual-process models of evaluation acquisition explains acquisition of indirect evaluations as the results of associative processes and direct evaluations as the results of propositional processes: People would acquire indirect evaluations through associations emerging from repeated experiences and direct evaluations through deductive reasoning (McConnell & Rydell, 2014). Contrary to the predictions of the dual-process models stating that these processes do not interact (e.g., McConnell & Rydell, 2014) evidence shows that people can learn indirect evaluations through mere instructions (Van Dessel, De Houwer, Gast, & Tucker Smith, 2015). These results have been used to support the idea that a single-process model can explain evaluation acquisition (De Houwer, 2018). However, such data is not sufficient to discard the dual-process models assuming interaction between propositional and associative learning paths (e.g., Gawronski & Bodenhausen, 2014). To explore the relevance of dual-process models, we designed an experiment to investigate whether actual experience had an effect over instructions by observing both, in the context of an approach and avoidance training (AAT). In this pre-registered experiment, we observed two types of evaluation acquisition: acquisition for features instrumental in the training and acquisition for features incidental to the training. Dual-process models would be better suited to explain any stronger acquisition effect for actual experience than for instructions we would observe.

We randomly assigned 238 participants to two conditions: actual AAT or instructions only. Participants received instructions to approach and avoid lists of non-words according to the color of the lists. Then, only participants in the actual training condition performed the AAT (relying on the Visual Approach/Avoidance by the Self Task; Rougier et al., 2018). After this phase, participants performed an AMP for two kinds of stimuli: stimuli containing features instrumental for the training (i.e., the color) and stimuli containing features incidental for the training (i.e., the same non-words but without color).

We analyzed "pleasant" responses for the AMP with a three-way ANOVA. The predictors were movement (approach vs. avoidance), features (instrumental vs. incidental), and condition (actual AAT vs. instructions). This analysis revealed a main effect of movement, with the to-be-approached stimuli evaluated more positively than the to-be-avoided ones,  $t(236) = 3.57$ ,  $p < .001$ ,  $\eta^2p = .051$ . Critically, actually performing the AAT did not lead to a stronger movement effect,  $t(236) = 0.06$ ,  $p = .952$ ,  $\eta^2p < .001$ . The movement effect was moderated by the type of feature,  $t(236) = 3.39$ ,  $p < .001$ ,  $\eta^2p = .046$ . That is, we found that stimuli that had to be approached led to significantly more positive evaluations when they had features instrumental for the training,  $t(236) = 4.02$ ,  $p < .001$ ,  $\eta^2p = .064$ , and that this difference was not significant for stimuli containing incidental features,  $t(236) = 0.27$ ,  $p = .790$ ,  $\eta^2p < .001$ .

Overall, this experiment does not provide any evidence that experience has an effect over instructions on evaluation acquisition in AAT. Single-process models considering that actions have an effect on evaluations through proposition seems most parsimonious models to explain these results (Van Dessel, Hugues, & De Houwer, 2018).

Keywords: Attitude acquisition, dual process models, single process models, approach and avoidance training

14:45

## Can the VAAST produce large replicable approach/avoidance compatibility effects when participants do not have to process valence?

Dominique Muller<sup>1</sup>, Cédric Batailler<sup>1</sup>, François Ric<sup>2</sup>, Marine Rougier<sup>3</sup>, and Maé Braud<sup>1</sup>

<sup>1</sup>Université Grenoble Alpes – France ; <sup>2</sup>Université de Bordeaux (Bordeaux) – France ; <sup>3</sup>Université Catholique de Louvain – Belgium

Approaching and avoiding are probably two of the most fundamental action tendencies. If so, these tendencies should be triggered spontaneously even when not required to process the stimulus. Often, however, when approach/avoidance measures are used, participants are asked to process the stimuli to perform the task and researchers use block designs with one compatible block (e.g., where participants approach positive and avoid negative stimuli) and one incompatible block (where participants do the reverse). For instance, Rougier et al. (2018) recently introduced the Visual Approach/Avoidance by the Self Task (VAAST), a task producing strong and robust compatibility approach/avoidance effects (i.e., faster responses to approach and avoid when presented positive and negative stimuli respectively, than the reverse), but in this work all the experiments but one relied on block designs where participants' task required to process the stimuli. One exception was a subliminal version of the task (subliminal being defined here in a liberal manner), where participants' answers were about neutral stimuli preceded by masked valenced words. The compatibility effect observed here was clearly smaller and does not represent a viable tool for further work, because of all the issues that come with subliminal experiments (e.g., masking sufficiently while allowing the cognitive system to process the stimulus). The goal of the current work was therefore to test an incidental (non-subliminal) version of the VAAST where participants are neither asked about the valence of the stimuli, nor asked to process them. Indeed, incidental version of approach/avoidance tasks sometimes require asking participants to process other aspects of the critical stimuli (e.g., Krieglmeyer & Deutsch, 2010). Accordingly, in two experiments, we had participants perform a version of the VAAST where positive ( $N = 20$ ) and negative ( $N = 20$ ) words were randomly displayed for 200ms, then a blank screen for 100ms, and then a square or a diamond. Participants had either to approach the square and avoid the diamond or the opposite. In Experiment 1, 125 participants performed this task at the end of another (unrelated) experiment. A mixed model analysis revealed a significant compatibility effect,  $t(121) = 9.77$ ,  $p < .001$ . Importantly, this effect was not only significant, but also relatively large in size,  $d_z = 0.87$  (for a by participants analysis). In fact, this effect size is in the range of what Rougier et al. found with the explicit block versions of the task. Because this first experiment was preceded by a task which could have served as an unwanted procedural priming, we ran a second pre-registered version of the same task ( $N = 85$  participants). Again, we found a significant compatibility effect,  $t(82) = 7.24$ ,  $p < .001$ , still relatively large in size,  $d_z = 0.78$ . These two experiments illustrate that, at least with the VAAST, one can find large and replicable compatibility effects even when participants are not asked to process the valenced stimuli in any way. These results will be discussed in light of theoretical models that suggest such effects should be unlikely.

Keywords: Approach/Avoidance, incidental processing

15:15

## Affective Stimuli and Action Readiness: An informational Account

Nicolas Pillaud and François Ric

Laboratoire de psychologie, EA4139 – Université de Bordeaux (Bordeaux), France

Current theories relying affect and behavior assume that affective stimuli promote approach or avoidance reactions as a function of their valence. In this line of research, an automatic direct link between evaluation and behavior is sometimes hypothesized. However, most of the relevant studies have tested this link in conditions in which approach/avoidance behavioral tendencies measured toward the affect-eliciting objects, suggesting that the behavioral reactions are necessarily directed toward the objects that elicit these tendencies. The present research was aimed at testing the possibility that incidental affect conveyed by stimuli through one perceptual channel (e.g., auditory) could trigger behavioral reactions to neutral stimuli presented to another perceptual channel (e.g., visually). A first experiment (Exp1,  $N = 80$ ) measured the approach/avoidance tendencies to neutral stimuli with the VAAST (Rougier et al., 2018) whereas participants either heard a degraded positive vs.

negative word just before their appearance. In contrast with the hypothesis, participants responded faster to the presence of the target when it was preceded by a positive than by a negative stimulus, whatever the response modality (approach or avoidance). These results were inconsistent with the idea that affective stimuli automatically trigger approach or avoidance as a function of their valence. In line with informational theories (e.g., Clore et al., 2001), such results suggest that positive stimuli were interpreted as a signal that the target was either present (when positive) or absent (when negative), making participants ready to detect it and to respond faster when the target was preceded by a positive than by a negative stimulus whatever the response means (i.e., approach or avoidance). In contrast, a negative word would have signaled that the target was not present, facilitating response in its effective absence.

To test this, we designed another experiment (Exp2, N=138) that included two conditions, one with the same design of instructions (i.e., approach vs. avoid as a function of presence vs. absence of the target), and another one in which two alternatives for responding were presented. This experiment was preregistered. Consistent with our hypotheses, we observed a valence x movement x type of instructions (i.e., presence/absence of the target vs. presence of the target 1/presence of the target 2) interaction. When the instructions referred to the presence (vs. absence) of a given target, we replicated the finding of Exp1, whereas we observed the classical compatibility effect when the instructions referred to two distinct targets.

These findings suggest that we can be moved by an affect induced by highly degraded stimuli even when the behavioral reaction to the target is measured on a perceptual modality different from the source of the affect, indicating that this kind of effect is relatively general. Second, our results speak against a direct link between affect and behavioral tendencies of approach/avoidance and suggest instead that an informational interpretation of compatibility effects is plausible, at least in cross-modal conditions.

Keywords: Affect, Approach/Avoidance, Cross, modal influence, Unconscious

## Room *Malbec* - Session 2: Emotions

14:15

### Invaluable past, expendable future? Nostalgia accelerates temporal discounting

Wijnand Van Tilburg<sup>1</sup>, Tim Wildschut<sup>2</sup>, and Constantine Sedikides<sup>2</sup>

<sup>1</sup>King's College London – United Kingdom ; <sup>2</sup>University of Southampton – United Kingdom

We explored if and how nostalgia affects temporal discounting. Specifically, we tested, in two experiments, if nostalgia might increase or decrease the attractiveness of immediate versus delayed monetary rewards. Nostalgia—a sentimental longing or wistful affection for the past—revolves around rose-tinted reflections on cherished moments from one's social past (e.g., holidays, graduations). By doing so, it reconnects people to a positive past self, which in turn can offer comfort in the face of challenges in present, including low meaning, loneliness, and self-discontinuity.

While research established that nostalgia connects past and present, with often, though not invariantly, beneficial outcomes for the individual, nostalgia's impact on the future self is less well understood. Does nostalgia affect future-oriented decisions? And if so, in what way? Perhaps, by psychologically transporting people to their cherished pasts, nostalgia may cause people to care less about their future selves, decreasing value assigned to delayed (rather than immediate) rewards. On the other hand, nostalgia's capacity to enhance selfcontinuity may make people more considerate of also their future selves, increasing value assigned to delayed (rather than immediate) rewards.

We examined the potential impact of nostalgia on future-oriented behaviour using a (monetary) temporal discounting paradigm where people repeatedly choose between immediate and delayed rewards of different magnitudes and separated by different time-spans. A first online experiment showed that people who retrieved a nostalgic memory subsequently made decisions that favoured immediate versus delayed rewards more strongly than an ordinary memory control condition. Specifically, the reduction in value associated with increasing delays was steeper for nostalgic participants compared to control. Because these decisions involved hypothetical outcomes, we then ran a second study to test if similar results materialized for actual behaviour. This second

study, a behavioural lab experiment, also showed that nostalgic participants required more compensation to wait for delayed rewards over immediate, but smaller, ones.

Together, these studies suggest that nostalgia causes future rewards to drop more substantially in value over time-nostalgia accelerates temporal discounting. Potential mechanisms are considered and discussion about underlying processes is welcomed.

Keywords: Emotion, decision, making, nostalgia, temporal discounting, self, continuity

**14:45**

## When things could have gone wrong: Affective and motivational consequences of near-misses

Kai Epstude<sup>1</sup> and Amy Summerville<sup>2</sup>

<sup>1</sup>University of Groningen [Groningen] – Netherlands ; <sup>2</sup>Miami University – United States

However, they do not necessarily influence behavior, since the outcome of the situation was largely positive. In the present project, we aimed for a fuller understanding of the dynamics of counterfactual thoughts in a near-miss situation. We propose that near-miss situations can lead to positive or negative emotions (i.e. relief or alarm). These emotions are linked to different types of counterfactuals: Relief is linked to downward counterfactuals, while alarm is linked to upward counterfactuals. Importantly, being alarmed does motivate behavioral change. We examine this idea in four studies using different types of methodologies. Instructing participants to recall autobiographical events involving relief or alarm, we found that participants reported more behavioral changes after experiencing alarm compared to the relief condition (Study 1, N=102). In Study 2 (N=232), we examined relief and alarm focusing on a real world event, namely a major hurricane. We collected data from participants who were in (or close to) the most affected regions. The experience of alarm led to most intended behavioral change, and was linked to more negative actual experiences than relief. Using hypothetical scenarios focusing on a natural disaster, Study 3 (N=120) focused on near-miss experiences framed in terms of creating future vulnerability versus resilience. We show that a vulnerability frame elicits more intentions for behavioral change than a resilience frame, and that the experience of alarm versus relief drives these effects. In Study 4 (N=135), we asked students to reflect on alternatives to their performance in a recent exam. Imagining the worst possible outcome and contrasting the actual grade from that increased relief and decreased alarm. However, contrary to our expectations, simply imagining the worst possible outcome did not lead to any differences between relief and alarm. We link our findings to the existing literature on near-miss events as well as to the general literature on mental simulations.

Keywords: counterfactuals, mental simulation, emotions

**15:15**

## Taking or giving money? How social comparisons-based emotions can explain economic decisions

Lea Boecker

Leuphana University of Lüneburg – Germany

The present work provides the first systematic evidence that 1) comparison processes underly the social emotions envy, schadenfreude, happy-for-ness, and sympathy and 2) that these four emotions affect and explain economic decisions (Ntotal = 1718). I developed a new paradigm to elicit envy, schadenfreude, happy-for-ness, and sympathy in a comparable way. I let participants play a fake lottery and presented them the lottery outcomes of other ostensible players. I manipulated whether the comparison standards had started with either less money than the participants (downward comparison standards), with the same amount of money (lateral comparison standards) or with more money (upward comparison standards) and manipulated whether they won (fortune) or lost money (misfortune) in the lottery. First, I show that all four emotions were systematically affected by the direction of a comparison (Experiments 1-7). In comparison to lateral comparisons, envy and schadenfreude increased (decreased) in response to upward (downward) comparison standards, while sympathy decreased

(increased) in response to upward (downward) comparison standards. The happy-for-ness ratings were similarly high for downward, lateral, and upward comparison standards winning money (decreased for upward standards in Experiment 7). Second, I show that the intensity of the four emotions and the effect of comparison direction is reduced when participants were confronted with irrelevant comparison standards (computer programs playing the lottery; Experiment 4), irrelevant domains (winning and losing worthless chips; Experiment 5), and when they had no reference point for the comparison (Experiment 6). Together these studies indicate that all four emotions are based on social comparison processes and that they are strongly linked to inequality concerns. In the final experiment I explored the downstream consequences of envy, schadenfreude, happy-for-ness, and sympathy. To do so, I gave participants the opportunity to take away (i.e., sanction) or to give money (i.e., compensate) to the presented comparison standards. First, I observed an effect of comparison direction and event on behavior: participants added less money to upward comparison standards than to lateral and downward comparison standards, and added less money to comparison standards who won money than to standards who lost money. The more money comparison standards gained in the lottery, the less money participants gave them. Second, I found an effect of the four emotions on behavior: the more envy and schadenfreude participants experienced the less money they gave comparison standard and the more sympathy and happy-for-ness participants experienced the more money they gave comparison standards. Last, a mediation effect was revealed: the effect of the event (winning money vs. losing money in the lottery) on giving versus taking money was fully mediated by envy, schadenfreude, happy-for-ness, and sympathy. In this model, comparison direction (downward vs. upward) moderated the effect of event on the four emotions and has an effect on subtracting/adding money. The findings stimulate theorizing about social comparison-based emotions, and have important implications for economic social preference models based on inequity aversion as well as prospect theory. This is the first evidence directly linking the concept of inequity aversion to specific emotions.

Keywords: social emotions, economic decisions, inequity aversion, schadenfreude, envy

### Room Merlot - Session 3: Consumer cognition

14:15

#### The impact of relational first impressions in print advertising

Susanne Quadflieg

University of Bristol – United Kingdom

Forming rapid impressions of other people's social relations or obligations upon observing their interpersonal encounters from a third-person perspective is a ubiquitous activity of daily life. Common impressions concern, for instance, whether those observed are acquainted with one another, like or love each other, have compatible desires and goals, or compete for limited resources. But despite their prevalence in everyday life, so-called relational first impressions have attracted limited scientific inquiry to date. Above all, it remains to be determined how accurate, consensual, and influential these impressions can be. To inspire future research on these topics, the current talk introduces a new Integrative Model of Relational Impression Formation (known as the IMRIF; cf. Quadflieg & Westmoreland, 2019, *Journal of Nonverbal Behavior*) before it presents a series of three studies on the role of relational impression formation in the design and reception of print advertising. Print advertising (as commonly used in fashion or lifestyle magazines) primarily relies on the use of human models to promote products. Yet it remains unclear whether the number of models shown in such adverts can affect viewers' ad evaluation and brand memory. Based on the IMRIF, we postulate that multi-model adverts (MMAs) are more eye-catching, but less effective at inducing accurate brand memory than single-model adverts (SMAs). In support of this claim, we then show that MMAs are considered more interesting than SMAs when directly pitched against each other using a two-alternative forced-choice task in Study 1 (n = 117). We also replicate this finding in two studies using a rating procedure, and additionally demonstrate less effective brand memory formation (in Study 2, n = 89) and reduced allocation of visual attention towards brand logos (in Study 3, n = 52) during MMA compared to SMA exposure. We conclude that the number of models shown in print advertising does affect ad evaluation and brand memory formation in a systematic manner and suggest that relational impression formation can account for the observed processing differences. Implications and limitations of this line of research are discussed with the aim of highlighting what is, and what is not yet, known

about watching and judging other people's encounters in social advertising and beyond.

Keywords: eye, tracking, first impressions, person perception, social attribution, social inferences

**14:45**

### Investigating opposing effects and predictions for round (\$10.00), just-below (\$9.99), and precise prices (\$9.87)-a meta-analysis and a high-powered experiment

Eve Sarah Müller<sup>1</sup>, David Loschelder<sup>1</sup>, Marie-Lena Frech<sup>1</sup>, and Malte Frieze<sup>2</sup>

<sup>1</sup>Leuphana University of Lüneburg – Germany ; <sup>2</sup>Saarland University [Saarbrücken] – Germany

For decades, price endings have been thought of as an important determinant of consumer behavior. Given the pervasiveness of just-below, 9-ending prices (e.g., \$9.99), their efficacy is often taken for granted. Empirical, psychological research on just-below versus round prices, however, shows mixed and inconclusive evidence for this pricing strategy. This might be due 9-ending prices having distinct positive and negative effects on consumers. So-called level effects would assume that just-below prices are preferred because they are underestimated in magnitude compared to round prices. According to image effects, just-below prices might signal that a price is discounted but are also associated with lower product quality. In our meta-analysis, we included 246 effect sizes from 51 separate studies, and an overall sample of  $N = 85,627$ . By applying the robust-variance-estimation (RVE) approach (Hedges, Tipton, & Johnson, 2010), we were able to investigate dependent effects on different consumer outcomes. In line with theoretical accounts of just-below pricing effects, we find positive effects on economic decisions ( $g = .14$ ) and price image ( $g = .36$ ) and negative effects on quality image ( $g = -.10$ ;  $p = .315$ ) and recall accuracy ( $g = -.48$ ). Further moderator analyses provide insights into the boundary conditions, under which just-below prices have stronger versus weaker effects-e.g., stronger effects on price image for printed versus electronic price manipulation environments. As a next step, we will issue calls for (un-) published data, to provide the most comprehensive data base possible to examine the potentially opposing effects of just-below prices. We conducted a second study that extends past consumer research to precise prices (e.g., \$9.87), which have received relatively little attention in psychology thus far-although they have been shown to consistently affect decision-making in negotiations or estimations. Integrating these two strands of research, we conducted an online experiment with  $N = 284$ . This pre-registered, high-powered study contrast all three price endings (round / just-below / precise) and examines which effects these have on (1) price image, (2) purchase intention, (3) quality image, and (4) price recall. We conducted 3 (price ending) x 6 (product) ANOVAs with repeated-measures for the latter factor. The results show that precise prices are associated with a significantly more advantageous price image compared to round and just-below prices,  $F(2,281) = 8.04$ ,  $p < .001$ ,  $\eta^2 = .054$ . Interestingly, our high-powered sample did not replicate differences of price endings on purchase intention and quality image,  $F(2,281) < 0.447$ ,  $p > .640$ . Finally, for price recall, we found that round prices are most frequently recalled correctly, followed by just-below and then precise prices,  $F(2,281) = 714.83$ ,  $p < .001$ ,  $\eta^2 = .836$ . Our research extends the pricing literature by systematically integrating just-below with precise pricing strategies that are both commonly used in retail and e-commerce and contrasting these to round prices. We will discuss implications for theoretical accounts of pricing effects and future research.

Keywords: pricing, just below prices, round prices, precise prices, meta analysis, robust variance estimation

**15:15**

### Debt repayment, default options and anchoring: Disclosure of payment alternatives to increase credit card monthly repayment

Jeronimo Soro<sup>1</sup>, Mário Ferreira<sup>1</sup>, and Catarina Nunes<sup>2</sup>

<sup>1</sup>Faculdade de Psicologia, Universidade de Lisboa – Portugal ; <sup>2</sup>NOVA Information Management School, Universidade Nova de Lisboa – Portugal

Credit card debt repayments are often smaller than rationally advisable because people tend to choose the default option that corresponds to the minimum monthly payment. This has been linked to financial illiteracy (e.g., difficulties in calculating compound interests) as well as judgment biases such as hyperbolic discounting and anchoring of minimum payment required. To avoid this low level of repayment, financially harmful for consumers in the long run, the USA 2009's CARD Act introduced a disclosure in credit cards' statement

informing the pay-off time and total amount paid for minimum monthly payments as well as presenting an option of payment with debt pay-off in 36 months. Research testing the impact of this disclosure confirmed an increase in monthly payments, however there is also evidence that it creates new points of anchoring (Salisbury, 2014). We propose and test (between-participants) two alternative credit card statements with new disclosure information presenting more payment options based on different percentages of the total debt (in addition to the minimum payment) either in table or graph format. The new alternatives were compared to credit card statements with and without the CARD Act disclosure in scenarios emulating credit card repayment. Our goals were to avoid/attenuate anchoring by the default options (either minimum payment or the credit card option for debt pay-off in a predetermined time) and promote comprehension of the nonlinear evolution of interest rates and debt payments (i.e., a linear decrease in credit card monthly repayments leads to exponential increase in the time and money one needs to pay off debt). Participants were instructed to treat the presented credit card statement as their own and were asked to indicate (given a pre-defined budget and assuming that all other monthly expenses had already been paid off): how much would they repay of their credit card debt; how much should they repay of their debt; and how long it would take to pay off their debt if they were to pay a fixed amount of 25, 50 or 100 (manipulated within-participants). We ran two Experiments with design 4 (credit statement: control; CARD Act; new version table format; new version graph format) x 2 (repayment questions: how much would you pay; how much should you pay) x 3 (time to pay-off debt given a fixed payment of 25, 50 or 100). Experiment 2 (ongoing), used different debt values and different default options of repayment as well as improved versions of the Table and graph credit card statement formats. Preliminary findings not only replicate Salisbury's results (for the CARD Act disclosure scenario) but also show a tendency for higher payments under the new disclosure alternatives, attenuating default payments and the effect of new points of anchoring, and leading to estimates of pay-off time for the different fixed payments setups, closer to the objective answers. Possible psychological mechanisms underlying differences between scenarios in debt-repayment behavior and Policy implications of these findings will be presented and discussed.

Keywords: Credit card, Anchoring, Repayment, CARD Act

### Room Sauvignon - Session 4: Rebutal on "Implicit"

14:15

#### What's so associative about implicit associations?

Jimmy Calanchini<sup>1</sup>, Jeremy Cone<sup>2</sup>, Colin Smith<sup>3</sup>, Pieter Van Dessel<sup>4</sup>, Sean Hughes<sup>4</sup>, and Jan De Houwer<sup>4</sup>

<sup>1</sup>University of California Riverside – United States ; <sup>2</sup>Williams College [Williamstown] – United States ;

<sup>3</sup>University of Florida – Gainesville, United States ; <sup>4</sup>University College Ghent – Belgium

Traditionally, implicit measures have been assumed to assess associations between concepts (e.g., people; brands) and attributes (e.g., positive; negative) stored in memory. Many theoretical perspectives specifically conceptualize such implicit associations as reflecting accumulated experience and, consequently, that these associations are slow to form and slow to change. The present research challenges these perspectives. In one line of inquiry, participants (N=352, Amazon's Mechanical Turk) learned 50 positive pieces of information about a novel target person ("Bob"). Next, participants received a 51st piece of information about Bob that was either neutral (e.g., "Bob drank a soda.") or awful (e.g., "Bob mutilated an animal."). All participants then completed an Implicit Association Test (IAT) with Bob as one of the target categories. Application of the Quadruple process (Quad) model to the IAT data revealed that participants who received awful versus neutral information about Bob had lower estimates of positive-Bob associations. In a second line of inquiry, participants in a series of experiments (Ns = 1495, Project Implicit; 486, undergraduate; 2250, Project Implicit) either completed one of three evaluative learning paradigms (i.e., Evaluative Conditioning; Approach-Avoidance; Mere Exposure) in which they learned about novel product brands, or received instructions describing one of the evaluative learning paradigms but never actually completed the paradigm. All participants then completed an IAT with the novel product brands as target categories. Application of the Quad model to the IAT data revealed a relatively consistent pattern of results: most of the estimates of evaluative associations with the product brands

were equivalent between experienced versus instructed evaluative learning conditions and, in the few cases in which they were not equivalent, association estimates were higher for the instructed versus experienced evaluative learning conditions. Both of these lines of inquiry demonstrate that implicit associations can be influenced by procedures that traditional theoretical perspectives predict should not influence implicit associations. The first line of inquiry demonstrates that implicit associations are not necessarily slow to change but, instead, can be influenced by a single piece of information. The second line of inquiry demonstrates that implicit associations do not necessarily reflect accumulated experience but, instead, can be influenced by propositional information. Taken together, this research challenges traditional assumptions that implicit measures assess associations stored in memory. Consequently, the present research into the representational structure of the mental processes assessed by implicit measures has implications for future research on implicit attitude formation and change.

Keywords: implicit attitudes, evaluative learning, process modeling

**14:45**

## Implicit Attitudes and Evaluations are Misleading Constructs: They are Neither Distinctly Measured nor Distinctly Acquired

Olivier Corneille<sup>1</sup> and Mandy Hütter<sup>2</sup>

<sup>1</sup>University of Louvain – Belgium ; <sup>2</sup>University of Tübingen – Germany

Over the last two decades, an important body of research on implicit attitudes and evaluations has flourished that has proved highly influential within and beyond psychological research. This work has informed societal, philosophical and legal debates and guided intervention policies. While acknowledging the value of this research in generating novel questions, procedures and theories, we contend that "implicit" attitudes, evaluations, and measures are elusive and misleading constructs. First, we argue that there is no theoretically coherent and meaningful set of measures capturing "implicit" attitudes and evaluations. Second, we argue that the assumed existence of a distinct learning mode underlying the acquisition of "implicit" attitudes is largely unsubstantiated. Given that "implicit" attitudes and evaluations cannot be distinctly measured and that evidence is lacking that they are distinctly acquired, we question the scientific value of the "implicitness" terminology in attitude research and in research inspired by it. We argue that this terminology provides a false sense of understanding that hampers the advancement of scientific knowledge and risks misinforming interventions as well as ethical and legal debates. We discuss terminological and methodological alternatives and urge researchers to adopt a more precise terminology and turn to more precise measurement frameworks.

Keywords: attitudes, implicit, dual, process models, automaticity, processing tree models

**15:15**

## Formal modeling as a means to revisit the stability of indirect measures of prejudice

Manuel Becker<sup>1</sup>, Sarah Teige-Mocigemba<sup>2</sup>, and Karl Klauer<sup>1</sup>

<sup>1</sup>University of Freiburg [Freiburg] – Germany ; <sup>2</sup>University of Marburg – Germany

Indirect measurement procedures such as the Implicit Association Test (IAT; Greenwald et al., 1998) have been introduced as a powerful complement to self-report measures of prejudice. However, several measurement challenges have been identified that may severely complicate their interpretation and that may necessitate changes in procedures or analyses. Two of the most pressing concerns motivate the present research: First, the measurement outcomes of the contemporarily most popular indirect prejudice measures appear to be determined not only by construct-related mental processes, but also heavily by processes unrelated to prejudice. Second, there is much conflicting evidence with regard to the stability of their measurement outcomes, and the role of person-related and situation-related factors therein. In the present research, we pursue the question whether a joint implementation of a mental process model of the indirect measurement outcome (such as the Diffusion Model) to disentangle construct-related and –unrelated mental processes, and formal modeling of stable and transient variance components (such as latent-trait modeling) to explore the stability of both the construct-related and –unrelated processes, may help shed light on both debates. This proposition can be most easily

illustrated for the IAT as previous research has already suggested which parameters yielded by a diffusion model analysis of the measurement outcome of the IAT can be interpreted as differentially representing construct-related or -unrelated mental processes bringing about the measurement outcome (Klauer et al., 2007). Thus, we first decomposed the data from a previously published IAT retest study (Gawronski et al., 2017) by means of a diffusion model analysis. Then, we formally assessed the relative influence of the situation and person-situation interactions on the one hand, and stable person-related components on the other hand, on the manifestation of the construct-related and -unrelated mental processes, based on latent state-trait modeling. Further, we conducted two new studies that revisit the internal consistency (Study 1, N =100) and retest reliability (Study 2, N =120) of the Evaluative Decision Task (EDT, Fazio et al., 1995). We apply the same formal models to the EDT data, review the literature with regard to the interpretation of the diffusion model parameters for the EDT measurement outcome, and compare the outcomes with those of the IAT data.

Keywords: indirect measures, implicit measures, prejudice, diffusion model, latent state, trait analysis

### Room Cabernet - Session 5: Approach-Avoidance

16:15

#### The Interaction of Valence and Relevance in Automatic Approach-Avoidance Tendencies

Juliane Degner<sup>1</sup>, Dominique Muller<sup>2</sup>, Regina Reichardt<sup>3</sup>, François Ric<sup>4</sup>, and Marine Rougier<sup>5</sup>

<sup>1</sup>Universität Hamburg – Germany ; <sup>2</sup>Université Grenoble Alpes – France ; <sup>3</sup>Universität Regensburg – Germany ; <sup>4</sup>Université de Bordeaux – France ; <sup>5</sup>Université Catholique de Louvain – Belgium

Most theories of affective or evaluative processing presume that such processing occurs automatically in order to prepare the organism for immediate behavioral responses: to efficiently avoid negative stimuli and approach positive stimuli (e.g., Zajonc, 1988). Indeed, it has been documented with many different experimental paradigms that people respond faster and more accurately when deciding to approach positive stimuli and to avoid negative stimuli and vice versa. While there is still debate regarding underlying mechanisms of these paradigms, researchers appear to agree regarding the presumed general functionality of such automatic behavior regulation. However, this line of reasoning typically takes automatic evaluation as a rather undifferentiated process resulting in a unidimensional representation of valence as either positive or negative.

With our current research, we resort to a typology of valence introduced by Peeters (1983; Peeters & Czapinski, 1990) that includes the perspective of evaluation as a fundamental dimension with high relevance for behavioral decision. In this typology of traits, Peeters differentiated the evaluation of a trait from the perspective of the trait-holder (i.e. possessor- profitable) and the perspective of someone who interacts with the trait-holder (i.e., other profitable). Wentura, Rothermund, and Bak (2000) provided first evidence that this typology is relevant for automatic evaluation processes and approach-avoidance behaviors. In their study behavioral compatibility effects occurred only for other-relevant traits but not for self-relevant traits.

We present a series of three preregistered and well-powered studies in which we used the recently introduced Visual Approach/Avoidance by the Self Task; (VAAST; Rougier et al., 2018) – an experimental paradigm that allows assessing approach-avoidance tendencies with high reliability and robustness. We implemented an orthogonal manipulation of stimulus valence (positive vs. negative) by relevance (self- vs- other-profitability), expecting known valence-movement compatibility effects to be moderated by stimulus relevance. The purpose of these studies was to investigate whether and to what extent behavioral effects in the VAAST are related to valence and relevance of stimulus words.

Confirming expectations, we observed robust compatibility effects with large effect sizes in all studies. These effects were indeed moderated by stimulus relevance – the direction of this moderation was, however, reversed from what we had expected, at least in the first two studies (study 3 is currently being conducted): Compatibility effects were larger for self-profitable stimuli as compared to other-profitable stimuli. We discuss these findings and their potential implications for process-theories of approach-avoidance behavior in general and the VAAST specifically.

Keywords: approach and avoidance behavior, automatic valence processing, relevance, VAAST

16:45

## "Science Manipulates the Things and Lives in Them": Reconsidering Approach-Avoidance Operationalization Through a Grounded Cognition Perspective

Ivane Nuel, Marie-Pierre Fayant, and Théodore Alexopoulos

Laboratoire de Psychologie Sociale – Université de Paris – France

Approach and avoidance are the keystones of adaptive regulation at the evaluation- behavior interface. On the one hand, continuous evaluations of the world fuel approach- avoidance reactions as a function of the individual's immediate environment. On the other hand, in turn these approach-avoidance reactions influence evaluations. We believe that a grounded perspective to social cognition-which places the sensorimotor aspects of individual- environment interactions at the core of cognition-has much to offer for the understanding of evaluative processes. Yet, despite the growing enthusiasm for a grounded view of cognition in the approach-avoidance literature, its core principles are seldom jointly reflected at the operationalization level. In this work, we relied on the insights of a grounded perspective to propose more encompassing operationalizations of approach-avoidance based on multimodal interactive and contextualized whole-body movements. We tested this operationalization by investigating their influence on evaluations. In line with previous research, we hypothesized that interpersonal approach behaviors, relying on ecological movements, improve evaluation of others compared to avoidance ones.

To test this hypothesis, we conducted four studies in Virtual Reality in which participants had to greet individuals by approaching/avoiding them via upper-body incline, (Study 1 and Study 4) or via walking steps (Study 2 and Study 3). In the first two studies participants had to give their impression about each individual on a scale ranging from 1 (negative) to 7 (positive) directly after the encounter. In Study 3, participants evaluated each individual at the end of the session, after having met all of them. Finally, in Study 4, we induced participants to categorize the individuals as members of a real group (i.e., membership based on a new blood type) and measured evaluation toward this group with an Implicit Association Test. These variations followed different paradigms used in the literature. Parallely, we also tested the construct validity of our ecological approach-avoidance operationalizations by measuring the action tendencies and the neuropsychological systems activated by the behaviors. Across the four studies, we did not obtain the theorized effects. Yet, further exploratory analyses suggested that our operationalization depends on the way participants experience the virtual situation: the more participants feel being present in the situation, the more the approach-avoidance ecological operationalizations tend to activate the corresponding neuropsychological systems. Moreover, when we increased the feeling of presence (i.e., pretexting an interaction with members of a real group in Study 4), participants who performed approach behaviors scored higher on the Goal-Drive-Persistence sub-dimension of the Behavioral Approach System than those performing an avoidance behavior. We discuss these results in light of grounded cognition and the notion of feeling of presence integral to the VR experience quality.

Keywords: approach and avoidance, grounded cognition, interpersonal evaluations

### Room Malbec - Session 6: Self

16:15

## With Great Power, Comes Great Personalities : Mediating effect of the Active-Self on the consequences of an induction of social power.

Hugo Bouxom, Peggy Chekroun, and Jean-Baptiste Légal

Laboratoire Parisien de Psychologie Sociale – Université Paris Nanterre : EA4386, Université Paris Nanterre : EA4386 – France

Power is commonly defined as the asymmetric control over valued resources in a social relationship (Magee & Galinsky, 2008). Based on the idea that the Self is not a monolithic entity, but more like a nebula of traits whose expression depends on the context (Markus & Kunda, 1986), Guinote & Chen (2017) hypothesized that "Power

changes individuals and their behavior” by reinforcing power-related self-concepts (e.g. Self-confidence, self-esteem, etc.). The present work tests this hypothesis formulated by Guinote & Chen (2017) that the consequences of power would be mediated by the activation of power-related Self-concepts. Research shows that power facilitates the acquisition of desired outcome by enhancing persistence and flexibility (Guinote, 2007). In this context, a first study aims to explore the consequences of power on goal-pursuit, focusing on the mediating effect of the activation of power-related self-concepts. We hypothesized that a power induction would increase goal-persistence and that this effect would be mediated by the activation of related self-concepts in mind.

To test this hypothesis, 119 individuals participated to an online study. Following a role-play power induction (adapted from Galinsky et al., 2003), participants completed an IAT composed of Self-related categories (Me, Not-Me), and Power-related categories (Leader, subordinate). Target words were related to power (e.g. Confident, Powerful, Dependent, Powerless). Then, under the guise of an independent task, participants were involved in a “Where is Waldo” task. The last trial was actually cropped so that it was impossible to find the character. Time spent on the task was recorded. We hypothesized that participants in high power condition would spend more time on the task and that this effect would be mediated by the activation of power-related self-concepts in mind. Our results do not support our hypothesis. Power induction tends to influence the activation of power-related self-concepts ( $p < .06$ ). There was also a marginal effect of power induction on the time spent on the task ( $p = .054$ ), but no mediating effect was found.

This first study raises several questions. Measure of the accessibility of constructs related to power in the self-concepts was assessed to a general level compared to the nature of the task (Goal-pursuit). Guinote (2007) uses persistence and flexibility to highlight the effects of power on goal-pursuit. In the task we used, it was impossible to estimate the number of attempts initiated before giving-up. To address these issues, a second study – based on the model of the first one – has been conducted ( $N = 126$ ). The aim of this study was to estimate goal-pursuit by measuring both persistence and flexibility. Secondly, accessibility of power-related self-concepts was measured in regards of the task, allowing us to estimate more closely the accessibility of power-related self-concepts in a goal-pursuit context (e.g., persevering, evasive, persistent, hesitant). Our results show a significant effect of power on goal-persistence and flexibility. Analysis also reveal a significant effect of power induction on accessibility of power-related self-concepts. Again, no mediation effect of the accessibility was found on goal-pursuit. Implication for Guinote et al.’s (2007) theoretical framework are discussed.

Keywords: Social Cognition, Active, Self, Implicit cognition

**16:45**

## Goal-Directed Allostasis: The Unique Challenge of Keeping Things as They Are

Yael Ecker<sup>1</sup>, Michael Gilead<sup>2</sup>, and Roland Imhoff<sup>3</sup>

<sup>1</sup>University of Cologne – Germany ; <sup>2</sup>Ben Gurion University – Israel ; <sup>3</sup>Johannes Gutenberg - University of Mainz – Germany

The current work introduces the construct of Goal-Directed Allostasis (GDA), referring to the mental process that underlies individuals’ attempts to maintain a current state of affairs. Whereas GDA focuses on the preservation of the current state, mental processes aimed at goal-attainment (Goal-Directed Progress; GDP) entail making a change for the sake of advancing in a specific direction-either towards a desired state (e.g., getting rich) or away from an undesired state (e.g., recovering from an illness). The central difference between GDA and GDP is the absence of a gap between the current state of the pursuer and her object of desire. Given the inherent importance of preserving the current state, on a psychological and a societal level, one could expect that the distinction between GDP and GDA would receive much theoretical and empirical attention. However, surprisingly, this topic has been largely overlooked in the rich literature on motivation and self-regulation, which has often focused on situations wherein there is a discrepancy between the desired and current state of affairs. I will review alternate explanations for maintenance behavior as unintentional, habitual behavior or as GDP-and conclude that GDA is a distinct mental process that plays a crucial role in human life, but is not accommodated by current goal models. I will discuss the unique cognitive and motivational challenges that arise from GDA, and suggest strategies to overcome these challenges. Finally, I will present exploratory data confirming the prevalence of GDA in everyday life, and the unique characteristics that distinguish it from goals defined in terms of prevention or attainment (GDP). In an online study, 400 participants reported a personal goal

on each of seven life domains-parental, romantic, spiritual, financial, workplace, household, health-and indicated whether each goal is best described as a motivation to maintain the current state, improve the current state, or prevent worsening of the current state. Then, participants reported the importance of each goal, the degree that they experienced it as boring, repetitive, difficult, motivating, and exciting, and the degree that they felt satisfied, threatened, or unstable in relation to the current state in each goal. The results of this study are a fascinating testimony to the unique and important role of GDA. 35% of all goals that participants reported were described as maintenance, whereas only 9% were described as prevention (56% as attainment goals). Maintenance goals were characterised by a considerably lower degree of threat compared to prevention goals, and by a considerably larger degree of satisfaction compared to attainment goals. Crucially, maintenance goals were also characterized by lower levels of motivation and importance compared to both attainment and prevention goals. I will discuss the implications of this insight to people's ability to keep the things they already have.

Keywords: motivation, self, regulation, goals

## Room Merlot - Session 7: Consumer cognition

16:15

### The health halo effect: an explanation in terms of affective misattribution

Nicolas Bochar<sup>1</sup>, Dominique Muller<sup>1</sup>, Norbert Schwarz<sup>2</sup>, and Jonathon Schuldt<sup>3</sup>

<sup>1</sup> Université Grenoble Alpes – France, <sup>2</sup> University of Southern California, <sup>3</sup> Cornell University

When evaluating a food product, organic or fair-trade labels can promote the misperception that this product is lower in calories. These findings have been coined as the health halo effect: An initial positive impression about a product (due to the label) can promote subsequent positive evaluations on unrelated dimensions (e.g., calorie content). The goal of our research was to identify and provide various tests of the mechanisms implied in this phenomenon. Specifically, we investigated the affective misattribution mechanism as an explanation of this health halo effect.

First, if the health halo effect is due to an affective misattribution, this effect should occur without any deliberative reasoning. In two studies, 690 participants evaluated the caloric content of a chocolate presented as fair-trade or not. Half of participants were cognitively loaded by performing an additional task. Results showed that the health halo effect (i.e., a caloric underestimation of the fair-trade product) still occurs when the participants are cognitively loaded,  $t(690) = 2.57, p < .001$ , and even without any mention of using the label in their evaluation (in a final question asking them about the information they used to answer).

Second, the affective misattribution mechanism implies that the positive valence of a label could also be misattributed to a neutral stimulus. By using an affective misattribution procedure, in two other studies ( $n = 119$ ), we showed that a neutral stimulus is evaluated more positively when preceded by an organic label (vs. a control picture),  $t(118) = 3.58, p < .001$ .

Finally, according to an affective misattribution explanation, we should observe a systematic congruency between the valence of the label and the valence of the evaluation (regarding the caloric content). To test this assumption, we investigated the case of GMO. Because GMO food is badly perceived, a GMO product should lead to a more negative evaluation than a product without GMO (that is positively perceived). In two studies, 533 participants read descriptions of vegetables with a label (without GMO, with GMO, or no label) and then had to evaluate their caloric content. Consistent with our congruency hypothesis, participants provided lower calorie judgments for without GMO products (positive information),  $t(532) = 2.63, p = .009$ , and higher calorie judgments when the for GMO products (negative information),  $t(532) = 2.35, p = .02$ . In a last study ( $n = 149$ ), we investigated the case of energy bars. Because energy bars are positively perceived when they are high in calories, a positive label should lead to a more caloric evaluation (positive evaluation). Participants had to evaluate the caloric content of an energy bar described either as fair-trade or not. They evaluated the bar as higher in calories (positive evaluation) when it was described as fair trade (positive information) than when it was not,  $t(149) = 2.08, p = .039$ .

Taken together, these studies suggest that an affective misattribution mechanism can partially explain the health halo effect: this cognitive bias seems to involve a few inferences and is mainly driven by the valence of the

label.

Keywords: health halo effect, calorie estimation, affective misattribution, GMO, fair trade, organic

**16:45**

Are commercials able to give you wings? The impact of risk-glorifying commercials on risk behavior.

David Urschler<sup>1</sup>, Hanna Heinrich<sup>2</sup>, Stefanie Hechler<sup>1</sup>, Peter Fischer<sup>2</sup>, and Thomas Kessler<sup>1</sup>

<sup>1</sup>University of Jena – Germany ; <sup>2</sup>University of Regensburg – Germany

Previous research on risk-glorifying media has provided encompassing evidence for a positive connection between risk-glorifying contents and (a) risk-positive emotions, (b) risk-positive cognitions and attitudes, and (c) risk-positive behavioral inclinations. Nevertheless, little evidence shows whether risk-glorifying content increases actual risk behavior. We conducted three experimental studies to assess whether risk-glorifying commercials increase risk behavior. In all studies, participants were randomly assigned to a risk-glorifying or a neutral commercial. Additionally, in Study 2 participants were randomly assigned to an additional arousal or a non-arousal condition to test the mediating effect of arousal. In Study 3, we tested the mediating effect of the accessibility to risk-positive cognitions. We measured participants' risk behavior via the risk assessment ramp. Our results revealed that participants who watched the risk-glorifying commercial walked faster to the jumping-off point (Study 1, 2, & 3) and jumped from a higher level (Study 2 & 3), thus, indicating the exposure to risk-glorifying media content increases people's risk behavior. Neither arousal, nor the accessibility to risk-positive cognition mediated the effect of risk-glorifying media content. Beyond our findings, we offer a new tool to assess risk behavior that is effective and easy to apply.

Keywords: Risk behavior, risk, glorifying media, media effects, commercials

### Room *Sauvignon* - Session 8: Meta-Science

**16:15**

ManyLabs 5: Testing pre-data collection peer review as an intervention to increase replicability

Hans IJzerman<sup>1</sup>, Ivan Ropovik, Charles Ebersole, Natasha Tidwell, Lukasz Markiewicz, Tiago Lima, Daniel Wolf, Sarah Novak, W. Collins, Madhavi Menon, Luana Elayne Cunha De Souza, Przemyslaw Sawicki, Leanne Boucher, Michal Bialek, Katarzyna Idzikowska, Timothy Razza, Sue Kraus, Sophia Weissgerber, Gabriel Banik, Sabina Kolodziej, Peter Babincak, Astrid Schütz, R. Weylin Sternglanz, and Katarzyna Gawryluk

<sup>1</sup>Laboratoire Interuniversitaire de Psychologie – Université Grenoble Alpes – France

During this talk, I will present the summary findings of ManyLabs5 and the detailed procedure and results of the Förster et al. (2008) replication effort. Replication efforts in psychological science sometimes fail to replicate prior findings. Formal pre-data collection peer review by experts may address replication shortcomings and increase replicability rates. For the overall project, we selected 10 replications from the Reproducibility Project: Psychology (RP:P; Open Science Collaboration, 2015) in which the original authors had expressed concerns about the replication designs before data collection and only one of which replicated successfully ( $p < .05$ ). We revised the replication protocols and received formal peer review prior to conducting new replications. For the subproject concerning the Förster et al. (2008) article, the original authors found that after priming a concept (such as "aggressive"), people assimilate that concept into their social judgments after a "global" prime (e.g., rate a person as being more aggressive compared to a no prime condition), or contrast their judgment away from the concept after a "local" prime (e.g., rate the person as being less aggressive compared to a no prime condition). This effect was not replicated by Reinhard (2015) in the Reproducibility Project: Psychology. However, the authors of the original study criticized the replication for not having been sufficiently ambiguous or applicable for detecting the original effect. We ought to reconcile the differences between the original and

replication studies by testing Reinhard's (2015) protocol and a revised protocol, responding to the original authors' critiques that Reinhard's protocol fell short on applicability and target ambiguity. Teams from nine universities contributed to the Förster et al. (2008) replications. We first conducted a pilot study and [unsuccessfully/successfully] selected ambiguous scenarios for each site (N = 530). We then piloted the aggression prime to meet applicability at five different sites (N = 363) and were [successful/not successful]. For the final replication study of Förster et al. (N = 1460), we [did not find/found] moderation by protocol type, with patterns in both protocols [inconsistent/consistent] with the effects observed in the original study. For ManyLabs5 overall, XX of 10 RP:P replications and XX of 10 Revised replications showed significant evidence in the same direction as the original finding ( $p < .05$ ), compared to an expected XX. The results suggest that the prior lack of replicability of these findings was [partly/completely/not] due to discrepancies in the RP:P protocols that could be resolved with expert peer review.

Keywords: replication, manylabs, crowdsourced research, social cognition

**16:45**

How can intranasal-oxytocin research be trusted? Lessons learned from a systematic review and suggested directions for future research

Adrien Mierop<sup>1</sup>, Moira Mikolajczak<sup>1</sup>, Christoph Stahl<sup>2</sup>, Jérémy Béna<sup>3</sup>, Olivier Luminet<sup>1</sup>, Anthony Lane<sup>1</sup>, and Olivier Corneille<sup>1</sup>

<sup>1</sup>Université Catholique de Louvain – Belgium ; <sup>2</sup>Universität zu Köln – Germany ; <sup>3</sup>Université de Toulouse – CLLE ERSSàB - UMR 5263 – France

Over the past two decades, research about the role of Oxytocin (i.e., OT) in human behavior has grown exponentially. However, research efforts have not yet allowed developing a unified theory of OT effects. Relatedly, growing concerns about the robustness of conclusions drawn in the field have been raised. The present article contributes to this debate by reporting and discussing key conclusions from a systematic review of published studies addressing interactive effects of intranasal-OT (i.e., IN-OT) administration on psychosocial outcomes. The review indicated that (1) tested interactive IN-OT effects were highly heterogeneous; (2) for a majority of published interactions, no replication was attempted; (3) when attempted, replications were largely unsuccessful; (4) significance was unrelated to sample size; (5) statistical power was critically low and unrelated to rate of significant results; (6) research practices were characteristic of an exploratory approach. This concerning state of affairs makes it virtually impossible to tease apart true from false interactive IN-OT effects. Based on this observation and Positive Predictive Value simulations, we provide constructive directions for future research that should help extract true effects from noise and move the IN-OT field forward.

Keywords: neuroendocrinology, oxytocin, social cognition, positive predictive value

### Room Cabernet - Session 9: Prejudice

**17:20**

From one Laïcité to another: the regulation of prejudice through suppression-justification processes in french Laïcité(s) context(s)

Lucie-Anna Lankester-Broche<sup>1</sup> and Théodore Alexopoulos<sup>2</sup>

<sup>1</sup>Université Paris Descartes – Université Paris Descartes Sorbonne – France ; <sup>2</sup>Laboratoire de Psychologie Sociale – Université de Paris – France

Two social norms have emerged from the core juridical principle of Laïcité which seem to have contrastive consequences on intergroup attitudes. The first norm, coined Historic Laïcité, values the liberty of beliefs and the equality of all citizens. The second norm, coined New Laïcité, requires the restriction of visible signs of religious membership in public space. The latter has recently been targeted as a possible vehicle of stigmatization toward minority groups such as North-Africans (Akan, 2009; Balibar, 2004; Baubérot, 2012). Indeed, research shows that Historic Laïcité is negatively correlated with prejudice, whereas New Laïcité is positively correlated with prejudice (Kamiejski et al., 2012; Roebroek & Guimond, 2015, 2017). Our research

extends these correlational findings by specifically addressing the distinct cognitive mechanisms involved in the expression of prejudice within the realm of these two Laïcité norms. To this purpose, we relied on classic work on mental control and on insights from the Suppression-Justification Model (JSM, Crandall & Eshelman, 2003). These suggest that in social egalitarian contexts such as those activated by the Historic Laïcité, individuals are likely to suppress stereotypic thoughts to avoid being perceived as counter-normative (Wyer, Sherman & Stroessner, 1998). This suppression mechanism is however known to lead to rebound effect, such that the stereotypical thoughts rendered hyper-accessible through suppression actually backfire and color subsequent judgments (Macrae et al., 1994). Moreover, it is argued that suppression generates a state of tension (Wegner, 1989), which individuals are motivated to avoid (Crandall & Eshleman, 2003). One way to bypass suppression is to seek further contexts that allow for the subtle expression of prejudice. This is the function of the justification mechanism: it operates to find an acceptable context that allows for the expression of prejudice. The New Laïcité, which is more restrictive concerning cultural manifestations, instantiates such a context. Based on the aforementioned elements, we claim that individuals are likely to suppress their prejudice in the context of Historical Laïcité, whereas they tend to justify them in the context of the New Laïcité. Across three studies (N=420), following the priming of the two norms (vs. a control condition), we first assessed the level of expression of prejudice through the writing of a passage on a stereotyped target. Then, we measured the stereotype rebound effect using an impressionformation task (Studies 1 and 2), as well as stereotype accessibility using a lexical completion task (Study 3). In line with our hypothesis, results of first two studies show that participants primed with Historic Laïcité initially express less stereotype in the passages but subsequently rated a target person as more aggressive, as compared to participants primed with New Laïcité or in the Control condition. Furthermore, through the three studies, we find this linear pattern on the initial expression of prejudice with the control condition falling in between. However, result on the hyper-accessibility index (study 3) were inconclusive. Taken together, these results offer initial empirical evidence of a causal link between the two Laïcité norms and prejudice through both Suppression and Justification mechanisms.

Keywords: Prejudice, Suppression, Justification, Norms, Laïcité

**17:50**

## Moderators of Intergroup Evaluation in Disadvantaged Groups: A Comprehensive Test of Predictions from System Justification Theory

Iniobong Essien<sup>1,2</sup>, Jimmy Calanchini<sup>3</sup>, and Juliane Degner<sup>2</sup>

<sup>1</sup>FernUniversität in Hagen – Germany ; <sup>2</sup>Universität Hamburg – Germany ; <sup>3</sup>University of California Riverside – United States

We examined hypotheses derived from System Justification Theory (SJT; Jost, Banaji, & Nosek, 2004) regarding intergroup evaluations in disadvantaged groups. Jost and colleagues predicted that (a) outgroup favoritism is more likely to manifest on implicit than on explicit measures; that (b) outgroup favoritism is more likely to the extent that disadvantaged groups endorse conservative beliefs; and that (c) outgroup favoritism is more likely to the extent that a group is stigmatized by society. However, the currently available empirical evidence provides mixed support for all of these predictions. We used a meta-analytic approach with large samples of online respondents from Project Implicit (total N = 715,721), spanning 8 domains of intergroup comparison and 14 nations, which is a broader and more diverse sample than has been examined in any previous SJT research. We included both implicit and explicit measures as dependent variables. As implicit measures, we used a variant of the IAT. As explicit measures, we used two corresponding self-report measures: one-item preference measures and feeling thermometers. We observed that disadvantaged groups displayed an average medium-sized IAT effect, indicating outgroup favoritism, but average small or null effects on self-report measures, indicating ingroup favoritism or no bias. Furthermore, implicit and explicit intergroup evaluation was moderated by self-reported conservatism and measures of stigmatization. Overall, these findings align with predictions by SJT. However, effects were highly heterogeneous (IAT: = 0.46,  $Q(72) = 80,468.60$ ,  $p < .001$ ,  $I^2 = 99.94\%$ ; one-item preference measures: = 0.47,  $Q(72) = 186,325.30$ ,  $p < .001$ ,  $I^2 = 99.95\%$ ; feeling thermometer difference scores: = 0.18,  $Q(72) = 45,597.29$ ,  $p < .001$ ,  $I^2 = 99.83\%$ ) and exploratory moderator analyses revealed that intergroup evaluation in disadvantaged groups was moderated by the intergroup domain: Whereas some disadvantaged groups consistently displayed outgroup favoritism, others consistently displayed ingroup favoritism, and yet others displayed differential patterns on implicit and explicit measures. These moderation effects of intergroup evaluation by intergroup domain are not easily explained by SJT, and thus

seem to provide a boundary condition. Lastly, these more complex patterns of intergroup evaluation among disadvantaged groups illustrate a need for further theory development and more theory-driven research in this domain.

Keywords: system justification theory, disadvantaged groups, intergroup relations, stigma, outgroup favoritism, implicit bias, explicit bias

**18:20**

### #Women, not objects: a sensitizing web campaign against female sexual objectification to reduce sexual harassment.

Francesca Guizzo and Mara Cadinu

University of Padova, DPSS – Italy

Since 2017, when film producer Harvey Weinstein and later US Supreme Court associate Brett Kavanaugh were accused of sexual harassment, social movements like #MeToo have raised awareness around the world about the overwhelming diffusion of sexual harassment. The cultural milieu in which sexual harassment flourishes has been related to mass media pop culture, which often presents women as sexy bodies used as decorative objects (see Objectification Theory by Fredrickson & Roberts, 1997; Ward, 2016, for a review on media influence). Indeed, media exposure to sexually objectified female portrayals increases men's endorsement of hostile sexism (e.g., Rollero, 2013), tolerance towards sexual harassment, and actual sexual harassment behaviors (e.g., Dill, Brown, & Collins, 2008; Galdi, Maass, & Cadinu, 2014). Although these studies testify a growing interest in the effects of sexually objectifying media on sexual harassment, very little is known about strategies that could reduce these effects. Therefore, there is a call to investigate strategies to prevent the harmful consequences of media sexual objectification (Gervais & Eagan, 2017). Extending this line of research, the goal of the present study is to test whether a real web sensitizing campaign (i.e., #WomenNotObjects) that raises awareness and criticizes the way in which women are portrayed by the media would reduce male gender-harassing conduct (i.e., number of sexist jokes sent to an online chat partner via the Computer Harassment Paradigm; Maass et al., 2003), sexual coercion intention (via Likelihood to Sexually Harassing scale; Pryor, 1987) and hostile sexism (via Ambivalent Sexism Inventory; Glick & Fiske, 1996). Across two experiments (Ns = 157; 159), male participants were exposed to one of three videos: 1) a web campaign against female objectification (sensitizing), 2) a nature documentary (control), or 3) a video in which women are portrayed as sexual objects (sexually objectifying). Study 1 and Study 2 combined demonstrated that men exposed to the sensitizing video showed lower gender-harassing behavior, lower hostile sexism, and lower sexual coercion intention than participants in the other two conditions altogether. Importantly, extending previous research (Fox & Potocki, 2016) mediation analyses on both experiments demonstrated that the sensitizing video decreased hostile sexist attitudes, which in turn was associated with both lower gender-harassing behavior and lower sexual coercion intentions. Unexpectedly, the sensitizing video also led to an increase in benevolent sexism, which however was not associated with sexual harassment. The potential importance and practical implications of these results are discussed.

Keywords: mass media, sexual objectification, sexual harassment, sexism

## Room *Malbec* - Session 10: Self

**17:20**

### How Prioritised Is Self Prioritisation?

Siobhan Caughey<sup>1</sup>, Johanna Falbén<sup>1</sup>, Marius Golubickis<sup>2</sup>, Ruta Balseryte<sup>1</sup>, Linn Persson<sup>1</sup>, Dimitra Tsamadi<sup>1</sup>, and Neil Macrae<sup>1</sup>

<sup>1</sup>University of Aberdeen – United Kingdom ; <sup>2</sup>University of Toronto – Canada

Research has consistently demonstrated how information associated with the self is easier to detect, evaluate, and remember. For decades, enhanced responses to self-related information has been investigated using highly

familiar stimuli. More recently, however, research has investigated the effect through stimuli that has no personal connection. In such experiments, research has continued to demonstrate enhanced stimulus processing, and the self-prioritisation effect has become a central point of social cognition research. Pertinent to the current research, the self-prioritisation effect is believed to be an automatic process whereby self-relevance enhances performance across a range of tasks, stimuli, and sensory modalities. However, the current research challenges the assertion of an obligatory process, hypothesising self-relevance facilitates performance only when tasks draw attention to the associations. Across two experiments, participants performed three sets of tasks in which the amount of attention drawn to the association varied. In Experiment 1, associations with items were formed through self-ownership or friend-ownership. In Experiment 1A, participants were assigned a pencil or a pen. In Experiment 1B, participants were assigned a fork or a spoon. In block one, participants made an ownership judgement (self or friend). In block two, participants made an identity judgement (pen or pencil/fork or spoon). In block three, participants made an orientation judgement (horizontal or vertical). In Experiment 2, associations were made with shapes that were either the self or a friend. In a between-subjects design, one group of participants used the shapes a triangle and a square, and the other group of participants used the shapes a circle and a diamond. In block one, participants made an association judgement (self or friend). In block two, participants made an identification judgement (triangle or square/circle or diamond). In block three, participants made a location judgement (above the fixation or below the fixation). The results from both experiments showed the self-prioritisation effect in judgements of association, yet the self-prioritisation effect did not extend to the perceptual task. These findings demonstrate the conditional automaticity of the self-prioritisation effect, suggesting the emergence of the effect is limited to when the ‘self’ element is an active part of the task being performed. Moreover, Experiment 1 demonstrated an effect in both semantic tasks (the ownership judgement and the identity judgement), whereas Experiment 2 demonstrated an effect only in the association task. The divergence between the two experiments highlights the way in which the self is activated also plays a part in the emergence of the self-prioritisation effect. Overall, these findings yield important insights into how the self-prioritisation effect emerges across differing task conditions.

Keywords: self, prioritisation, self, relevance, automaticity

**17:50**

## The Not So Ubiquitous Self: Exploring Stimulus Prioritization in an Ownership Task

Johanna Falben and Neil Macrae

University of Aberdeen – United Kingdom

Previous research has shown that self-relevant information is prioritized over material associated with someone else (i.e., self-prioritization effect). For example, people are faster when classifying objects owned by the self than when responding to comparable items that belong to someone else. What has not previously been considered, however, are whether crucial task-related factors modulate the emergence of this self-ownership effect. For example, mirroring effects in other psychological domains, is stimulus prioritization influenced by the probability of encountering self-owned and other-owned stimuli during an object- classification task? The current experiments explored this issue (i.e., is it possible to trigger self- and other-prioritization effects under conditions of stimulus predictability?). In addition, computational modelling (i.e., hierarchical drift diffusion modelling, HDDM) was used to identify the cognitive processes underpinning task performance.

Across two experiments, participants were asked to indicate whether items (i.e., pens and pencils) presented on the screen belonged to themselves or their friend. In Experiment 1, participants were told that the likelihood of whose item would appear in each trial block varied so that in one block self-owned items appeared more frequently than friend-owned items (i.e., 75% of items self-owned and 25% friend-owned). In the second block, in contrast, friend-owned items appeared more frequently than self-owned items (i.e., 75% of items friend-owned and 25% self-owned). In the last block, self-owned and friend-owned items appeared equally often (i.e., 50% of items self-owned and 50% friend-owned). Experiment 2 was identical to Experiment 1, except the proportions of self-owned and friend-owned items presented during the test phase did not correspond to the expectancies provided (i.e., either self-trials or friend-trials were expected, but self-owned and friend-owned objects appeared equally often).

The results from both experiments showed that responses were faster to the expected items (i.e., faster responses to self-owned items in the self-expected block and to friend-owned items in friend-expected block in both experiments, no differences in equal block), even when self- owned and friend-owned items were equally likely

to appear (Experiment 2). The HDDM analysis further revealed that these self- and other-prioritization effects were underpinned by a response bias. Specifically, less evidence was required when making expectancy-congruent ownership decisions, regardless of the owner of the objects. These results contest the putative exclusivity of self-prioritization during decisional processing and highlight the flexibility of social-cognitive functioning.

Keywords: self, ownership, decision, making, drift diffusion model

**18:20**

## Feeling of connection between present self and future self and action toward the future self : a reciprocal effect

Cécile Nurra<sup>1</sup>, Fernando Nunez-Regueiro<sup>1</sup>, and Daphna Oyserman<sup>2</sup>

<sup>1</sup>Univ. Grenoble Alpes – Univ. Grenoble Alpes – France ; <sup>2</sup>University of South California – United States

Many well-meaning adults ask even quite young children what they want to be when they "grow up" and then admonish them to work hard and stay in school so they can attain their "grown up" or adult self. Adults might think that if children just bring their "grown up" adult future self to mind, this will remind children to more engaged with their schoolwork. However, children's adult future self is far away and this does not always work. But why? Following the logic of social cognition (e.g. Bargh, 2016; Higgins, 1998; Strack & Schwarz, 2016), something that is on the mind or "accessible" will be used in making judgments only if it is experienced as relevant to the task at hand. A social cognition perspective on self-concept predicts that people include as self-relevant accessible information, unless that information appears irrelevant to making these judgments (Oyserman, Elmore, & Smith, 2012; Oyserman, 2015). This implies that an adult future self will influence judgment only if it is on the mind and experienced as relevant for current choice. Relevance is not to be taken for granted, after all, adulthood is in the distal future, a future so far away that it simply may not be relevant to right now. In line with Identity-Based motivation Theory (Oyserman, 2015), we hypothesized that the feeling of connection between the present self and the future self will primed the feeling of relevance. First, we primed a lay theory about the future self (it is near, connected, overlapping with the current self or it is far, disconnected, and separate from the current self) and tested consequences. We show that experienced connection is consequential (Studies 1, N = 116; and Study 2, N = 173, in Nurra & Oyserman, 2018). We do so by showing that students led to experience high connection between current 'me' and adult future 'me' subsequently have better academic performance (school grades) than students led to experience low connection between current 'me' and adult future 'me.' We assess short term (Study 1) and long term (Study 2) effects. Second, we questioned directionality of the link. In fact, in everyday life, the direction of effect may be reversed. That is, children who are guided to act in future oriented ways may come to see their adult future selves as near and connected to their current self. Moreover, the process might be iterative and reciprocal rather than unfolding primarily in either direction. That is, considering the future self as connected to one's current self might activate school engagement and working on school might active the idea that the future is connected. We tested this hypothesis with a longitudinal study with 6 measurements times from the beginning of 10th grade to the end of 11th grade (Study 3, N = 1956). Behavior was measured through actual grade and absenteeism. As predicted, we showed that there is a reciprocal effect between the feeling of connection and actual grade and absenteeism.

Keywords: Future self, possible self, school engagement, connection, identity, based motivation

## Room Merlot - Session 11: Moral cognition

**17:20**

### Utilitarian choices in moral dilemmas and market orientation relationships

Dariusz Karas<sup>1</sup> and Dagna Wleklinska<sup>2</sup>

<sup>1</sup>Cardinal Stefan Wyszyński University in Warsaw – Poland ; <sup>2</sup>Nicolaus Copernicus University [Torun] – Poland

One of the most interesting issues in contemporary social psychology is how people make moral choices (Graham et al., 2013; Greene, 2014; Haidt 2001, 2012). Research is often based on the so-called moral

dilemmas, in which subjects are put in a hypothetical situation where they decide save one person's life or save more people. The choices in such dilemmas reflect the duality of the approach to morality, present in philosophy for hundreds of years: a utilitarian or deontological approach. In the utilitarian approach, it is assumed that what is moral or immoral depends on the size of the consequences of the decision taken. On the other hand, the deontological approach assumes that the consequences are irrelevant, and certain situations are by definition bad and can not be justified by the favorable result of the profit and loss account (Baron 2007, Frank, 2008). We asked ourselves whether the moral choices made are determined by interpersonal relations. We devoted special attention to two models of social relations - community relations and market relations (Clark, Mills, 1993). Interpersonal relationships can be based on close social relationships (community-based relationships) or on economic factors (exchanges-based relationships). Community orientation is characterized by relations between close relatives in which support and sharing is devoid of a calculation aspect. The motivation to transfer profits or benefits to the other side is primarily to show concern going beyond focusing on your own interest. Market orientation is associated with a profit and loss analysis and is characteristic of exchange-based relationships. the motivation to transfer the benefits to the other side is to expect something in return, the attitude "something for something" (Clark, Mills, 2012).

We assume that those who have been aroused the market orientation, due to the estimation of profits and losses, will be more inclined to utilitarian choices in moral dilemmas than persons without this orientation, or in whom the community orientation was activated. In the research we used the classic trolley dilemma and its modifications.

In the first experiment (n=221), we verified whether the inclination to utilitarian choices in moral dilemmas would be higher in people who had market orientation activated. The results showed, according to our hypothesis, that people with an activated market orientation have a higher tendency to choose a utilitarian option in comparison to a control condition. Having regard to that proportionality is a key element and the dominant motive of market relations (Fiske 1991, 1992), in the second experiment (n=213) we increased the proportion related to the utilitarian choice (the higher number of people to be saved). People who were activated market orientation more often chose a utilitarian option when they could save more people, while this difference was not important in the control condition. We did not observe such effects in relation to people with activated community orientation. In the third experiment (n=178), we blocked the possibility of determining the proportion (no specific number of potential victims was given). Activating market orientation does not affect the frequency of choosing a utilitarian option.

Keywords: moral choices, market orientation, trolley dilemma

**17:50**

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## Control experience and moral decision making: The case of corruption

Sindhuja Sankaran and Mirosław Kofta

University of Warsaw – Poland

In two studies we show evidence of how control experiences influence moral decision making, and more specifically how they influence a real life moral dilemma involving corruption. In both studies we generally predicted that experiencing a lack of control would lead to more utilitarian judgments, that is, justifying the sacrifice of one for the greater good and experiencing high control would lead to more deontological judgments. In the first study (N = 126), conducted online, participants were randomly assigned to one of the two control conditions; (a) high control or (b) low control wherein they were instructed to recall an experience in which they lacked or had full control over a situation. After the manipulation check, moral decision making was measured by using a set of 10 hypothetical incongruent moral dilemmas based on Conway and Gawronsky (2013). After reading each of the moral dilemmas, participants were asked to rate on a scale from 1 (completely disagree) to 5 (completely agree) the degree to which the action for each dilemma was morally acceptable. Results from this study confirmed our assumption that participants who experienced a lack of control showed a utilitarian trend in making moral decisions and those who had control showed a deontological trend. In order to test our model on control experience and moral decision making we wanted to incorporate it in a real every day moral situation. To that end, we chose bribery and corruption as one such situation. Thus in Study 2 (N = 146) we were interested in whether control processes would influence the decision to engage in a corrupt behaviour or not, that is, justify committing bribery for the 'greater good' of achieving a outcome. Participants were

randomly allocated to one of the two control conditions, in the low control condition people were asked to recall a situation in their lives wherein they did not have any control over their decision or outcome when interacting with another person. Corruption was measured using the corruption game based on design of Kobis et al., (2015). The competing players took the role of CEOs of a construction company, and the allocator played a public official. Participants had the option to directly invite the public official on a private vacation (severe bribery), which ensured that participants had an advantage in all rounds of the bidding. Specifically, when both player's bids were equal, the player who engaged in severe bribery would receive the full prize rather than the half he or she would otherwise have been awarded. The measurement of corrupt behaviour was seen as the willingness to engage in bribery or not. The results again revealed a classic main effect, wherein low control individuals justified bribery more than high control individuals. This study thus experimentally shows how control processes indeed affects moral decision making in everyday situations.

Keywords: control, moral decision making, corruption

**18:20**

## Revising First Impressions: The Key role of Moral Character in Driving Impression Updating

Marco Brambilla<sup>1</sup>, Luciana Carraro<sup>2</sup>, Luigi Castelli<sup>2</sup>, and Simona Sacchi<sup>1</sup>

<sup>1</sup>University of Milano-Bicocca – Italy ; <sup>2</sup>University of Padova – Italy

Research suggests that morality, sociability, and competence exert different effects on impression formation and that morality forms the primary basis for the global evaluation of others. The primacy of morality in shaping first impressions raises the question of whether morality also drives the updating of such first impressions. Indeed, our impressions of other people are continually updated in light of new information that might be evaluatively inconsistent with prior information. Extensive research has sought to understand our ability to update social impressions in light of behavioral inconsistencies. Most of this work has addressed the ease with which different impressions can be changed as a function of the amount and frequency of counterattitudinal behaviors. However, less is known about the specific person characteristics that can promote or disrupt impression change. Complementing and extending prior research evidence, here we argue that impression updating is influenced by the content characteristics that describe our fellow interaction partners and that trait-content information that refers to moral character has a primary role in this sense. Specifically, we tested the hypothesis that morality should have a leading role over other basic dimensions of human social cognition (i.e., sociability and competence) in the impression-updating process. We tested these predictions in three studies where participants were asked to form an initial impression about a target person and subsequently revise their first impression in light of new information about that person. Experiment 1 (N=40) employed a whiting-subjects design and asked participants to form a first impression of a target person based on information pertaining to either the moral character or sociability of that individual. Subsequently, we asked participants to revise their impressions in light of new and inconsistent information. This second behavior varied for dimension (morality vs. sociability), whereas its valence was always inconsistent with the valence of the first behavior. In Experiment 2 (N=40) and Experiment 3 (N=267) morality was crossed with competence information. While Experiment employed a within-subject design, Experiment 3 employed a between-subjects design. In Experiment 3 we further tested the mediating mechanism that may drive the hypothesized effect. Specifically, we asked participants to indicate how much the counterattitudinal behaviors were frequent and informative of person's intentions. Results showed that a greater impression change occurred when moral information (vs. sociability or competence information) was added to what was previously learned about an individual. Results further showed that morality promoted a greater impression change because such information was interpreted to be more informative of person's intentions. Our data further suggested that the key role of morality in driving belief revisions goes over and beyond the statistical principle of frequency-derived diagnosticity. Taken together, we show that the key role of morality in social cognition goes beyond the formation of initial evaluations by influencing the updating of such first impressions.

Keywords: Impression Formation, impression updating, Morality

## Room Sauvignon - Session 12: IAT

17:20

## Predicting the Unpredictable: The Suicide-IAT Passes the Test of a Direct and Independent Replication

Armand Chatard

Université de Poitiers, Centre de recherches sur la cognition et l'apprentissage (CeRCA) – UMR CNRS 7295, France

Skepticism about the role of implicit bias in predicting human behavior has grown considerably (Gawronski, 2019). To address the critics, researchers may adopt recently established best practices to avoid false positives (e.g., high powered sample sizes, preregistration, independent and direct replication, etc.). In this talk, I will present a direct and independent replication of a previously published finding concerning the predictive validity of the suicide-implicit association test (S-IAT). Research has suggested that implicit identification with death/suicide can accurately predict a suicide attempt several months in advance (Nock et al., 2010, in *Psychological Science*). Although a number of studies have sought to replicate this surprising effect, all studies conducted thus far were conceptual, rather than direct replications of the original study, leaving open the possibility that some effects were overstated due to flexibility in data analysis. The goal of the present study was to provide one of the most thorough and rigorous replication studies in clinical science to date: a direct and independent replication of the Nock et al. (2010) study. Participants included 165 patients seeking treatment at the emergency psychiatric department of a hospital in France. At baseline, patients completed the S-IAT, a semistructured interview, and a self-report measure of suicide ideation. Six months later, the patients were contacted by phone and their hospital medical records were examined, to determine whether they had made a new suicide attempt. At odds with the original study, results showed that the S-IAT did not discriminate patients who presented for suicide attempts (vs. other reasons). As in the original study, however, the S-IAT predicted suicide attempts within the 6-month follow-up period beyond well-known predictors. The test correctly classified 85% of patients, confirming its diagnostic value for identifying who will make a future suicide attempt. The theoretical and practical implications of these findings will be discussed. Of course, the diagnostic value and predictive validity of the S-IAT can still be improved. However, results of this independent direct replication suggest that indirect measures of implicit biases offer promising avenues for research and prevention. A conceptual replication in a different country/culture supports this conclusion.

Keywords: implicit bias, implicit association test, prediction, suicide

17:50

## Surprise, Surprise: You Are Biased – People Are Surprised at IAT Feedback Unless They First Reflect on Their Own Biases

Alexandra Goedderz and Adam Hahn

University of Cologne – Germany

Previous research has raised the question why people appear to be surprised when they receive feedback of being biased against minority group members after completing implicit association tests (IATs) even though they are able to predict their performances on IATs prospectively (e.g., Hahn, Judd, Hirsh, & Blair, 2014). Five preregistered M-Turk studies suggest that people are surprised at their IAT feedback on a Black-White IAT because they rarely consider their biases until they are made to pay attention to them. Study 1 and 2 showed that people are in fact more surprised when their IAT feedback indicates bias than when it indicates showing little or no bias, regardless of whether the feedback was hypothetical (Study 1) or based on their actual performance (Study 2). Studies 2 and 3 further showed that this surprise effect is independent of the specific wording of the feedback. However, participants were less surprised when they predicted their scores before they completed the IAT than when they did not predict their scores (Studies 3-5). Studies 4 and 5 showed that predictions reduce surprise effects because they make people pay attention to their biased spontaneous affective reactions reflected in IAT scores. Attention to reactions without logging in a prediction had similar effects as IAT score prediction, whereas predicting IAT scores without encouragement to base it on a spontaneous reaction did not show the

same effect (Study 4). Furthermore, explanations that the IAT measures spontaneous affective reactions without encouragement to pay attention to these reactions did not significantly lower participants surprise at their IAT feedback, whereas encouragement to pay attention to reactions without lengthy explanations of the IAT did (Study 5). In sum, the present studies show that people are surprised at receiving IAT feedback indicating bias against minorities and that surprise can be reduced when people get the chance to first reflect on their biases. Discussion centers on the meaning of awareness in that people may not constantly be aware of their biases but can easily be made to pay attention to them.

Keywords: Implicit Attitudes, IAT, introspection, unconscious, racial bias

**18:20**

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## Self-Other Asymmetries in the Perceived Validity of the Implicit Association Test

Cristina Mendonça<sup>1</sup>, André Mata, and Kathleen Vohs

<sup>1</sup>Faculdade de Psicologia, Universidade de Lisboa – Portugal

The Implicit Association Test (IAT) is the most popular instrument in implicit social cognition, with some scholars and practitioners calling for its use in applied settings. Yet, little is known about how people perceive the test's validity as a measure of their true attitudes toward members of other groups. Four experiments manipulated the desirability of the IAT's result and whether that result referred to one's own attitudes or other people's. Results showed a self-other asymmetry, such that people perceived a desirable IAT result to be more valid when it applied to themselves than to others, whereas the opposite held for undesirable IAT results. A fifth experiment demonstrated that these self-other differences influence how people react to the idea of using the IAT as a personnel selection tool. Experiment 6 tested whether the self-other effect was driven by motivation or expectations, finding evidence for motivated reasoning. All told, the current findings suggest potential barriers to implementing the IAT in applied settings.

Keywords: Implicit Association Test, motivated reasoning, self, other differences

## Room Cabernet - Session 13: Prejudice

8:45

## Of mice and boys: Perceiving children as less human than adults

Sara Hagá and João Santos

University of Lisbon – Portugal

Many features that we associate with our human essence, such as rational thinking, language, or morality, develop markedly with age. Could this mean that we perceive children as less human than adults? In Study 1, an implicit association test (IAT) revealed that adult participants ( $N = 60$ ) had stronger associations between the concepts of person and adult (or animal and child) than between the concepts of person and child (or animal and adult),  $M(D\text{-score}) = .49$ ,  $95\% CI(D\text{-score}) = [.39, .59]$ . Explicitly, participants reported a slight preference for children over adults.

In Study 2, adult participants ( $N = 60$ ) assigned fewer human-related words (and more animal-related ones) to photos of children's faces than adults' faces,  $t(59) = 4.54$ ,  $p < .001$ ,  $d_z = .59$ . Concurrently, participants assigned more positive words to children's than to adult's photos.

In Studies 3a and 3b, two lists of words ( $N$  (list a) = 61 words,  $N$  (list b) = 97 words) showed strong correlations between humanness and adulthood ratings,  $r(\text{list a}) = .68$ ,  $r(\text{list b}) = .53$ . The more a word was rated as typically human (vs. typically animal) by a sample of participants, the more it was rated as relating to adults (vs. children), by another sample of participants. Globally, there was a small negative correlation between adulthood and valence ratings (provided by yet another sample of participants), so that child-related words tended to be rated as more positive.

In Study 4, adult participants ( $N = 66$ ) using a scale that represented human evolution blatantly rated children as more animal-like, less evolved, than adults,  $t(64) = 4.47$ ,  $p < .001$ ,  $d_z = .55$ . This result holds for those participants who had the opportunity to rate maturity before human-likeness, suggesting it does not stem from a mere semantic confusion between evolution and development. Participants reported positive feelings towards children, as well as towards adults.

Across a variety of measures, both subtle and blatant, people perceived children as less human than adults. These results are particularly interesting because, unlike other infrahumanized groups, children are generally a well-liked social group, which we seek to protect, not harm. In this talk, I'll discuss some potential consequences (societal implications) of these results and how understanding the infrahumanization of children may impact the way the infrahumanization of other groups is conceptualized.

Keywords: social perception, infrahumanization, children, prejudice

9:15

## My physical appearance at the center of others' concerns: what are the consequences for metadepersonalization and emotions?

Tina Chevallereau and Stéphanie Demoulin

Université Catholique de Louvain – Belgium

Depersonalization of objectified female targets has mainly been investigated from the perpetrators' perspective. Research findings showed that a focus on physical appearance leads either to animalistic or to mechanistic depersonalization of the objectified (female) targets (Heflick & Goldenberg, 2009; Morris, Goldenberg, & Boyd, 2018; Vaes, Paladino, & Puvia, 2011). However, to the best of our knowledge, existing studies did not investigate the consequences of objectification on depersonalization from the victims' point of view (i.e., metadepersonalization). Metadepersonalization corresponds to the way victims of depersonalization perceive the way they are treated by others. Even if depersonalization has mainly been investigated from the perpetrators' perspective, research investigating consequences of depersonalization for the victims had gained ground in the last decade. For instance, Bastian & Haslam (2011) found that interpersonal maltreatments led participants to report higher levels of animalistic and mechanistic perceptions of depersonalization, which in turn elicit higher

levels of negative emotions such as anger, sadness and guilt.

The present research project aims to study the consequences of objectification on metadehumanization (i.e., women's perceptions of dehumanization) and the emotional consequences of metadehumanization from the victims' perspective. In a series of 3 studies, we test the hypothesis that the focus on physical appearance should promote metadehumanization (H1). Moreover, based on Bastian & Haslam's (2011) results, we hypothesized that the effects of objectification on negative emotions (i.e., anger, sadness and guilt) are mediated by animalistic and mechanistic metadehumanization (H2).

In the three studies, we manipulate objectification using a cover story in which participants were invited to view the profile of Thomas, a user of a dating site. We explained to participants that this dating site works in such a way that users have to write a short text explaining what is important to them in a relationship and choose from a wide range of questions the ones they would like to ask to their potential suitor. In the objectification condition, Thomas selected 4 questions relatives to physical appearance and 3 relatives to other domains (i.e., family, friends, work and hobbies). In the control condition, Thomas selected 1 question on physical appearance and 6 questions on other domains.

In a first study (N=142), we showed that participants report higher levels of metadehumanization in the objectified condition compared to the control one. The second and third study aimed to replicate this result and test the second mediation hypothesis. In the second and the third studies (N=129 & N=111), we replicate the effect of objectification on metadehumanization. Moreover, our results suggest that, as predicted, metadehumanization mediates the relationship between objectification and feelings of anger and sadness (study 3 only).

Implications of these research findings will be discussed both for the literature on dehumanization and for the literature on objectification.

Keywords: dehumanization, objectification, metadehumanization

## 9:45

### Sexual objectification beyond the metaphor: Comparing neural responses toward objectified human targets and objects.

Daniela Ruzzante<sup>1</sup>, Jeroen Vaes<sup>1</sup>, Giulia Cristoforetti<sup>2</sup>, Carlotta Cogoni<sup>1</sup>, and Veronica Mazza<sup>3</sup>

<sup>1</sup>Department of Psychology and Cognitive Sciences, University of Trento – Italy ; <sup>2</sup>Department of Experimental Psychology, Gent – Belgium ; <sup>3</sup>Center for Mind/Brain Sciences, University of Trento – Italy

Objectification – reducing a someone to a something – represents a powerful and potentially damaging way in which we can see and treat others. Women are often the principal victims of sexual objectification. Sexual objectification occurs whenever a woman's body, body parts, or sexual functions are separated out from her person, reduced to the status of mere instruments. What remains unclear is the extent to which a woman becomes an object when objectified. In three different studies the participants' neural activity was measured during an Oddball Paradigm in which a sequence of repetitive stimuli is infrequently interrupted by a deviant stimulus. The infrequent stimulus is expected to trigger a late eventrelated neurophysiological response, the P300. This ERP is a posterior and parietal cerebral component that occurs around 250-600ms after stimulus onset. Its amplitude increases to the extent that the deviant stimulus is perceived as different from the repetitive stimuli. In these three studies participants analyzed frequently presented male and female human stimuli, either objectified or non-objectified, and infrequently presented gender-matched doll-like objects. The doll-like objects were created making a morph between the original human's faces and doll-faces and adding a surface blur on the visible skin of each model. In Experiment 1, only objectified stimuli were presented that participants categorized as a human or a doll-like object by means of a key press. Results showed that the amplitude of the P300 was significantly smaller when a female doll-like object appears among a set of objectified female pictures, compared to when a doll-like object was infrequently presented among a series of objectified male pictures. In Experiment 2, only non-objectified stimuli were presented. These stimuli were the same as in Experiment 1, but now they were fully-dressed. Results showed a similar amplitude of the P300 for both male and female stimuli. This result confirmed that only objectified depiction of women and not women in general are seen more similar to real objects. In Experiment 3, all the semantic references to the human-object divide were eliminated, participants had to categorize the objectified stimuli on the basis of a colored contour line

applied on the right or on the left side of the targets. Results of Experiment 3 confirmed that objectified women were still perceived more similar to real objects. Taken together, these results confirm that the woman object is not a mere metaphor. Indeed, for the first time we managed to demonstrate that the perception of women, when objectified, changes in essence beyond the metaphor becoming more similar to a real object.

Keywords: sexual objectification, neural correlates, metaphor

### Room *Malbec* - Session 14: Self

**8:45**

#### Hierometer theory: A functional account of status and self-regard

Nikhila Mahadevan<sup>1</sup>, Aiden Gregg<sup>2</sup>, and Constantine Sedikides<sup>2</sup>

<sup>1</sup>CE-University of Roehampton – United Kingdom ; <sup>2</sup>University of Southampton – United Kingdom

Self-regard is the degree to which we evaluate ourselves positively or negatively on the whole. But what function does it serve? Why did humans come to develop the ability to evaluate themselves? One theory, known as sociometer theory, posits that self-esteem serves to regulate inclusion in social groups. Self-esteem tracks social inclusion: Being socially included and accepted raises self-esteem, whereas being socially excluded and rejected lowers it. This, in turn motivates the individual to engage in affiliative behaviour to restore these social bonds to an optimal level.

The current research presents evidence for a new theory of self-regard, known as hierometer theory. Hierometer theory posits that self-regard serves a status-regulating function. It tracks social status: Having higher status raises self-regard, whereas having lower status lowers it. This, in turn, motivates suitable status-seeking behaviour. The current research tested these predictions in 3 studies using a combination of cross-sectional, experimental, and longitudinal methods. Additionally, we investigated two types of self-regard: one basic (self-esteem) and one grandiose (non-clinical narcissism).

Study 1 (N = 940; cross-sectional) examined the links between people's overall levels of status, inclusion, self-esteem, and narcissism. We found that both status and inclusion covaried positively with self-esteem, but that status alone covaried positively with narcissism. These links held independently of gender, age, and the Big Five personality traits. Study 2 (N = 104) sought to establish causal relations and therefore adopted an experimental design. It experimentally manipulated status and inclusion orthogonally and assessed their effects on state self-esteem and narcissism. We found that higher status and higher inclusion both promoted higher self-esteem, whereas only higher status promoted higher narcissism. Study 3 (N = 325) examined these links in a naturalistic everyday context using a longitudinal daily diary design over a 10-day period. We found that participants had higher state self-esteem on days on which their status was higher, and also on days on which their inclusion was higher. In contrast, participants had higher state narcissism on days on which their status was higher, but not on days on which their inclusion was higher. Thus, across all studies, self-esteem tracked both status and inclusion, whereas narcissism tracked status alone.

Together, these findings offer good support for hierometer theory. They help to shed light on the function of self-regard. They suggest that self-esteem operates as both a sociometer and a hierometer, tracking both status and inclusion, whereas narcissism operates primarily as a hierometer, tracking status.

Keywords: status, inclusion, self, esteem, narcissism, hierometer theory

**9:15**

#### Experiencing pre-registration replication with undergrad students: A Pronin et al. (2002) replication.

Amélie Bret<sup>1</sup>, Cédric Batailler<sup>2</sup>, Rémi Courset<sup>3</sup>, Camille Sanrey<sup>4</sup>, Soufian Azouaghe<sup>5</sup>, and Dominique Muller<sup>6</sup>

<sup>1</sup>Laboratoire de Psychologie et NeuroCognition – Université Pierre Mendès France - Grenoble 2, Université Joseph Fourier - Grenoble 1, Université Savoie Mont Blanc, Centre National de la Recherche Scientifique : UMR5105, Université Grenoble Alpes – France ; <sup>2</sup>LIP/PC2S – Univ. Grenoble Alpes – France ; <sup>3</sup>Laboratoire Interuniversitaire de Psychologie – Université Grenoble Alpes – France ; <sup>4</sup>LaRAC (EA 602) – Université Grenoble Alpes – France ; <sup>5</sup>Laboratoire InterUniversitaire de Psychologie (LIP/PC2S) – Université Grenoble Alpes – Université Grenoble Alpes BP 47 – 38040 GRENOBLE Cedex 9 – FRANCE, France ; <sup>6</sup>UGA – Université Grenoble Alpes – France

This project aims to i) replicate Pronin, Lin, and Ross (2002)'s second experiment ii) introduce the concept of pre-registration and its importance to second year psychology students. In the second year of the psychology curriculum at University Grenoble Alpes, the social psychology courses are composed of live experiments, to let students experience the effects before studying them. To illustrate the better-than-the-average-effect (i.e., the tendency for most to evaluate themselves better than an average standard from a defined group), our team of teachers chose to replicate the second experiment of Pronin's et al. (2002). In the original experiment, participants were asked to make self-assessments on several personality dimensions (e.g., objectivity, consideration for others, selfishness...). Right after that, they were warned that individuals tend to show a "better-than-the-average" effect when they have to conduct self-assessment. Then, participants indicated if the self-assessment they first made would be congruent with objective measures of themselves. Authors observed the typical "better-than-the-average" effect and more importantly participants reported that their self-assessment was objective. In other words, participants did not admit the possibility of being biased.

We conducted this experiment in class using material inspired by Alike et al. (1985) and Pronin et al. (2002). We asked students to self-assess how several dimensions describe themselves compared to a typical psychology student. Then, we asked them to indicate whether the self-assessment they just made would be similar to an objective assessment. Materials and hypothesis have been pre-registered before conducting the study during classes (<https://osf.io/ca2vh/registrations/>). We predicted a "better-than-the-average" effect and an underestimation of the bias. When the experiment has been completed, we introduced students to the concept of preregistration. We asked them to generate precise hypotheses about the experiment they just participated in. We told them that only hypothesis made in class will be statistically tested (in addition to the pre-registered hypotheses). In total, 16 different hypotheses were tested among all the groups. We replicated Pronin's et al. findings, that is we first observed a better-than-the-average effect: Participants judged that positive personality dimensions would describe them more than they would describe a typical psychology student and the opposite for negative personality dimensions,  $t(262) = 18.62, p < .001., \eta^2 = .570$ . As Pronin et al., we also observed that participants were more likely to report having been accurate or modest than biased in their self-assessment,  $\chi^2(2) = 111.52, p < .001$ , followed by an underestimation of the bias. We will discuss this project in regard to open-science teaching.

Keywords: replication, preregistration, teaching

## 9:45

### Despicable Me: When self-awareness leads to a motivation to escape the self.

Jean Moneger, Armand Chatard, and Leila Selimbegovic

Université de Poitiers – Centre de recherche sur la cognition et l'apprentissage (CeRCA) : CNRSUMR 7295 – France

According to objective self-awareness theory (Duval & Wicklund, 1972), in the state of self-awareness (i.e., when directing one's attention to oneself), people tend to compare themselves to their standards. This can activate self-discrepancies, often resulting in negative emotions (Higgins, 1986). Selimbegovic and Chatard (2013) reasoned that self-awareness could increase the cognitive accessibility of possible ways to escape this aversive emotional state. Suicide being one efficient way of escaping the self (Baumeister, 1990), they hypothesized and observed increased accessibility of suicide-related words in a lexical decision task (LDT) in a mirror exposure (vs. no mirror exposure) condition. In order to further examine this effect, we aimed to 1) replicate the original study and 2) extend it using a different method for inducing self-awareness and a measure of the accessibility of the general concept of escape, to generalize the effect. We chose to use subliminal priming of self-awareness (Silvia & Phillips, 2013) in order to examine whether the link between self-awareness

and accessibility of general escape-related words would appear with a more subtle induction.

In a self-registered replication (N=150), we replicated the procedure followed by Selimbegović and Chatard (2013). Participants performed a LDT where they had to decide if displayed strings of letters were words or non-words. Target words were neutral, negative (e.g. suffering) or suicide-related (e.g., rope). Participants were randomly assigned to one of two conditions: half of them were facing a mirror, while in the control condition the mirror was facing the wall. As in the original study, this pre-registered replication showed that participants facing a mirror were faster at detecting suicide-related words (adjusted for negative words) than participants in the control condition. However, the effect was significant only when a different, more conservative and more robust method for outlier detection was used, namely suppressing data points beyond two median absolute deviations from the median (Leys, Ley, Klein, Bernard & Licata, 2013).

In a second study (N=150), participants performed another LDT. The targets were neutral words (e.g., chair) or escape-related words (e.g., to run away). Participants were randomly assigned to one of two experimental conditions: half of them were primed with their first names for 33ms before seeing each target strings of letters, while the other half were primed with a random string of letters for 33ms on each trial. We used the same method for excluding outliers as in the previous study. As predicted, participants subliminally primed with their first names were faster to detect escape-related words (adjusted for neutral words). Taken together, these results suggest a reliable link between self-awareness and accessibility of both general and specific escape-related words across two different manipulations of selfawareness, one supraliminal and one subliminal. Such findings are consistent with the idea that self-awareness induces a desire to escape this state, even when cues used for inducing self-awareness are not consciously treated.

Keywords: self, awareness, escape, suicide, subliminal priming, mirror

### Room Merlot - Session 15: Evaluative conditioning

8:45

#### Revisiting the Contingency Sensitivity of Evaluative Conditioning: An Ecological Conceptualization

Mandy Hütter and Max Ihmels

Eberhard Karls Universität Tübingen – Germany

We reassessed the sensitivity of evaluative conditioning (EC) to contingencies under an ecological framework. In an EC procedure, a conditioned stimulus (CS) is paired with a positive or negative unconditioned stimulus (US) and as a result acquires US valence. Our ecological definition of contingency is dependent on two aspects: The conditional probability of a US being positive given a specific CS occurs and the probability of a US being positive given any other CS occurs. We assume that the more a stimulus is predictive of positive (negative) valence, the more positive (negative) should the evaluative shift be. This implies relativity and context sensitivity of EC. That is, for a CS to demonstrate a positive evaluative shift, it needs to be paired with positive USs with a higher probability than other CSs in the environment.

We manipulate ecological contingencies by introducing CSs paired with different ratios of positive and negative USs and by manipulating the overall positivity (negativity) of the context. In five experiments (total N = 530), we found support for the impact of the ecological contingencies on evaluative shifts. Further analyses, however, showed that the effects are mainly driven by the ratio of positive to negative pairings of a stimulus independent of the overall positivity (negativity) of the stimulus context. This finding is consistent with both associative and propositional theories of attitude formation models.

The finding that evaluative shifts were independent of the valence of the context entails several failed replications of a published experiment that demonstrated the context sensitivity of EC. The present research thus raises the question under which conditions the context influences the representation of a given CS-US pairing.

Finally, despite the lack of effect on other dependent measures, valence base-rates exerted a direct effect on subjective conditional probabilities. Interestingly, we observed an intriguing pattern across experiments that co-varied with the size of the CS set. That is, in the two most complex experiments, we obtained an assimilation effect. In the two simplest experiments, we observed contrast effects. This result is consistent with the notion

that memory is reconstructive and supports memory-based accounts of evaluative conditioning. Further implications and avenues for future research will be discussed.

Keywords: attitudes, evaluative conditioning, contingency sensitivity, context sensitivity

**9:15**

## The primacy of valence in affective learning: Evidence from an evaluative conditioning paradigm

Bruno Richter<sup>1</sup> and Mandy Hütter<sup>2</sup>

<sup>1</sup>Eberhard Karls Universität Tübingen – Germany ; <sup>2</sup>Eberhard Karls Universität Tübingen – Germany

Evaluative conditioning (EC) is a major social cognitive paradigm that allows studying how attitudes are acquired and changed. In EC paradigms, the attitude toward an unconditioned stimulus (US) is transferred onto a conditioned stimulus (CS) via the pairing of these stimuli. In most research and theorizing on EC, the attitude toward a stimulus is construed in terms of valence, i.e., how unpleasant or pleasant a stimulus is. However, valence constitutes only one aspect of affective experience. We argue that the focus on valence as the sole relevant dimension of evaluation might be too restrictive. This notion is in line with current influential theories of affect that propose a multidimensional approach. According to Core Affect Theory, two dimensions account for the psychological construction of emotion- valence and arousal. Alternative theories incorporate a third dimension-dominance, entailing functional features assumed to qualitatively differ from valence and arousal, consequently explaining variance over and above the former dimensions. Thus, the question arises whether conditioning procedures have the potential to transfer other dimensions of affect. We report a series of three experiments using EC paradigms to study (1) the transferability of the suggested dimensions, (2) the dissociation of the underlying mechanisms, and (3) the functional contingencies of the dimensions. Study 1 (N=48) employed a classical EC paradigm: We asked participants to give preratings for faces on the dimensions valence, arousal, and dominance. The most neutrally evaluated faces were selected and used as CSs. As USs, we created two sets of stimuli. Set 1 included stimuli scoring low in valence, high in arousal, and low in dominance. Conversely, Set 2 included stimuli scoring high in valence, low in arousal, and high in dominance. During conditioning, all CSs were randomly assigned to one of the sets. Each CS has been randomly paired with five USs of the respective set. Finally, participants gave postratings for CSs on all dimensions. We found evidence for a transfer of valence and arousal, but not of dominance. Study 1 provides evidence for a bidimensional conception of affect, hence supporting Core Affect Theory. Study 2 (N=48) was designed to replicate and extend the findings of Study 1 by investigating whether the observed effects are attributable to conditioning or could be explained by the repeated presentation of CSs. Therefore, we used the same design but included a mere exposure condition in which CSs were shown without USs. Valence and arousal, but not dominance were transferable. However, we found mere exposure effects that explained considerable variance in the dependent measures. Taking mere exposure into account, our results only yield evidence for the conditioning of valence. Study 2 suggests that changes of affect via repeated pairings are caused by several underlying mechanisms. Study 3 (N=72) will disentangle the effects of valence and arousal in an orthogonal design. Deconfounding valence and arousal will help us to understand better the dimensions' functional properties. In conclusion, we discuss the methodological implications of our work for EC research as well as theoretical contributions to research into emotions.

Keywords: evaluative conditioning, affect, valence, arousal, dominance

**9:45**

## The Role of Diagnosticity in Evaluative Conditioning

Tal Moran, Sean Hughes, Pieter Van Dessel, and Jan De Houwer

<sup>1</sup>Ghent University – Belgium

Evaluative conditioning (EC) refers to a change in liking towards a neutral stimulus (CS) due to its pairing with a valenced stimulus (US). In this paper we test if diagnosticity the extent to which information is relevant

or valid for assigning a specific valence to a stimulus - influences EC effects. Specifically, we examined if manipulating the nature of the CS and US, and by implication their perceived relatedness, would moderate resulting EC effects. Critically, dual process (e.g. Rydell & McConnell, 2006) and propositional (e.g., De Houwer, 2018) accounts of EC make distinct predictions about the impact of diagnosticity on EC. Whereas the former predict a moderating effect of diagnosticity primarily on explicit evaluation, propositional accounts predict a moderating effect on both explicit and implicit evaluation. Across three pre-registered experiments (N = 575), we manipulated diagnosticity by pairing either positive (e.g., Puppies, Sunset) and negative nouns (e.g., Cemetery, Feces) (i.e., low diagnostic USs) or positive (e.g., Agreeable, Educated) and negative adjectives (e.g., Reckless; Foolish) (i.e., high diagnostic USs) together with two unknown men (CSs) in a job hiring context. We then measured explicit evaluations using self-reported questions and implicit evaluations via the AMP (Mann et al., 2019; Experiment 1) or the IAT (Greenwald, McGhee, & Schwartz, 1998; Experiments 2-3). At the end of each experiment, participants completed some exploratory measures including their memory of the pairing, reactivity and demand compliance.

Results indicated that explicit evaluations were stronger in the high relative to low diagnosticity condition (Experiment 1:  $F(1,219) = 73.33$ ,  $p < .001$ ,  $\eta^2 = .25$ ,  $BF_{10} = 4.253e+12$ ; Experiment 2:  $F(1,100) = 35.12$ ,  $p < .001$ ,  $\eta^2 = .26$ ,  $BF_{10} = 1.072e+6$ ; Experiment 3:  $F(1,216) = 53.18$ ,  $p < .001$ ,  $\eta^2 = .20$ ,  $BF_{10} = 3.563e+8$ ). In contrast, the impact of diagnosticity on implicit evaluations varied across experiments. In Experiment 1 diagnosticity did not influence AMP scores,  $F(1,219) = 1.21$ ,  $p = .272$ ,  $\eta^2 = .01$ ,  $BF_{10} = 0.257$ , whereas it did in Experiments 2-3 when an IAT was employed, Experiment 2:  $F(1,100) = 11.90$ ,  $p = .001$ ,  $\eta^2 = .11$ ,  $BF_{10} = 21.179$ ; Experiment 3:  $F(1,216) = 7.48$ ,  $p < .001$ ,  $\eta^2 = .03$ ,  $BF_{10} = 7.390$ .

Taken together, our results suggest that diagnosticity also plays an important role in EC. Moreover, the impact of diagnosticity on implicit evaluations (Experiments 2-3) fits more readily with the predictions of propositional accounts (e.g., De Houwer, 2018) than those of dual processes models (e.g. Rydell & McConnell, 2006) for EC.

Keywords: Evaluative Conditioning, Diagnosticity, Implicit Evaluation, Explicit Evaluation

### Room Sauvignon - Session 16: Trust

8:45

#### To Trust or to Mistrust – Which is the More Dominant Response Tendency? Evidence from a Dominant Behavior Test (DBT)

Maayan Katzir<sup>1</sup> and Ann-Christin Posten<sup>2</sup>

<sup>1</sup>Tel Aviv University [Tel Aviv] – Israel ; <sup>2</sup>University of Cologne – Germany

Whether individuals are more prone to trust or to mistrust have increasingly interested economists and psychologists in recent years. The present research addresses this question using a novel paradigm – the Dominant Behavior Test. Particularly, we designed a novel trust game in which participants have to quickly decide whether to trust or mistrust a trustee (i.e., Player B) according to a color rule, while ignoring a distractor name written in this color. The color rule indicates whether the trustee was forced to behave in a trustworthy or untrustworthy manner. The distractor names were provided by participants of people they either trust or mistrust in real life. Capitalizing on effects that were vastly studied in basic cognitive psychology research for decades, we find in three pre-registered experiments (N's = 103, 100, 173, in Experiments 1-3, respectively) that trust, similar to other dominant response tendencies (e.g., word reading within the Stroop paradigm), poses more interference and is more facilitating, faster, and harder to switch to than mistrust. Specifically, we find that trust responses facilitate trust responses, (Magnitude = 32.27, 22.15, 28.85 ms), more than mistrust responses facilitate mistrust responses, (Magnitude = 8.67, 5.15, 11.47 ms),  $F$ 's = 15.30, 7.80, 12.43,  $p < .001$ ,  $p = .006$ ,  $p < .001$ ,  $\eta^2 = .17$ , .10, .08, in Experiments 1-3, respectively. We also find that trust responses interfere with mistrust responses (Magnitude = 22.02, 26.61, 21.48 ms), more than mistrust responses interfere with mistrust responses, (Magnitude = 4.03, 8.18, 1.90 ms),  $F$ 's = 8.18, 6.19, 14.05,  $p = .005$ , .015,  $p < .001$ ,  $\eta^2 = .10$ , .08, .09, in Experiments 1-3, respectively. In addition, we find a larger switch costs when switching to trust responses (Magnitude = 83.23, 82.51, 88.02 ms) than when switching to mistrust responses (Magnitude = 66.3,

55.28, 78.69 ms),  $F$ 's = 7.74, 18.31, 4.14,  $p$  = .007,  $p$  < .001,  $p$  = .044,  $\eta^2$  = .09, .19, .03, in Experiments 1-3, respectively. Finally, we find that trust responses ( $M$  = 677.60, 697.16, 715.63 ms) are faster than mistrust responses ( $M$  = 732.24, 748.84, 759.78 ms),  $F$ 's = 43.15, 29.27, 33.88, all  $p$ 's < .001,  $\eta^2$  = .37, .28, .20, in Experiments 1-3, respectively. These effects are obtained in the trust game (Experiments 1 & 2) as well as the distrust game (Experiment 3) and even hold if the expected utility of both trust and mistrust is equal (Experiment 2). Introducing the Dominance Behavior Test as a novel paradigm, we show that trust dominates mistrust and discuss how this paradigm can be useful to determine dominant responses in multiple social as well as non-social domains.

Keywords: trust, trust game, distrust game, dominant response tendency, switch asymmetry, facilitation/interference effects

**9:15**

## Distributions of Trust

Hans Alves and Pınar Ugurlar

University of Cologne – Germany

One of the main themes in Social Psychology is the prevalence of negative attitudes towards minorities, atypicality and non-normativity. However, research in that regard usually confounds the typicality of individuals or social groups with specific content such as sexual orientation, or ethnicity. In order to assess the influence of mere typicality in social perception, I will introduce a "minimal typicality" paradigm and present data from 5 Experiments which reveal a fundamental social disadvantage of atypical individuals. Specifically, information regarding the typicality of target persons' attitudes that are completely arbitrary (i.e., preferences for simple shapes) is sufficient to elicit strong differences in perceived trustworthiness. That is, atypical individuals are perceived as less trustworthy compared to typical individuals. I discuss the origins of this typicality preferences, and its implications for intergroup conflict, cooperation, and societal peace.

Keywords: typicality, trust, minority, majority

**9:45**

## Trust me, I'm an expert: Does trust in in-group and distrust in out-group explain the ideology-over-policy effect?

Gabriela Jiga-Boy<sup>1</sup>, Eleanor Heath, Yasmin Ford, and Dion Curry

<sup>1</sup>swansea university – United Kingdom

A 'party-over-policy' effect translates into greater support for policies proposed by one's own political party than for those proposed by the opposition, regardless of policy content (Ehret, Van Boven & Sherman, 2018). For example, Democrats (vs. Republicans) are more likely to support a climate change policy put forward by the Democratic legislators and opposed by Republican legislators. But why is that the case? Here, we inquire whether trust or distrust in experts is a partisan issue. Trust is a basic expectation of goodwill in others (e.g., people, relationships, or institutions), or the willingness to make 'one's self vulnerable to exploitation by [a] stranger with the expectation of some benefit in return' (Dunning et al., 2012). It can be seen as originating in identity concerns because shared identities increase trust (Fritsche et al., 2018). Recent political contexts (e.g., UK, USA) have witnessed lapses in citizens' trust regarding those governing (Edelman Trust Barometer, 2019). If that also translates into distrust in non-partisan expertise/scientific evidence (Imhoff et al., 2018), it can further undermine any attempts (partisan or bipartisan) for sensible policymaking, such as curbing climate change or sexual harassment. In Study 1 ( $N$  = 192), we manipulated the ideology of the source delivering a policy proposal. Participants read a (fictitious) proposal to criminalise sexual harassment in the UK. We predicted a source ideology (left-leaning vs. right-leaning British media) x person ideology (liberal/conservative) interaction: participants would support the policy more if the source ideology matches their own ideology. However, only liberal ideology, estimates of liberal peer support, and trust in liberal voters (the ingroup) predicted support for the policy, but not their interaction. For Study 2 ( $N$  = 1000, data collection planned for June 2019), we first predicted that participants (Leave vs. Remain voters at the UK referendum to leave the EU) would support a food safety policy more if it was proposed by the side matching their ideology (UK vs. the EU, respectively). Secondly, we predicted that this effect would be explained by dynamics of

voters' trust in experts. With this study, we aim to capture the identity politics of trust in (scientific) expertise: whether people perceive scientific experts as similar vs. dissimilar to them, whether a lack of shared identity with experts explains voters' distrust in them, and whether this could be reversed if voters are reminded how much they value independent thinking and how much current political parties, instead, exploit the partisanship issue. The implications of these findings for intergroup dynamics and political attitudes are discussed.

Keywords: Trust, ideology, identity politics

### Room Cabernet - Session 17: Power

**13:00**

#### The cognitive load of poverty: from attention mechanisms to the role of income inequality

Alice Normand<sup>1</sup> and Nicolas Sommet<sup>2</sup>

<sup>1</sup>LAPSCO – Université Clermont Auvergne, CNRS – France ; <sup>2</sup>University of Lausanne – Switzerland

Poverty is a phenomenon that tends to persist and reproduce itself (i.e., the "vicious circle of poverty"). Whereas social sciences have focused on the structural and political dynamics subtending the vicious circle of poverty, behavioral sciences have rather focused on individuals' behaviors that further perpetuate poverty. In that vein, Mani, Mullainathan, Shafir and Zhao (2013) have proposed that low-income individuals would behave in inappropriate ways because poverty imposes a cognitive load (via intrusive thoughts and worries), which impedes cognitive functioning and subsequent behavior. In series of studies, they found that financial concerns decreased low-income individuals performance on fluid intelligence and cognitive control tasks. The present research (3 studies) first aims at identifying the attention mechanisms involved the cognitive load of poverty (studies 1-2). Intrusive thoughts and worries may indeed hijack attention resources from any other ongoing activity, thereby leading to performance decrements. Study 1 (online; N = 103 all comers adults) tested whether low-income individuals' attention is exhausted by concurrent financial concerns. Participants were randomly assigned to one of the two conditions involving an experimental induction of either low or high financial concerns. While thinking about how to solve these problems, participants performed a visual search game (20 Where's Waldo puzzles) of various difficulty levels. Participants' household income was finally collected. As predicted, in the high-financial concerns condition, the lower the participants' income the longer it took them to perform the difficult visual task puzzles, thereby suggesting a shortfall of selective attention resources. Study 2 (lab experiment; N = 179 undergraduate students) further investigated the attention processes potentially impacted by the cognitive load of poverty by using the Attentional Network Test allowing to assess three attentional components: alerting, orienting and executive components. Given that suppressing interfering thoughts solicits executive control, we hypothesized that low-income students specifically experience executive attention impairments when high-financial concerns are experimentally induced. However and contrary to Study 1 (and to most studies in the literature), participants in Study 2 were undergraduate students whose current financial situation was hard to assess given the diversity of social situations among students. As a consequence our main IV (income) was not usable. Based on the literature, maternal level of education was then chosen as a proxy for poverty. Results thus only provided a partial support for our prediction by showing that not income but maternal education positively predicted students' executive attention performance in the high-financial concerns condition. As it happens, studying the psychological impact of poverty requires going beyond the mere indicator of income. Study 3 (online; N = 776 US adults) therefore aimed at investigating how income inequalities may further fuel the cognitive load of poverty. Based on the same design as Study 1, results suggested that for participants living in areas heavily marked by income inequality (as measured by the GINI coefficient), the lower their income and the lower their performance on the visual search task. Limits of and perspectives on the cognitive load of poverty hypothesis are further discussed.

Keywords: poverty, income inequality, attention, cognitive load

**13:30****Group Member Status Moderates People's Impression of the Group as a Whole**Christophe Blaison<sup>1</sup>, Roland Imhoff<sup>2</sup>, and Till Kastendieck<sup>3</sup><sup>1</sup>Université Paris Descartes-Sorbonne Paris Cité – France ; <sup>2</sup>Universität Mainz – Germany ; <sup>3</sup>Humboldt Universität zu Berlin – Germany

We present four online experiments that investigated how the behavior of one male group member that had either a low or a high status influenced people's impression of the group as a whole. In the first three experiments (N = 279, N = 281, N = 280), participants were first told about one male group member that behaved a) in a laudable or in a despicable manner and b) that had either a low or a high status within the group. Then, the participants evaluated the group as a whole. In Experiment 1 the group was a political party, whereas it was an unspecified organization in Experiment 2, 3 and 4. In Experiment 1 and 2, the behavior was related to the use of the group's funds whereas in Experiment 3 and 4 it was related to sexual behavior towards women. The results of Experiments 1 to 3 show that the behavior of the group member and his status have an interactive effect on participants' impression of the group. In line with main-stream theories of assimilation and contrast (e.g., Schwarz & Bless, 1992), a group member that behaved despicably elicited a less favorable impression of the group than one that behaved in a laudable manner (Experiment 1 and 2). However, this assimilation effect was moderated by status. A laudable group member of high status elicited a more favorable impression of the group than a laudable member of low status (Experiments 1 to 3). The results were more differentiated for despicable members. In an unspecified organization, a despicable member of high status caused a more negative impression of the group than a despicable member of low status (Experiments 2 and 3). In a political party, assimilation of the group towards the despicable member was similar irrespective of his status (Experiment 1). Experiment 4 (N = 800, data collection in progress [Mturk]) was specifically designed to tap into the process behind the status effect. It distinguishes between the effect of the power provided by the hierarchical position, the representativeness of the group member and the responsibility attributed to the other members on the status effect.

Keywords: Status, impression formation, groups, generalization, assimilation

**14:00****A third person perspective on mimicry: Imitating others reduces perceived dominance and power**

Oliver Genschow and Hans Alves

University of Cologne – Germany

It is widely known that individuals have the propensity to automatically mimic each other. Past research on the consequences of mimicry has produced an impressive number of findings indicating the importance of such mimicking behavior for dyadic social interactions. That is, mimicry typically leads to a more positive interaction experience and increases liking among interactions partners. Surprisingly, research on mimicry has almost exclusively focused on its effects among interaction dyads. This ignores that dyadic interactions rarely take place in isolation, but oftentimes, are observed by a third-party. For example, during job interviews, interactions among friends, or televised interviews, interactions between two people are observed by others. As individuals automatically judge and categorize others, the question arises what inferences observers draw about interaction partners when one interaction partner mimics the other. In the present research, we investigated within three high-powered and preregistered experiments (total N = 900) to which degree observed mimicry is linked to perceived dominance and power.

In all experiments we presented participants with videos of dyads interacting with each other. In these videos one person always mimicked three movements of the other person. In order to account for any possible confounds, we committed to a rigorous counterbalancing of various stimulus properties. That is, we experimentally controlled for (1) specific characteristic of a person (e.g., clothing style, facial expression, hairstyle, etc.), (2) the experimenter's instructions to mimic the other person, and (3) spatial location (i.e., left or right) where the models were sitting.

In Experiment 1 (N = 300), participants observed two videos. In each video a person mimicked the movements of another person. After each video, participants rated perceived dominance of both persons. The results demonstrate that persons who mimic others' movements are perceived as less dominant than persons who initiate the movements. In Experiment 2 (N = 300), we tested whether inferences regarding dominance are due to mimicking the same movements, or whether merely responding with any kind of movement is sufficient to produce the effect. The results replicate the findings obtained in Experiment 1 and demonstrates furthermore that merely responding to another person's movements with any kind of action is sufficient to produce this effect. Going one step further, Experiment 3 (N = 300) found that individuals who mimic movements are also perceived as having less power than individuals who initiate movements.

In sum, by taking into account a third-party observer perspective, our research furthers the understanding of mimicry as a social phenomenon and opens a whole new research pathnamely the investigation of observed mimicry.

Keywords: Mimicry, Imitation, Person perception, Inferences, Attribution, Power, Dominance

### Room *Malbec* - Session 18: Self in Comparison

**13:00**

#### Revisiting assimilation & Contrast: A Curve Fitting Approach

Paul Barker<sup>1</sup>, Roland Imhoff<sup>2</sup>, and Ron Dotsch<sup>3</sup>

<sup>1</sup>University of Cologne – Germany ; <sup>2</sup>Johannes Gutenberg - University of Mainz – Germany ; <sup>3</sup>Universiteit Utrecht – Netherlands

Are you intelligent? Is your neighbour outgoing? Judgments we make about ourselves and others often depend heavily on the standard we use as comparisons. The direction (upward or downward) and the extremity of the chosen standard (moderate or extreme) are two key variables that have been postulated to influence the outcome pattern of these comparisons (Mussweiler, 2003). When judging a neutral target, a moderate standards used as a comparison will lead to the assimilation of the judgment towards the given standard. For extreme standards, on the other hand, judgments will contrast away from these standards. Previous investigations in this area have often been limited to single dimensions and preselected standards for what constitutes moderate and extreme (e.g. Hitler vs. Shirley Temple in Herr, 1986). Furthermore, what exactly constitutes a moderate or extreme standards is ill defined in the literature and this lack of clarity means comparison outcomes are the only way to judge if a standard is moderate or extreme, leaving large amounts of flexibility to form judgments of standard extremity and justify results post-hoc. To address these issues, the current work takes a finer grained curve fitting approach to the measurement of the theoretically suggested social comparison response patterns and its dependence on standard extremity. It uses digitally generated facial stimuli to assess a broader array of social evaluative dimensions in a data-driven fashion as well as one nonsocial numeric domain. This allows precise manipulation of the extremity of the standards and consequently a more precise estimation of what constitutes moderate or extreme, and therefore where assimilation might become contrast. In this manner, we will empirically revisit the question, whether extreme comparison standards always evoke contrastive judgments and whether moderate standards always produce assimilative judgments. A series of 4 experiments (N = 540) measured the patterns of assimilation and contrast in evaluative judgments of neutral targets in the presence of a comparison standard that varied in its extremity up to +/- 4SD from neutral, measured in 81 steps of 0.1SD measure 4 times. This was done using digital facial images for evaluative dimensions of facial Extraversion (Study 1), Trustworthiness (Study 2) and Dominance (Study 3); and for non-social numerical dot estimates (Study 4). Curve fitting revealed dimension specific patterns of assimilation and contrast that were in line with previous findings (Barker, Imhoff & Dotsch 2019; in prep). The dimension of Extraversion was unique in producing the pattern of assimilation and contrast predicted in the literature, with moderate standards producing assimilation and extreme standards producing contrast. Trustworthiness and Dominance showed exclusively opposing effects, with only assimilation and only contrast respectively. In the non-social domain, numerical estimates of dot patterns produced the most clear and pronounced contrast patterns in the set with no signs of assimilation. The findings of the current project show a clear pattern of dimension specific comparison effect that do not reflect the theoretical predictions. The possible underlying processes and, resulting implications for

theory and measurement will be discussed.

Keywords: Social Comparison, Assimilation, Contrast, Facial Dimensions, Trustworthiness, Dominance, Extraversion, Dot Estimates

### 13:30

#### Does positive mood impact social comparison processes?

Luc Vieira<sup>1</sup>, Marie-Pierre Fayant<sup>2</sup>, and Florence Spitzenstetter<sup>1</sup>

<sup>1</sup>Laboratoire de Psychologie des Cognitions – université de Strasbourg : EA4440 – France ; <sup>2</sup>Université Paris Descartes - Paris 5 – Université Paris Descartes-Sorbonne Paris Cité – France

Social comparison is one of the most ubiquitous features of human social life (Baldwin & Mussweiler, 2018). Social comparison can lead either to assimilation (i.e., self-perception moves toward the standard value) or to contrast (i.e., self-perception moves away from the standard value; Suls & Wheeler, 2008). The field so far has investigated many variables responsible for the emergence of assimilation/contrast (e.g., the standard extremity, Mussweiler, Rüter & Epstude, 2004). Few studies however have investigated the potential impact of mood on social comparison processes. It seems crucial though because we can assume that in many cases social comparison processes take place in situations where the individual is not neutral from the point of view of his emotional feelings. We chose to work on positive mood because we are more often in positive mood in daily life, so it is more interesting to understand how this kind of affective state can moderate social comparison processes (Wilhelm, Shoebi & Perrez, 2004). Research shows that positive mood induces a global focus (Gasper & Clore, 2002) and that global focus leads to assimilation (Huntsinger, 2014). We expect the default contrast effect generally observed (Gerber, Wheeler & Suls, 2018) on neutral mood condition to decrease in positive mood condition. We have tested these hypotheses in three different studies. In the first study, we recruited 232 participants for two supposedly independent studies. First, to induce positive mood, participants had to recall and write down in detail a happy event they experienced in the past and to induce neutral mood, participants had to report an ordinary routine day (Krauth-Gruber & Ric, 2000). Next, participants read the profile of a same-sex person. For half of the participants, the profile picture was an attractive person (high standard) and for the other half, the profile picture was an unattractive person (low standard). Finally, participants selfevaluated their physical attractiveness. We observe the predicted interaction effect: in the neutral mood condition, we observe a contrast effect. This effect disappears in the positive mood condition.

In a second study, 348 participants were exposed to a similar procedure to the first study, with the difference that they had to read the description of a same sex student who adjust either very well or very poorly to college (Mussweiler, 2001). Again, we obtain the same interaction effect. While in neutral mood condition whereas we observe a contrast effect, in positive mood, we observe an assimilation effect.

In a third study, we wanted to replicate these results with another mood induction procedure. We used six movie clips from Schaefer et al., (2010) database (three clips to induce positive mood and three clips to induce neutral mood). Two hundred and seventy-eight participants completed this study online. The results we obtained differ from those of the two previous studies: We observe a more pronounced contrast effect in positive mood condition than in neutral mood condition.

The results of these three studies will be discussed in light of different models relating to the link between emotion and cognition.

Keywords: Social comparison, Positive mood, Assimilation, Contrast, Emotion/cognition

### 14:00

#### Looking up or looking down? The everyday impact of social comparison processes on self-regulatory goals

Kathi Diel and Wilhelm Hofmann

Ruhr University Bochum, Head of Social Psychology – Germany

We aimed to investigate the everyday impact of social comparison processes on people's self-regulatory goals and behaviors. In a first exploratory sampling study (N=1004), participants reported a recent social comparison process related to one of their long-term goals (e.g. healthy eating, saving money). We assessed the direction of the comparison on a continuum (from downward to upward comparison), the comparison standard (e.g. friend or stranger), participants' emotions before and after the comparison (e.g. guilt, happiness), and willingness to invest in the goal (e.g. effort). In line with the social comparison literature on goal pursuit, participants more often compared upward than downward. According to our predictions, upward comparisons were associated with less positive emotions (e.g. feeling unhappy, guilty) and downward comparisons were associated with more positive emotions (e.g. feeling happy, proud). Contrary our predictions, downward comparisons (and not upward comparisons) were positively correlated with encouragement (to reach the goal) and with the willingness to invest effort (towards the goal). In a second preregistered experience-sampling study, we investigated social comparison processes and their correlates and consequences with a focus on motivational and emotional states in a large, heterogeneous sample of 425 adults in Germany. Participants received five signals over the course of five days, resulting in more than 10,000 measurement occasions. For each signal, participants reported a (recent) social comparison they may have engaged in. As in Study 1, upward comparisons were associated with negative affect and feelings of guilt and downward comparisons with positive affect and feelings of pride. Also in line with Study 1, downward (vs. upward comparison) predicted motivation after comparison. However, in contrast to Study 1 but in line with social comparison literature, effort investment (towards a goal) was predicted by upward comparisons. We will further investigate moderating effects of perceived control or change perceptions (for instance, are people more motivated from upward standards if they believe change is possible?).

Keywords: Self, Regulation, Motivation, Social Comparison, Experience Sampling

### Room Merlot - Session 19: Evaluative conditioning

13:00

Are there two independent evaluative conditioning effects in relational paradigms?  
Dissociating the effects of CS-US pairings and their meaning

Niels Kukken<sup>1</sup>, Mandy Hütter<sup>1</sup>, and Rob Holland<sup>2</sup>

<sup>1</sup>University of Tübingen – Germany ; <sup>2</sup>Radboud university [Nijmegen] – Netherlands

Evaluative Conditioning (EC) describes the change in liking of a neutral stimulus (CS) due to its pairing with a positive or negative stimulus (US). Although EC is an established and robust effect, recent research into EC shows that information about the meaning of the CS-US pairing can exert strong effects on the size and direction of the EC effect. For example, CSs that are paired with a negative US (e.g. physicians are often paired with diseases) are typically evaluated neutral or positive when the meaning of the pairing is positive (e.g. physicians are only paired with diseases because they cure diseases). This finding has been interpreted as support for two independent types of EC effects. However, previous research devoted to this question relied on aggregated evaluative measures, allowing for alternative interpretations. In five experiments, we developed and validated a multinomial processing tree (MPT) model to distinguish effects of the pairings from effects of the meaning of the pairings: In the EC procedure, participants were instructed to learn for each CS if it was paired with a positive or negative US, and if the CS started or stopped a US. So, the meaning of the CS-US pairing could either be positive (CSs that started (stopped) a positive (negative) sound) or negative (CSs that started (stopped) a negative (positive) sound). Next, participants completed a memory task in which they reported for each CS whether it had a positive or a negative meaning. We told participants to guess the meaning of the CS when they did not remember the meaning. To quantify the degree to which a memory response is the result of encoding the CS-US pairing (p-parameter) or the meaning of the relation (m-parameter), we assumed in our MPT model that participants respond in line with valence of the CS-US pairing when they do not remember the meaning. This hypothesis was supported in all experiments. Furthermore, we showed that while the p-parameter was related to the strength of a standard EC effect (measured on a continuous evaluation scale) for all CSs, the m-parameter was related to the strength of a standard EC effect for starting CSs but a reversed EC effect for stopping CSs. Finally, we validated the interpretation of the m- and p-parameter by showing that the m-

parameter (and not the p-parameter) increased when participants were instructed to pay additional attention to the meaning of the CS- US pairing. Additionally, we showed that the p-parameter (and not the m-parameter) was sensitive to the valence of the CS prior to conditioning. In sum, our findings thus suggest that two independent EC effects contribute to evaluative change in a relational EC paradigm. Our model offers a helpful method for future research in that it allows for an assessment of the effects of manipulations on processes rather than overall performance on an evaluative measure.

Keywords: evaluative conditioning, attitudes, dual, process models, process dissociation, multinomial processing tree models

### 13:30

## Dissociations between Learning Phenomena do Not Necessitate Multiple Learning Processes: Mere Instructions about Upcoming Stimulus Presentations Differentially Influence Liking and Expectancy

Simone Mattavelli<sup>1</sup>, Jan De Houwer<sup>2</sup>, and Pieter Van Dessel<sup>2</sup>

<sup>1</sup>University of Milano-Bicocca – Italy ; <sup>2</sup>Ghent University – Belgium

Expectancy learning and evaluative conditioning are learning phenomena that are similar in that they both rely on stimuli pairings, but different with regard to the variable that changes as the result of the pairings. On the one hand, expectancy learning is defined as the impact of stimulus pairings on the extent to which the presence of one of these stimuli generates an expectancy of the presence of the other stimulus. On the other hand, evaluative conditioning refers to the impact of stimulus pairings on liking. Prior research showed that the degree of statistical contingency between the presence of stimuli moderates changes in expectancies about the presence of those stimuli (i.e., expectancy learning) but not changes in the liking of those stimuli (i.e., evaluative conditioning). This dissociation is typically interpreted as evidence for dual process models of associative learning. We tested an alternative account according to which both types of learning rely on a single process propositional learning mechanism but reflect different kinds of propositional beliefs. We conducted two pre-registered studies (N=420) in which we tested the impact of instructed pairings on both expectancy learning and evaluative conditioning. Crucially, both statistical contingency (high vs. low) and US-CS co-occurrence (high vs. low) were manipulated. In line with the idea that changes in liking reflect beliefs about stimulus co-occurrences whereas changes in expectancy reflect beliefs about stimulus contingency, we found that evaluative ratings depended only on instructions about whether a stimulus would co-occur with a positive or negative stimulus whereas expectancy ratings were influenced also by instructions about individual stimulus presentations. Results are discussed in light of their implications with regard to alternative theoretical accounts for expectancy learning and evaluative conditioning.

Keywords: expectancy learning, evaluative conditioning, cognition

### 14:00

## Role of the HRV in evaluative conditioning

Théo Besson<sup>1</sup>, Oulmann Zerhouni<sup>1</sup>, and Johan Lepage<sup>2</sup>

<sup>1</sup>Laboratoire Parisien de Psychologie Sociale – Université Paris Nanterre : EA4386 – France ; <sup>2</sup>Université Grenoble Alpes – Université Grenoble Alpes, Université Grenoble Alpes – France

It has long been considered that evaluative conditioning occur in an automatic fashion (i.e., associative way; Levey & Martin, 1975; Gawronski & Bodenhausen, 2006) but in recent years, a series of research has shown that the judgements creation process more likely to be driven by higher level processes that incurs cognitive resources (i.e., propositional way; Mitchell, De Houwer, & Lovibonds, 2009). The research we are conducting is based on predictions from propositional model propositional model by studying heart rate variability (HRV) as a proxy for executive functioning and working memory efficiency (Hansen, Johnsen, & Thayer, 2003). Each participant was received individually. We started by measuring the variability of the participants' heart rate using an electrocardiogram (ECG). This was done in three stages (i) a first relaxing period (10 minutes), (ii) a second of stress in which participants were confronted with impossible tasks and received negative feedback

and (iii) a last one in which participants relaxed again. Following this, participants passed an evaluative conditioning paradigm (which is an elementary evaluative learning paradigm) in which they (i) first evaluate neutral stimuli (i.e., CS; geometric figures), then (ii) these neutral stimuli were randomly matched with positive or negative valence stimuli (i.e., US; more or less threatening faces and more or less smiling faces). Each pair was then presented eight times on the screen. After that, (iii) the participants did a contingency memory task. Each CS was presented sequentially and participants were asked if they recalled the valence of the stimulus with which they had been associated. (iv) Participants then evaluated new CS (v) before the CS were counter-conditioned (new pairs of CS/US were formed in which each CS was associated with an US with exactly the opposite valence to the first match). Finally (vi), participants re-evaluated each CS. We finished data collection and are currently treating ECG data, and the results will be presented at ESCON 2019. We expect that participants with high HRVs will generally be more sensitive to evaluative conditioning because they have more cognitive resources than participants with low HRVs. For the same reasons, we expect that participants with high HRVs will be more sensitive to counter conditioning than those with low HRVs. We also expect participants with a low HRV to be more sensitive to negative evaluative conditioning because they focus their attention more quickly on negative stimuli (e.g., Park, Vasey, Van Bavel, & Thayer, 2013) than participants with a high HRV. Finally, we expect low and mildly threatening faces to be perceived as more negative by individuals with a low HRV because they generally perceive the environment as more threatening than individuals with a high HRV (Beffara, 2016).

Keywords: Evaluative conditioning, Heart Rate Variability

### Room Sauvignon - Session 20: Trust

13:00

#### Navigating the Social Environment: A Sampling Approach to Trustworthiness

Marco Biella and Mandy Hütter

Eberhard Karls Universität Tübingen – Germany

The social environment is a complex world and being able to navigate it requires the ability to identify who is trustworthy and who is not. Such skill relies on impression formation capabilities that need some information as input and a way to process the information gathered. While a considerable corpus of research focused on investigating biases in the information processing system, the present work aims at testing whether the information gathering process alone can explain evaluation biases without the need of assuming biased information processing. Specifically, the present research introduces a sampling approach to the well-documented negativity bias in trustworthiness evaluation.

We will present the first study of a newly initiated series of experiments. The present experiment (planned N = 80) is divided into three phases. In the first exploration phase, participants are resented with nine other alleged players. Here, the participants' goal is to learn about other players' trustworthiness by freely sampling information about their previous behavior in a trust game. Letting participants choose which of the other players they want to learn more about allows the information gathering process to take place under unconstrained and ecological conditions. In the second phase, participants rate the other players' trustworthiness. The corpus of information gathered is the only evidence available on which participants can base their ratings. Consequently, if such information is comprised of a small and non-representative negative sample, the trustworthiness evaluation is inevitably biased. In the third phase, participants freely choose with which player(s) they want to play the trust game. This unconstrained exploitation phase allows for the investigation of the impact of the sampling process on subsequent behaviors.

We expect that information gathered is the product of an active sampling process that may not preserve the actual distribution of features in the environment. Such skewed information sample may lead to biased evaluation regardless of the flawlessness of the process that transforms information into evaluations. Moreover, when the sampling is unconstrained by the experimental design (i.e. subjects can freely explore and sample from the environment) information may be biased due to the active sampling processing.

A preliminary analysis of the yet incomplete data set (current N = 67) confirmed our prediction by showing that

individuals preferentially selected sources of positive information, sampling negative pieces of information led subjects to collect less additional information from that specific source. Such stopping rule inevitably triggered the consequences associated with making inferences based on a small non-representative sample of mostly negative observations. In fact, sample size significantly predicted trustworthiness ratings even when controlling for the positivity of the evidence sampled. Additionally, sample size predicted exploitation frequency in the last phase even after controlling for trustworthiness ratings. In summary, without having to assume biases in information processing, the sampling approach provides a parsimonious theoretical framework that allows deducting novel predictions opening the way for a new research perspective on social cognitive phenomena.

Keywords: sampling approach, decision making, trustworthiness, evaluation

### 13:30

#### Why people may believe false information despite knowing better

Christian Unkelbach<sup>1</sup>, Felix Speckmann<sup>1</sup>, and Rainer Greifeneder<sup>2</sup>

<sup>1</sup>Universität zu Köln – Germany ; <sup>2</sup>Universität Basel – Switzerland

The modern world experiences strategic misinformation, fake news, and the apparent loss of belief in traditionally credible sources such as universities. Thus, the question of how and why people believe information to be true is a prominent research topic. I will approach this question from a Brunswikian perspective: Truth is a distal concept that cannot be assessed directly. Instead, people must use cues that may be indicative of information's factual truth status. I will distinguish between two broad classes of cues, namely informational cues (e.g., knowledge sources, advice) and experiential cues (e.g., familiarity, fluency). The former cues may be misleading; that is, a source may be faulty or advice may be wrong. The latter cues are a priori true; if information feels familiar or is processed fluently, the experience has an inherent truth value. With this assumption, one may explain and predict when and why people believe false information despite knowing better. I will present several experiments that pit these two classes of cues against each other and show that they jointly inform judgments of truth. However, if the cues contradict each other, people still use the experiential cue, even for highly relevant topics and with tangible costs for themselves in an incentivized paradigm. First, I will shortly summarize a meta-analytic overview (Study 1) on our previous research that pitted these cues against each other. We used a repetition-advice paradigm. Repetition provides experiential influences (again: familiarity, fluency). Advice provides informational influences. Participants observed repeated (within the same experimental session) and new statements. In addition, they received advice whether the presented statement is true or false. The advice was labelled from 50% to 100% valid. That is, in the case of 100% (factually correct) advice, participants knew whether a statement was false or true. Using rating scales from "certainly true" to "certainly false", we observed that adherence to advice varied linearly with advice validity. Further, we observed a constant additive effect of repetition on truth judgments.

Second, we conducted two further studies that used binary forced choices ("true" vs. "false") as dependent variables. In addition, we provided incentives for each choice. If participants classified a statement correctly as "true" vs. "false", they could earn ten Euro cents for 120 statements. Despite this substantial incentive (i.e., up to 12 Euro), the influence of repetition on truth judgments persisted, providing strong support for a non-informational basis for beliefs.

The present framework thereby provides a basis for explaining false beliefs and suggest novel paths for debunking false information.

Keywords: truth evaluation, beliefs, experiential information, processing fluency, communication

### Room Cabernet - Session 21: Grounded Cognition

### 14:35

#### When my Actions Shape the Way You Look: Experience-Based Properties of Approach/Avoidance Can Bias the Perception of Others

Marine Rougier, Mathias Schmitz, and Vincent Yzerbyt

Université Catholique de Louvain – Belgium

Approach/avoidance (re)actions are closely tied to environment perception. These actions can be automatically triggered when faced with positive or negative stimuli (e.g., Chen & Bargh, 1999) and, interestingly, the reverse effect is also true: Participants have a more positive (negative) evaluation of a stimulus they were previously trained to approach (avoid) (e.g., Kawakami et al., 2007). Alongside other attitude change paradigms, Approach/Avoidance Trainings (AATs) are also considered as valuable paradigms. Yet, one remarkable feature that has not been investigated so far is that AATs are rooted in real-world experiences. According to a grounded cognition framework (e.g., Barsalou, 1999), these experiential properties could play a central role in AAT effects: Because performing an AAT should call on past experiences of approach/avoidance coded in memory, it should also call on properties pertaining to these actions, as 1) properties relative to stimuli perception and 2) sensory(motor) properties relative to approach/avoidance actions themselves. The first property of an AAT is that it should not only trigger a more positive/negative evaluation of stimuli but, above all, the perception that is routinely associated with approach/avoidance. Accordingly, instead of capturing stimuli evaluation, we investigated AAT's effects on perception. In all our experiments, we trained participants to approach/avoid two groups of neutral faces (i.e., to approach blue-background faces and to approach yellow-background faces) and we measured the average face perception of these groups (i.e. using the reverse correlation; e.g., Dotsch & Todorov, 2012). In Experiment 1, after an AAT, the facial representation of the approached group was rated more positively (i.e., more trustworthy, less aggressive and criminal) by independent judges than the one from the avoided group. In Experiment 2, we showed that this effect was restrained to attributes specific to the action itself, that is, this effect applied on traits relevant for approach/avoidance actions (i.e., action-relevant traits; e.g., trustworthiness) but not on traits of the same valence that are not relevant (i.e., action-irrelevant traits; e.g., cleverness).

The second property of an AAT is that its sensory(motor) aspects should contribute to the biased perception given that approach/avoidance are supposedly coded in memory through their sensory(motor) activations. To manipulate approach/avoidance actions in our experiments, we used a task reproducing the core sensory aspects of approach/avoidance actions (i.e., the Visual Approach/Avoidance by the Self Task [VAAST]; Rougier et al., 2018). In Experiment 3A and 3B, we showed that performing approach/avoidance actions with the VAAST led to a larger bias on perception compared to a condition with only the semantic instruction of approach/avoidance. In Experiment 4, we showed that the sensory aspects implemented in the VAAST (i.e., the visual aspects of moving forward/backward) had an added contribution in leading to a biased perception (compared to a condition not having these sensory aspects). Overall, over five pre-registered experiments, we provide evidence that when relying on procedures allowing to capture such effects, the experiential properties of AAT can have a moderating role on perception. This emphasizes the special status of AAT as an attitude learning paradigm.

Keywords: grounded cognition, approach/avoidance, perception, reverse correlation

**15:05**

## Validation of the ISP131001 Sensor for Measuring Peripheral Body Temperature

Elisa Sarda and Richard A. Klein

Université Grenoble Alpes – France

The aims of this study were twofold. First, we tried to validate a new wireless temperature sensor (the ISP131001 sensor) to measure peripheral body temperature in everyday life. Second, we developed a standard data format for social thermoregulation research so that it is easier to explore social thermoregulatory mechanisms across many studies. Several studies have now linked social behavior and temperature regulation, yet the mechanisms are not entirely clear (for an overview, see IJzerman & Hogerzeil, 2017). To better understand these proximal mechanisms, we aim to conduct experience sampling research combined with frequent peripheral temperature measurement to map temperature fluctuations in daily life to behavior in close relationships. Previous solutions to measure skin temperature tethered participants to a computer, making mobile measurement impossible. The ISP131001 sensor is convenient to wear in many situations and permits the study of social thermoregulation in daily life. To validate our device, we measured peripheral temperature of 24 participants with the ISP131001 sensor and with another (already validated) device (ADInstruments MLT442/A Skin Temperature Probe). We took measurements in three blocks: 1) At baseline, 2) after

participants dipped their hand in cold water, and 3) after participants dipped their hands in hot water. Then, we examined the correlations between two measures in all 3 blocks. Because we don't have a strong prior about the effect size in different conditions, we will use a splithalf validation. This means that we will split our data in two samples, explore the data in the first sample and we confirm our hypothesis in the second sample. To create a standard data format for social thermoregulation research, we included in our study some social variables previously linked to body temperature. For instance, we measured relationship quality, social integration, social connection, health, and demographic variables like sex, weight, height, and medicine consumption (IJerman et al., 2018; Van Acker et al., 2016). The sensors and added measures permit an examination of potential mechanisms linking social behavior and temperature regulation through experience sampling. Data analysis is still in progress, but preliminary results on the exploratory sample indicate a significant and substantial correlation between the ISP131001 sensor and the validated device ( $r(7514)=.82$   $p<.001$ ). More results and both theoretical and practical implications will be presented.

Keywords: Validation, wearable sensor, peripheral temperature

### Room *Malbec* - Session 22: Self in Comparison

**14:35**

#### Compensation on self-perception following threatening comparisons: failed replications

Julie Terache and Vincent Yzerbyt

Université Catholique de Louvain – Belgium

Social judgments typically revolve around the two fundamental dimensions of warmth and competence (e.g. Fiske et al., 2002, 2007). Research shows that these two dimensions are often characterized by a negative relation, an effect called "compensation" (e.g. Yzerbyt, Provost & Corneille, 2005, for a review, see Yzerbyt, 2016). Previous research on compensation has focused on comparisons between groups or individuals, but not much has been done as to the emergence of compensation on the self. In order to investigate compensation in self-perception, we built on Helm, Abele, Müller-Kalthoff, and Möller (2017). In their experiment, participants received an upward or downward comparison feedback on competence and then evaluated themselves on warmth (Helm et al., 2017, Expt. 2a). Their results showed that participants who received an upward comparison feedback perceived themselves as warmer than those who received a downward comparison feedback. These findings thus suggest the existence of compensatory dynamics in self-perception. Across three experiments, we tried to replicate this paradigm while addressing two of its limitations: the lack of a control condition, needed to clarify the direction of the effect, and the measure of both dimensions, needed to assess compensation proper. Across all 3 experiments ( $N=310$ ), the interaction between condition and dimension was never significant. Exploratory analysis from Experiment 1 showed that participants with an upward comparison feedback perceived themselves to be less competent (i.e., ability facet of competence) than those who received a lateral (control) feedback, but also to be less warm. This pattern failed to replicate in Experiments 2 and 3, as there were no significant differences between the conditions in the self-evaluations of competence and warmth, even when reproducing Helm et al.'s (2017) exact same design. These findings shed doubt as to the emergence of compensation in self-perception. We discuss the implications of our results for both social comparison and social judgment research.

Keywords: social comparison, dimensional comparison theory, compensation, warmth, competence

**15:05**

#### Social learning of attitudes: when and how do other people's reactions influence explicit and implicit evaluations?

Sarah Kasran, Sean Hughes, and Jan De Houwer

Ghent University – Belgium

Research on social learning has demonstrated that how a subject responds to a stimulus can change after

observing the reaction of another social agent to that stimulus. However, within the literature there is surprisingly little research on how the reactions of others might influence evaluative responses. Across five studies, we investigated the impact of observational evaluative learning on both explicit and implicit evaluations. In each study, we used a social learning task in which participants watched videos of another person (the ‘model’) tasting two new cookies, and reacting positively to one cookie and negatively to the other cookie. Explicit evaluations of the cookies were then assessed via self-report ratings, whereas implicit evaluations were investigated using a personalized implicit association test (pIAT). We repeatedly found strong observational evaluative learning effects: the model’s reactions to the cookies influenced participants’ explicit and implicit evaluations of those cookies. We also tested a number of predictions derived from a propositional account of observational evaluative learning. In Experiments 1-3, we tested the idea that observers need to evaluate certain propositions as true in order to arrive at the inference that they will like one cookie and dislike the other cookie. Specifically, we manipulated the perceived relation between the model’s overt reactions and internal experiences by telling participants that the model was told to fake his reactions (Experiments 1-3), or that the model was asked to show the opposite reaction to how he actually felt (Experiment 3). The results indicated that the first manipulation influenced explicit but not implicit evaluations, whereas the second manipulation influenced both, reversing the effect on explicit evaluations and eliminating the effect on implicit evaluations. In Experiments 4-5, we examined another prediction of the propositional account: that merely receiving verbal information about contingencies can lead to similar changes in evaluations as observing those contingencies for oneself. In Experiment 4, we manipulated whether participants watched the aforementioned videos, received minimal instructions about the content of those videos, or both. Although the minimal instructions were sufficient to induce changes in both explicit and implicit evaluations of the cookies, the changes were larger in the other two conditions. In Experiment 5, we tested if the informational quality of the instructions mattered, by including a more elaborate instruction condition. This condition led to larger changes in explicit evaluations than the minimal instructions, although the changes were still larger when participants actually watched the videos. However, implicit evaluations did not differ between any of these three conditions. The final part of the talk will focus on the implications of our findings for cognitive theories of evaluation as well as on future directions for investigating the effects of social learning on evaluations.

Keywords: social learning, attitudes, evaluative learning, propositional theories, relational information, learning via instructions

### Room Merlot - Session 23: Moral Cognition

14:35

The impact of the self-interest bias on preschoolers’ judgements of moral hypocrites

Katarzyna Myslinska Szarek<sup>1</sup>, Wieslaw Baryla<sup>2</sup>, and Konrad Bocian<sup>4,3</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities – Poland ; <sup>2</sup>SWPS University of Social Sciences and Humanities – Poland ; <sup>4</sup>SWPS University of Social Sciences and Humanities – Poland ; <sup>3</sup>University of Kent – United Kingdom

Moral hypocrisy is usually defined as an inconsistency between the immoral behaviour of individuals and their publicly or privately created image of being a moral person. Studies with adults, showed that people tend to perceive moral hypocrites as more immoral than liars or those who do not present themselves as ethical people. Although the idea of moral hypocrisy is old enough, it has never been directly investigated with respect to preschoolers. Therefore, the primary goal of the presented studies was to explore how children aged 4 to 6 years would judge moral hypocrites. We devised three studies (N = 318) which aimed to test whether children’s moral judgments about moral hypocrites depend on the moral character of the hypocrite (Study 1) and the child’s interest (Study 2). Additionally, we explored a possible explanation of the interplay between children’s interest and inconsistent behaviour of the hypocrite by testing whether children perceive the hypocrite as making sacrifices for them (Study 3).

In all three studies, children observed a show involving four puppets in which one of the puppet expressed a negative opinion about the immoral behaviour of another puppet (moral hypocrisy condition) or did not say anything and thus not presented himself as a moral character (control condition). Afterwards, together with the

target puppet children build a tower of blocks. During the task, the target puppet from the first part behaved adversely (destroyed the tower of blocks of another puppet) to what it had preached earlier as immoral behaviour (hypocrite condition). In the control condition the target puppet acted in the same way, but never before expressed negative opinions about harming another puppet. In Studies 2 and 3 we additionally engaged children's interest by rewarding them with stickers for completing the task together with target puppet (the hypocrite or the neutral character). When the second part ended, we asked children how much they liked and trusted the hypocrite and whether its behaviour was good or bad.

The results confirmed that children, like adults, judged the hypocrite negatively, liked and trusted him or her less. However, we found that this effect was severely limited when children were able to claim a reward due to the hypocrite's behaviour. We found that when the child's interest was involved, the hypocrite was judged more favourably than a non-hypocrite. The most plausible explanation of this effect is that children perceive the hypocrite who helps them benefit as an individual sacrificing his or her personal values for the sake of the child's interest. Overall, our findings suggest that when self-interest is involved, moral hypocrites may be judged more positively than non-hypocrites. This offers a new and interesting perspective in both the field of social developmental psychology and research on moral hypocrisy.

Keywords: moral hypocrisy, moral judgments, preschoolers

**15:05**

## Thou Shalt Not Kill, Thou Shalt Not Interfere – The Foreign Language Effect in Moral Dilemma Judgment

Max Hennig and Mandy Hütter

Eberhard Karls Universität Tübingen – Germany

A vast amount of research on the process of moral judgment has been inspired by hypothetical sacrificial dilemmas, the application of which has been firmly established in the psychological literature. In this paradigm, in which one has to decide whether or not to kill one person in order to save the lives of several others, not killing is usually assumed to suggest adherence to absolute norms (termed a "deontological judgment"), while killing is taken to indicate sensitivity to consequences of an action (a "utilitarian judgment"). According to prominent theories of dilemma judgment, these decisions result from two functionally distinct processing systems, with an emotional system contributing to deontological and a rational system contributing to utilitarian considerations, respectively.

Research employing this approach indicates the existence of a foreign language effect (FLE), such that frequency of "utilitarian judgments" increases when scenarios are considered in a foreign compared to one's native language. This is usually interpreted by assuming that presentation in a foreign language either dampens emotional responses to the distressing dilemma nature (reduced intuition account) or induces a rational style of information processing (increased deliberation account). However, the boundary conditions of this effect are somewhat unclear and methodological limitations prevent past research from speaking clearly about its underlying mechanisms.

Specifically, the conventional dilemma paradigm fails to estimate deontological and utilitarian considerations independent from one another, because it conflates them in the same outcome measure. Moreover, it systematically conflates "utilitarian judgments" with action or interference, and "deontological judgments" with inaction or inertia. As such, the conventional paradigm is unable to 1) directly test reduced intuition and increased deliberation accounts against one another, and 2) assess in how far the FLE results from changes in more general response tendencies, such as a preference for inertia over interference (or vice versa).

We applied multinomial modeling to address these limitations, and estimated endorsement of consequences (central to utilitarianism), endorsement of norms (central to deontology), and tendency towards inertia as three independent model parameters. The results of two experiments (N1 = 247, N2 = 574) conducted with German native speakers contradict the increased deliberation account. In contrast, they do provide limited support for the reduced intuition account, in the sense that foreign language presentation reduced norm-endorsement. However, the data also suggest this effect to be restricted to high-involvement dilemmas, designed to enforce psychological proximity, while not applying consistently to low-involvement dilemmas. Moreover, in those high-involvement dilemmas foreign language also increased a tendency towards inertia, which translates into

less "utilitarian judgments" in the conventional paradigm. Taken together, our findings provide some support for the reduced intuition account, while also suggesting the FLE to be in part an artefact resulting from uncontrolled response tendencies (inertia). On a broader note, the effect on response tendencies illustrates the limitations of theories, which attempt to explain dilemma judgment by assuming a neat one-to-one mapping of responses (e.g. "utilitarian judgment") to process properties or underlying systems (e.g. rational).

Keywords: moral judgment, dilemmas, multinomial modeling, decision making, language

## Room Cabernet - Session 24: Stereotyping

9:00

## Online news as a basis for stereotypes against refugees

Felix Speckmann and Christian Unkelbach

University of Cologne – Germany

Social-cognitive research is traditionally conducted in laboratory settings. In our own laboratory research, we test whether "pseudo-contingencies" (Kutzner & Fiedler, 2017) may serve as a basis for stereotypes about and prejudice against refugees. Pseudo-contingencies arise when the base-rates of focal stimuli align; for example, when there many immigrants in a neighborhood and many people are poor, people see a contingency between immigration and poverty. However, logically, the base-rates are not necessarily informative for the contingency; in fact, the true contingency might even be opposite to the subjective pseudo- contingency. The subjective pseudo-contingency is strengthened if there is an additional neighborhood with few immigrants and few people are poor.

To complement our experimental data on stereotypes against refugees based on pseudo- contingencies, we used a technique called web scraping. The technique automatically downloads and tidies large amounts of data in text or number form. We downloaded over 100,000 news articles from several well-known German news websites (Spiegel Online, Welt, etc.) from the year 2016. We examined all articles using sentiment analysis. Sentiment analysis matches each word of any given article with a sentiment lexicon that contains valence ratings for each word separately. We used SentiWS (Remus, Quasthoff, & Heyer, 2010) to retrieve valence ratings and averaged them for each article. This analysis showed a negativity bias (e.g., -.16 on a scale from -1 to 1 for Spiegel Online) for news articles in general. Furthermore, 10% of all articles contained the word "refugee" at least once. Thus, our sample of online news reports is an information ecology with prevalent negativity and with relatively frequent mentions of refugees. This should lead to a pseudo-contingency of refugees and bad news. In addition, if one assumes that most people generally experience little negativity in their daily lives (e.g., Diener & Diener, 1996) and most people have not much contact with refugees, this should strengthen the subjective contingency of refugees and bad news, providing an ecological explanation for stereotypes about and prejudice against refugees.

We discuss our findings and give an outlook on analyzing potential true contingencies in the data set as well. This is mainly done through analyzing co-occurrence of terms and latent semantic analysis. Latent semantic analysis uses document-term matrices which represent the occurrence of any term in a given document. This matrix is decomposed using singular value decomposition and the resulting semantic space can be used to measure the association between different terms. For example, this procedure can be used to investigate the relationship between the word "refugee" and words such as "threat" or "danger", pointing to co-occurrence-based explanations of stereotypes against refugees. Thereby, the present contribution illustrates how classic social-cognitive research may be complemented and informed by using large and publicly available data sets.

Keywords: stereotypes, pseudo, contingencies, information ecology, web scraping, large data sets, online news

9:30

## Are we all performing the same task? The moderating factors influencing the multinomial model structure associated with the Stereotype Misperception Task.

Rémi Courset<sup>1</sup>, Dominique Muller<sup>1</sup>, Marco Perugini<sup>2</sup>, Karl Christoph Klauer<sup>3</sup>, Regina Reichardt<sup>4</sup>, Jeffrey W. Sherman<sup>5</sup>, Juliane Degner<sup>6</sup>, and Andrew Rivers<sup>7</sup>

<sup>1</sup>LIP/PC2S – Univ. Grenoble Alpes – France ; <sup>2</sup>University of Milano-Bicocca – Italy ; <sup>3</sup>University of Freiburg – Germany ; <sup>4</sup>University of Regensburg – Germany ; <sup>5</sup>University of California, Davis – United States ; <sup>6</sup>University of Hamburg – Germany ; <sup>7</sup>University of British Columbia – United States

We now know that indirect measures could be in part the reflection of non-automatic processes (e.g., Fiedler &

Bluemke, 2005) because no task is process pure (Hütter & Klauer, 2016). Accordingly, to disentangle the different cognitive processes underpinning the evaluative responses in indirect measures, one can use multinomial models (e.g., Conrey et al., 2005). This is the case with the Stereotype Misperception Task (i.e., SMT; Krieglmeier & Sherman, 2012) in which participants have to judge the threatening nature of a target face drawing preceded by a photo of a Black or White face. Thanks to the multinomial models associated with this task, we can assess both the level of activation (SAC) and application (SAP) of a stereotype (here, the association between Black faces and threat), as well as the proportion of the target threat detection (D). Previous studies performed in our lab showed that the respective influence of these processes could change depending on several factors (e.g., type of prime, North African vs. Black faces). Crucially, the most important process leading to the evaluative response could be linked either to the prime (i.e., SAC-dominant model) or to the target (D-dominant model). This work aimed to investigate if some factors, situational and dispositional, could contribute to these changes.

One hundred and thirteen participants performed a North African/White SMT, where we manipulated both the prime (the photo) prototypicality and the target (the drawing) threat discernibility. We reasoned that increasing (decreasing) the difference between the targets and decreasing (increasing) the difference between the primes should increase the fit of the D-dominant model (SAC-dominant model). Contrary to our hypotheses, manipulating the target or the prime did not influence which model (i.e., the SAC-dominant or the D-dominant model) prevailed (WAIC weight intervals between 0 and 1). Nevertheless, after performing the SMT, participants had to fill out a direct measure of prejudice against North African individuals (Dambrun & Guimond, 2001) and we found that the more participants expressed prejudice against North African individuals, the more they had a tendency to follow the SAC-dominant model,  $t(111) = 2.65$ ,  $p = .009$ ,  $\eta^2_p = .06$ . A possibility is that participants with high prejudice were more focused on North African/White faces, either because of the associated threat or because they had a fewer willingness to not be influenced by these faces. In line with this idea, we found a link between the explicit prejudice and the SAP parameter,  $t(111) = 4.06$ ,  $p < .001$ ,  $\eta^2_p = .13$ . It was also possible that participants with low prejudice had a stronger willingness to not focus on the prime (not being influenced by the faces) and thus focused more on the targets. Also in line with this idea, we found a negative link between the explicit prejudice and the D parameter,  $t(111) = 2.66$ ,  $p = .009$ ,  $\eta^2_p = .06$ . These results are, to the best of our knowledge, the first to show that individual differences can influence the prevalence of different cognitive processes underpinning the evaluative responses in indirect measures.

Keywords: multinomial models, indirect measures, stereotypes

## 10:00

### Projection and stereotyping as different processes that predict discrimination: The moderating role of construal level

Jochim Hansen and Sophie-Therés Graffius

University of Salzburg – Austria

Projection and stereotyping have been proposed as two different strategies that affect mental state inferences (e.g., Ames, 2004), which may influence discrimination. Drawing on construal level theory (Lieberman & Trope, 2010), we propose that construal level (i.e., the tendency to represent a situation on an abstract versus concrete level) differentially influences the degree to which discrimination is related to projection or stereotyping, respectively. More specifically, we hypothesized that a high construal level would cause individuals to use more group stereotypes when interacting with an outgroup member—resulting in more or less discrimination depending on the valence of the group stereotype. This should be the case because a high construal level increases the use of stereotypes (McCrea, Wieber, & Myers, 2012). A low construal level, in contrast, should cause individuals to base their behavior on the degree to which they project their own thoughts and feelings on the target person. This should be the case because a low construal level reduces the perceived distance between oneself and another person (Leviatan, Trope, & Liberman, 2008), which in turn should increase the impact of projection (Ames, 2004). To test these ideas, participants in the present study ( $N = 263$ ) were primed either with a low construal or a high construal mindset using the category-exemplar task (Fujita et al., 2006). Next, participants read a vignette about a Syrian asylum seeker (named Kemal) who borrowed a cell phone from a passerby to make a call. Several mental states could be inferred from this situation (e.g., to which degree Kemal was happy to call his friend, was embarrassed to ask for the phone, intended to extend the call). Participants predicted

Kemal's mental states on eight items (target-rating). Additionally, they indicated how they would feel and think (own-rating) and how a typical group member would feel and think in the situation (group-rating) when they were in the same situation, on the same scales (order counterbalanced). The intraindividual correlations between own- and target-ratings served as a measure for projection; the intra-individual correlations between the group- and target-ratings served as a measure for stereotyping (see Ames, 2004). Next, discrimination against Kemal was assessed with eight items (e.g., How likely would you recommend Kemal as a roommate?), and the valence of the stereotype was measured with the attitude towards immigrants scale (Stephan, Ybarra, & Bachmann, 1998). As hypothesized, the results showed a three-way interaction between stereotyping, valence of the stereotype, and construal level on discrimination: A negative attitude towards immigrants positively predicted discrimination depending on the degree of stereotyping (i.e., the more participants stereotyped, the more did their attitude predict discrimination), but this interaction particularly occurred when participants were primed with an abstract mindset. In contrast, projection negatively predicted discrimination, but this effect particularly occurred when participants were primed with a concrete mindset. Taken together, the findings indicate that discrimination is based more on stereotypes when one thinks abstractly, and more on projection when one thinks concretely.

Keywords: construal level, discrimination, projection, stereotyping

### Room *Malbec* - Session 25: Ostracism

**9:00**

#### Sharing Exclusion in Group Fosters in-Group Identification

Thibault Jaubert, Peggy Chekroun, and Patrick Gosling

Laboratoire Parisien de Psychologie Sociale – Université Paris Nanterre : EA4386 – France

Social ostracism or social exclusion occurs when an individual feels rejected or ignored by others (Williams, 2007, 2009). Need for belonging might operate as an adaptive and phylogenetic mechanism ensuring social animal survival (Baumeister & Leary, 1995; Pankseep, 2003). The feeling of social loss is particularly harmful and seems to share neurocognitive and biological qualities with physical pain (Eisenberg, Williams, & Lieberman, 2003; MacDonald & Leary, 2005). Thus, social pain acts as a signal for social damages like physical pain indicates that physical tissues are potentially injured. While recent investigations have shown that sharing physical pain as well as dysphoric experiences in group promote interpersonal bonds (Bastian, Jetten, & Ferris, 2014; Whitehouse et al., 2018), no experimental studies – to our knowledge – assessed whether sharing social exclusion in group might consolidate group affiliation. For these reasons, we conducted two studies. In the first study, 168 participants played a Cyberball game (Williams & Jarvis, 2006), from which they were excluded (vs. included) by the out-group. This exclusion could be individual or shared with an in-group member. Groups were artificial. Following the game, participants indicated their fundamental needs satisfaction and mood before responding to an in-group identification measure. Results indicated a main effect of the exclusion manipulation on needs satisfaction and mood. Interestingly, sharing exclusion in group does not moderate needs satisfaction and mood. However, and accordingly to our predictions, participants excluded in group displayed more identification to their group than the participants in the three other conditions. In the second study, 218 participants were categorized according to a false feedback questionnaire (instead of the arbitrary decision used in the first study). After the group-categorization manipulation, participants followed the same procedure as in the first study. Results supported the previous findings. Exclusion impairs fundamental needs and mood, but sharing rejection with an in-group does not moderate the negative impact of exclusion, supporting a reflexive response hypothesis to exclusion (Williams, 2007). Importantly, simple slopes analyses showed that sharing exclusion in group strengthens group identification comparing to in-group inclusion. Moreover, contrasts analyses revealed that participants in the shared- exclusion condition identified more to their group than participants in the shared-inclusion condition. The question of how shared social distress in group may alleviate reflective response to social exclusion through identification as well as social benefits among intragroup members caused following social pain are discussed.

Keywords: social exclusion, social pain, Cyberball, fundamental needs

**9:30****Investigating motivated social exclusion with the Cybertask Paradigm**

Selma Rudert

University of Koblenz and Landau – Germany

Social exclusion is a common phenomenon in societies. An important question is why individuals choose to exclude others and which individuals are at a high risk of getting excluded. From an evolutionary perspective, it is likely that individuals will especially exclude others who are perceived as bad cooperation partners and threaten the functionality of a social group. We suggest two reasons why a person might be perceived as a bad cooperation partner: (a) because they threaten group cohesion by violating social norms or (b) because they threaten group resources by being a burden to the group. We thus predict that in order to maintain group cohesion as well as protect group resources, individuals should be more likely to exclude others who behave in such a manner.

We investigated these assumptions within five studies, using a novel online paradigm called Cybertask that allows for both a systematic investigation of the underlying reasons behind social exclusion as well as an assessment of actual behavior. In Cybertask, participants take the role of a group leader and are being told that they are supposed to form a group for a subsequent group task. After receiving information about the potential group members, participants choose whether they want to work with all other group members or whether they want to exclude one person. Violation of social norms as well as being a burden to the group was manipulated both via presenting participants with different behavior of the target person (rude and incompetent, Studies 1-3) as well as by giving them information about individual's personality (agreeableness and conscientiousness, Studies 4 and 5)

In line with our hypotheses, results show consistently over all five studies that participants choose to exclude individuals more often when they perceived them as either rude/disagreeable or incompetent/careless. The effect was limited to individuals being perceived as negative on either dimension. Both individuals who were perceived as positive as well as average were less likely to be excluded from the group.

Taken together, in this contribution we offer an explanation for the question why individuals choose to exclude others. The presented studies offer strong empirical evidence that the two theoretically suggested reasons (maintaining group cohesion and group resources) guide exclusionary behavior. Moreover, we present Cybertask, a promising new paradigm to investigate motivated social exclusion in the future. Implications and new avenues for research will be discussed.

Keywords: social exclusion, ostracism, group relations, social motivation

**10:00****Who's in, who's out? Testing the relative nature of ostracism**

Corinna Michels

University of Cologne – Germany

How do we know that we are ignored and excluded? Previous research assumes a crude and quick detection of any cue of ostracism favoring false alarms over misses. Consequently, many studies reported on unmoderated levels of reflexive need threat following variations of classic ostracism paradigms (e.g. van Beest, Williams, & van Dijk, 2011). However, humans usually assess their social standing by comparing to others, especially when threat and uncertainty are high (Festinger, 1954). Considering the social nature of ostracism, it is likely that the assessment of one's level of belongingness also depends on a comparison of the self to others. Knowing about other's exclusion should thus reduce the usually reported threat to one's fundamental human needs. However, if ostracism is solely based on the cue of not being part of the focal group, then need threat should be unaffected by the situation of others. I tested this hypothesis in two studies. A lab study (N = 333) made use of a vignette manipulation in which individuals imagined to be the only person not being asked to join a group of colleagues (full ostracism), to be one out of three colleagues who are not asked to join (partial ostracism), or to join a group of colleagues (full inclusion). Then, participants answered the need threat scale (Gonsalkorale & Williams, 2007) to assess reflexive need threat. The results illustrate that highest levels of reflexive need threat are

reported in the full ostracism condition and lowest levels in the full inclusion condition. In line with the hypothesis, partial ostracism, ameliorated need threat: Need threat in the partial ostracism condition was significantly lower than in the full ostracism condition and significantly higher than in the full inclusion condition.

In Study 2, an online study (N = 292), participants were instructed to mentally visualize a ball-tossing interaction by engaging in Cyberball with eight other players. Four conditions were realized: participants were the only player not receiving the ball (full ostracism), participants and two other players did not receive the ball (partial ostracism), participants and five other players did not receive the ball (non-majority ostracism) or they received the ball to the same extent as the other 8 players (full inclusion). They then indicated their reflexive need threat. The results replicate the standard Cyberball findings, as participants in the full ostracism condition indicate higher need threat than participants in the full inclusion condition. However, the partial ostracism as well as the non-majority ostracism conditions did not differ significantly from the full ostracism condition, indicating the same level of reflexive need threat for all three ostracism conditions.

Whereas Study 1 suggests that an individual's relative standing can moderate need threat, Study 2 does not support this assumption. Future studies will help to reconcile these diverging findings by testing whether different manipulations are more or less prone to relative assessment of ostracism, whether the effect depends on potential reconnection partners being present or whether information about one's own and the standing of others has to be more salient.

Keywords: Ostracism, Social Comparison, Social Exclusion, Social Cognition, Need Threat

### Room *Merlot* - Session 26: Spontaneous Trait Inferences/Dissonance

9:00

#### Is hypocrisy always equally disturbing? - the matter of value importance

Marta Maj and Malgorzata Kossowska

Jagiellonian University [Krakow] – Poland

In the presented two studies, we aim to shed some light on cognitive dissonance (Festinger, 1957), specifically its reduction, in the context of hypocrisy. Induced hypocrisy (Aronson, Fried, & Stone, 1991) is a well-established experimental paradigm that allows researchers to measure real-life dissonance emerging from experiences in line with people own beliefs (in opposition to some classical experiments that require counter-attitudinal actions). People elaborate on cognitions (in our case - values) that they consider important, and recall some conflicting cognitions: their own transgressions in bringing them into life. Dissonance that results from the notion of own inconsistency is disturbing and as such should be reduced immediately. The main goals of two presented studies are, namely, to test whether values of greater importance cause more cognitive dissonance and whether that, in turn, predicts more intense dissonance reduction. We test those hypotheses each time in a different context, so regarding different Schwartz's value (2012).

The first study was run in the laboratory settings, on a sample of 89 students, in the context of Achievement. The dependent variable was self-perception on three value-related dimensions: one directly linked to dissonance (Achievement), one - close, but not directly linked (Self-direction Thought) and one completely different (Benevolence-dependability). The results showed that facing hypocrisy, people start to perceive themselves as worse on dimension close, but not directly linked to dissonance (Self-direction Thought). We did not confirm the role of value importance in this relation, which might be due to reduced sample size (initially 147 students).

The second study was also run in the laboratory settings, on a sample of 151 students, in the context of Universalism-nature (so environmental concern). This time, before induced hypocrisy manipulation, we manipulated value importance by displaying a movie about global warming. The dependent variable was the choice of strategy and intensity of dissonance reduction - after acknowledging own hypocrisy, participants could choose among an article advising changes to become 'greener', one that trivialized the issue, one that gave some excuses for not behaving 'green', and finally one about something completely different (distraction). We want to check how value importance and dissonance magnitude influence the choice of dissonance reduction and the intensity of it (measured by the proportion of the article participant read).

Conducting studies in the context of different values, we hope to better understand the universal mechanisms of dissonance reduction. Various ways of dissonance reduction we apply in our studies allow us to broaden our inference, making it more ecologically valid at the same time.

Keywords: dissonance, dissonance reduction, values, hypocrisy

**9:30**

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## Spontaneous Inferences from Behavior and Stereotypes

Jana Mangels and Juliane Degner

Universität Hamburg – Germany

People routinely and spontaneously draw dispositional inferences based on others' behavior. This tendency is referred to as Spontaneous Trait Inferences (STIs). Previous research documents robust and strong STI-effects throughout the person perception literature. From the domain of stereotype research, we know, however, that stereotypes allow forming impressions of others without effort and without considering individualizing information, such as individual behavior. Thus, when observing individual actors for whom social category stereotypes are easily applicable, behavior and group membership may both activate trait inferences, that may be congruent or incongruent with each other. Recent studies investigated this interaction between inferences from behavior and stereotypes, and indeed demonstrate that stereotypes have a moderating effect on trait inferences from behavior (e.g., Ramos et al., 2012; Wigboldus et al., 2003; Yan, Wang, & Zhang, 2012). For instance, when participants read the statement "The garbage man solved the science quiz", the trait inference smart was weaker than when "The professor" demonstrated the same behavior (Wigboldus et al., 2003). While this effect is well documented, the underlying psychological mechanisms are not yet well understood: When individual behavior is stereotype-inconsistent, one could assume that stereotype labels prevent the activation of stereotype-inconsistent inferences from behavior entirely, on the other hand, one could assume that traits are automatically inferred from behavior in any case, but their effect on person construal is somehow inhibited. Similarly, it remains an open question whether individual behavior that increases the application of trait inferences to individuals – for example via increased accessibility of congruent traits, or reduces trait inferences – for example when the behavior is attributed to the social category membership or social role rather than to individual characteristics of the actor. The present research aims at weighing in on these questions. In the first step, we conduct a high-powered, extended replication of Wigboldus et al. (2003): Using the probe recognition paradigm, we present participants trait-implicating behavioral sentences that are either congruent or incongruent with regard to a salient category label of the actor. With this replication, we address methodological limitations of past research. On the one hand, previous research worked with very small stimulus sets – which threatens replicability and generalizability. For our research we have created and extensively pretested a much larger stimulus set. On the other hand, we analyze additional baseline conditions that have not been included in previous studies and allows us to draw first conclusions regarding the underlying mechanisms when processing stereotype-(in)consistent behaviors. We will discuss the results of this first study in relation to aforementioned process assumptions. Furthermore, we aim at discussing the planned research project, how upcoming studies are addressing those process assumptions in detail and how the present research may contribute to our understanding of stereotypes' influence in impression formation from behavior.

Keywords: Stereotypes, Spontaneous Trait Inferences, Person Perception, Replication

**10:00**

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## Spontaneous State Inferences from Behavior

Felix Kruse and Juliane Degner

Universität Hamburg – Germany

People are social animals. In order to successfully navigate through our social environment, we routinely form impressions of others. One way to do so is observing and interpreting others' behavior. Research on Spontaneous Trait Inferences (STIs) has revealed that people frequently use behavioral information to infer dispositional information (i.e., traits) about actors. Dispositional inferences have since then been central and ubiquitous in social psychological theorizing about person perception – at times even coined

fundamental attribution error (Gawronski, 2004). While previous research has provided substantial evidence that trait inferences can and do occur, it has neither demonstrated that traits are the only or even the dominant category of inference, nor has it investigated the occurrence of other spontaneous person inferences. To bridge this theoretical and empirical gap, the current research investigated the occurrence of spontaneous state inferences. Given that psychological states can offer alternative attributions of observed behaviors, and given that states and traits are most often expressed with person-describing adjectives (e.g., intimidated vs. shy), we expected to observe evidence of spontaneous state and trait inferences from behavior. In a series of four pre-registered studies, we employed behavioral statements that potentially allowed for either a trait- and a state-inference (Studies 1 and 2) or both inferences (Studies 3 and 4). We employed two classical experimental paradigms repeatedly used in STI research, a false recognition task in Studies 1-3 and a probe recognition paradigm in Study 4. We collected data online and in the lab.

Results document significant effects of both, trait and state inferences with moderate effect sizes ( $\eta^2_p = .048 - .062$ ), with effect sizes being numerically larger for state than for trait inferences. We thus replicated the established trait-inference effect and, more importantly, provided first empirical evidence for the occurrence of spontaneous state inferences. Our findings potentially have strong implications for further theory building regarding the underlying mechanisms and processes of first impression formation in person perception. The current theories do not account for spontaneous inferences of psychological states. Our findings can contribute towards expanding these theories to paint a more complete picture of the psychological processes involved in perceiving others' behavior.

References Gawronski, B. (2004). Theory-based bias correction in dispositional inference: The fundamental attribution error is dead, long live the correspondence bias. *European Review of Social Psychology*, 15(1), 183-217.

Keywords: Impression Formation, Spontaneous Inferences, Social Inferences, Social Cognition, Automaticity

## Room Sauvignon - Session 27: Information Sampling

9:00

### Information Truncation in Sampling as Cost Consideration

Linda McCaughey, Johannes Prager, and Klaus Fiedler

Heidelberg University – Germany

Information search is an essential step in any decision process and deservedly represents a popular research topic. At what cost this information is acquired, however, is hardly ever taken into account in the current literature. The assumption that information is 'free' is not accurate, since information always comes at a cost, at the least the opportunity cost of not being able to spend the time otherwise. Since it cannot be excluded, all forms of information cost need to be taken into consideration, in which case the decision when to truncate information sampling becomes a consideration of information cost versus benefits. One way of integrating information cost into a sampling-based decision paradigm results in a speed-accuracy trade-off. When the cost of a larger sample consists in the opportunity cost of foregoing later possibilities to make additional decisions (and gain additional money from them), this translates into a trade-off between making fewer decisions based on larger samples and more information (accuracy), on the one hand, and making more decisions based on smaller samples (speed) on the other hand. Another way of integrating information cost more directly is by charging participants for every piece of information that they acquire to increase their sample. They then have to trade off information cost against its benefits very directly. Results from multiple experiments using both operationalisations of information cost show that participants are not generally insensitive to information cost considerations. They are sensitive to some parameter changes that influence the normative solution or strategy, like changes in payoffs. Overall however, participants 'oversample' information to a very large degree: They substantially underestimate the cost of information compared to its worth. To what extent information cost considerations are inadequate and how they could be improved or assisted is an important question for the field of decision making, which would benefit from a revived interest in information cost as one of the crucial aspects in information search.

Keywords: speed, accuracy trade, off, information search, information cost, sampling

9:30

## Vicissitudes of truncated information sampling

Klaus Fiedler<sup>1</sup>, Johannes Prager, and Linda Mccaughey<sup>1</sup>

<sup>1</sup>Heidelberg University – Germany

Although a growing literature testifies to the scientific value and fertility of so-called sampling approaches, prior research has largely neglected systematic sampling truncation effects – the focus of the present paper. How does the sensitivity of an information sample to dominant trends in the universe depend on sample size  $n$ ? Empirical evidence, simulation studies, and theoretical analyses demonstrate that the answer depends on how samples are truncated. If truncation is determined externally, treating  $n$  as an independent variable, sensitivity increases with increasing  $n$ , in line with Bernoulli's law of large numbers. If, however, truncation is self-determined, based on the feeling that sufficient information has been gathered, then sensitivity decreases with increasing  $n$ . This is because  $n$  (dependent variable) remains small exactly when initial observations happen to provide clear-cut evidence;  $n$  becomes large only when initial evidence is weak.

This strong reversal went unnoticed in prior research. Moreover, it is hardly noticed by decision makers themselves. Consumers hardly remember whether their information search was self-determined or stopped by external constraints; protocols of democratic committee meetings rarely mention how discussions were truncated; even scientists are hardly aware of the implications of making sample size dependent on the power of growing samples.

The truncation rule applies to diverse paradigms, such as impression judgments based on single samples of traits, consumer choices between products evaluated in pairs of samples, or multiple samples of experiences with conditional stimuli in an evaluative conditioning framework. However, the present paper is confined to presenting empirical findings from three paradigms: Binary products choices based on samples of positive and negative product evaluations (Fiedler, Renn & Kareev, 2010), persons impression judgments based on trait samples of variable size (Prager, Krueger & Fiedler, 2018), and evaluation of student performance in a semi-naturalistic virtual-classroom paradigm (Fiedler, Harris, Prager & Hess, 2019).

In this paradigm, participants play the role of a teacher whose task is to evaluate the performance of students in a school class represented on the computer screen. On every trial, participants first select a knowledge question from a pull-down menu, attend to what students raise their hand, select (click on) one student to provide a response, and register the correctness of that student's response (provided audio-visually as a film clip). At the end of the lesson on a specific subject matter, participants rate all students' ability (% correct responses) and motivation (% raising hand). Students' true ability and motivation parameters are controlled experimentally.

A number of truncation implications can be tested empirically. As long as the size of different students' response samples is determined externally (by the motivation parameter or hand-raising rate), students of high versus low ability are more effectively discriminated as  $n$  increases. However, to the extent that truncation of student samples can be determined by the participants themselves, performance ratings are more pronounced given small than large  $n$ . Under self-truncation conditions, participants are not only ready to make do with small  $n$  but their small-sample judgments are actually likely to be accurate.

Keywords: self, truncation, law of large numbers, consumer choice, impression judgments, student evaluation

10:00

## A Sampling Approach to Evaluative Conditioning

Mandy Hütter and Max Ihmels

Eberhard Karls Universität Tübingen

In an evaluative conditioning (EC) procedure, a conditioned stimuli (CS) are paired with positive or negative unconditioned stimuli (US) and consequently acquire US valence. We introduced a sampling perspective into the EC paradigm by giving participants agency over which CSs they want to sample (i.e., for what CSs they want to see conditioning trials). Half of the CSs were paired positively, while the other half was paired negatively. To distinguish between the effects of sampled information and sampling decisions per se, we also

introduced a yoked condition, in which participants saw the same information produced by the sampling condition, but did not get to make any decisions. In three experiments, we found that a preference for sampling positively paired CSs over negatively paired CSs developed over time. We replicated standard EC effects and found that a higher number of pairings leads to more positive evaluative shifts, but more so in the sampling than in the yoked condition. This finding shows that EC depends on the learner's willingness to attend to certain CSs. The results of this set of studies also suggest that agency increases the readiness to process the presented CS-US pairs. This reasoning is supported by memory data that indicate better memory for the number of pairings and paired valence in the sampling condition compared to the yoked condition. While the present work takes a first step towards an ecological approach to EC by introducing selective feedback alternatives and active sampling, this paradigm opens up many interesting avenues for future research.

### Room Cabernet - Session 28: Intergroup Processes

**11:00**

#### "You Will Not Have My Hate. Or Will You?" When Terror in Paris Spreads Implicit Anti-Muslim Attitudes Around the World

Manon Arnoult, Armand Chatard, and Leila Selimbegovic

Centre de Recherches sur la Cognition et l'Apprentissage – UMR7295 – Université de Poitiers, Université de Tours – France

Context: France is, according to an international study published in June 2017 (Vidino, Marone & Entenmann, 2017), the country the most affected by the Islamist attacks in Europe and North America since the "caliphate" proclamation of the Islamist State on June 29, 2014. Four attacks have been the object of extensive and worldwide media coverage and have particularly marked the spirits: the Charlie Hebdo satirical journal attack, the Hypercacher kosher supermarket siege, January 7th to 9th, 2015, the Bataclan theatre attack, November 13th, 2015, and truck attack in Nice, July 14th, 2016. A number of studies focused on the influence of these terrorist attacks on prejudice against Muslims, suggesting that the occurrence of the attacks does not increase prejudice. However, all of them share an important methodological limitation: attitude measurement was carried out with self-reported questionnaires. To the best of our knowledge, no study has relied on indirect measures of prejudice to investigate this research question. Building on the basic idea of a dissociation between explicit and implicit components of prejudice (Devine, 1989), we predicted that the terrorist attacks might cause two different reactions (automatic and controlled). The first one is an immediate, involuntary, and momentary increase in implicit prejudice (an impulsive aggressive reaction). However, this initial reaction is followed by a controlled effort to respond without prejudice, restraining its direct expression (Crandall & Eshleman, 2003). Method: These hypotheses were tested with international archival data (from a sample that combined francophones and anglophones). We have retrieved and analysed three relevant indicators over the period of time extending from January 2014 to January 2017. First, we analysed both Implicit Association Test (IAT, Arab version) and explicit prejudice data from Project Implicit. Second, we examined the rate of Google search terms related to negative attitudes and feelings towards Muslims and Islam. The measure is private and anonymous, and therefore implicit. Results: As predicted, results show that the occurrence of terrorist attack (a time-dependent binary variable) is significantly positively correlated to implicit prejudice towards Arab people (measured by IAT) and to the rate of Google search terms related to: (1) negative thoughts about Islam and Muslims (e.g., "I hate Muslims") and (2) the search term "fear of terrorism". In contrast, explicit prejudice was not correlated with the "terrorist attack" time-dependent variable. Discussion: To conclude, in line with previous findings, the explicit measure of prejudice remained unrelated to the occurrence of terrorist attacks. However, results show that implicit prejudice towards Arab people (IAT), and Google search terms related to hateful and fearful thoughts about Islam and Muslims increased in the two weeks that followed the attacks. This is consistent with the two stages theory of prejudice and dual processes theories. It seems necessary to take into account the dissociation between implicit processes and explicit processes to understand attitudes and responses to terrorism.

Keywords: terrorist attack, anti, Muslims attitude, implicit/explicit

**11:30****Learning about "us": Group membership biases learning about social groups, but not retrieval**Stefanie Hechler<sup>1</sup>, David Urschler, and Thomas Kessler<sup>1</sup>Friedrich Schiller University Jena [Jena, Germany] – Germany

When learning about two categories, people accentuate the distinct features of these categories. Categories are even differentiated, if there is no factual difference between them (e.g., illusory correlations). However, when the self is a member of one of these category, an additional bias affects the category differentiation. Typically, group members perceive their own group as more positive than an outgroup. Such ingroup biases evolve despite equal distribution of the information about the groups (Howard & Rothbart, 1980). In the current study (N = 116), we examined whether an ingroup bias emerges during learning or retrieval of group information. Moreover, we applied multinomial modelling to distinguish between memory and guessing behaviour. Participants learned positive and negative information about two groups. In a subsequent test phase, the same information and new distractors were re-presented. Participants indicated whether they have seen the information before, and if yes, which group it belonged to. Both groups were presented with 50% positive information and were equal in size. There were three between-participant conditions: 1) Participants were not categorized and learned about two distant groups (group A and group B). 2) They learned about ingroup and outgroup. 3) They learned about two distant groups, and were categorized into ingroup and outgroup after learning but before retrieval. The categorization procedure followed a minimal group paradigm. Results reveal a guessing bias for the non-categorized participants, but not in the other conditions. In contrast, participants who were categorized before learning, remembered positive information of their ingroup better than negative information. There was no biased memory, when participants were not categorized or categorized after learning about the groups. Nevertheless, participants who were categorized before or after learning, preferred their ingroup over the outgroup. This indicates that biased group impressions emerge during learning about two groups, and manifest in memory biases.

Keywords: ingroup bias, multinomial modeling, minimal groups, category learning

**12:00****Dissociating Category Emphasis from Other Confounds in Multiculturalism-Colorblindness Research**Adam Hahn<sup>1</sup>, Alexandra Goedderz<sup>1</sup>, Sarah Banchfeský<sup>2</sup>, Bernadette Park<sup>2</sup>, and Charles (chick) Judd<sup>2</sup><sup>1</sup>University of Cologne – Germany ; <sup>2</sup>University of Colorado Boulder [Boulder] – United States

On a societal level, discussions about the consequences of stereotyping can be seen in debates contrasting multiculturalism (MC) – a strategy that advocates emphasizing social category distinctions and leads to more stereotyping –, from a colorblind (CB) strategy aimed at looking beyond categories and stereotypes. Contrary to established wisdom in other fields of social psychology, MC-CB research has advocated MC as a route towards more positive intergroup relations. However, the materials used often confound category emphasis with other variables in reaching this conclusion. Using large student and MTurk samples, we find, first, that both emphasizing and downplaying category distinctions can be coupled with positive or negative intentions towards outgroups, resulting in four, rather than two, distinct ideologies. Second, priming materials used to invoke a CB or MC mindset are often confounded with regulatory focus, such that MC is framed as promoting harmony, but CB as preventing conflict, and some of the results in the literature can be attributed to this confound. These findings suggest that when and whether category emphasis has positive or negative consequences on intergroup relations likely depends on other moderating conditions.

Keywords: intergroup relations, stereotyping, prejudice, intergroup ideology

**Room Malbec - Session 29: Interpersonal Relations****11:00****Interpersonal attraction as a function of shared preferences versus shared aversions**

Tabea Zorn and Hans Alves

University of Cologne – Germany

Sharing attitudes leads to attraction. Dating apps use this phenomenon by matching dating partners based on attitude or interest similarity. However, there is no systematic research whether it matters if the attitudes are positive or negative; that is, whether the match is based on shared preferences or shared aversions. Bosson and colleagues (Bosson et al., 2006; Weaver & Bosson, 2011) argued that sharing negative attitudes about another person promotes closeness more effectively than sharing positive attitudes. However, classic research in social psychology suggests the opposite relation. For example, Folkes and Sears (1977) argued for the power of positivity, which is in line with research on impression formation highlighting the importance of making a good impression at first acquaintances (e.g., Rowatt, Cunningham, & Druen, 1998). Plus, to share preferences has a stronger impact on a behavioral level as it creates a stronger common ground in regard to further activities. The present research tests these alternative viewpoints against each other. A first study (N = 100) used a within-participants design with eight different interest domains typically relevant in online dating. The study instructed participants to name two preferences and two aversions for each of the eight interest domains. Then the study asked them to rate for each listed item how much they would like a person sharing this preference or aversion. The results showed significantly higher interpersonal attraction ratings for others sharing the own preferences compared to the own aversions. Two further studies (N = 102 each) examined whether the observed higher potency of preferences for interpersonal attraction is also true for unshared attitudes. Extending the method used in Study 1, I added scenarios in which participants imagined meeting others who do not share their preferences and aversions. They should either rate the interpersonal attraction for someone who also likes what they like, also dislikes what they dislike, likes what they dislike or dislikes what they like. The results replicated the greater influence of preferences compared to aversions on attraction. Exploratory mediation analyses suggest that the effect is explained by how revealing and strong attitudes are, as preferences appeared to be both stronger and more revealing about who a person really is. Thus, for the realm of interpersonal attraction, preferences are more influential than aversions. These findings are especially interesting against the background of past literature suggesting that negative information has a stronger impact on social evaluations (e.g., Kanouse & Hanson, 1972) and the idea that "bad is stronger than good" (Baumeister et al., 2001).

Keywords: attraction, attitudes, similarity, valence

**11:30****The effects of redundant traits on potential dating partner evaluations**

Fabia Hoegden, Christian Unkelbach, Hans Alves, and Anne Gast

University of Cologne – Germany

Negative information is more diverse than positive information but positive information is more frequent than negative information (Alves, Koch, & Unkelbach, 2017, 2018). That means that potential dating partners typically have more positive than negative traits but they are more alike in their positive traits because there are less ways to be positive than there are to be negative. In turn, their fewer negative traits are more likely to be unique because there are many different ways to be negative. Additionally, we learn about potential dating partners sequentially, for example in a dating app that presents them one after the other. The model predicts an evaluative disadvantage for dating partners that are encountered later in the sequence: They will primarily be judged on the basis of their unique traits ("differentiation principle", Alves, Koch, Unkelbach 2018) which are more likely to be negative.

We aim to test this prediction by asking participants to form an impression of four potential dating partners, one after the other. In one condition, each target will have four positive traits and two negative ones. This condition emulates the distribution of positive and negative information in the world ("standard condition"). In the other

condition, they will have four negative and two positive traits ("reversed condition"). Importantly, in the standard condition, the frequent positive traits will become increasingly redundant over the four dating partners so that for the last target, all positive traits will have been shared by previous targets and only the two negative attributes are unique for this person. In the reversed condition, in contrast, the negative traits will become redundant across targets and the last target will have only shared negatives but two unique traits.

We predict that participants will evaluate dating partners in the standard condition more negatively the later they encounter them in the sequence. In the reversed condition, in contrast, participants should evaluate the targets in the sequence increasingly positive. With this line of research, we hope to show the role of the distribution of positive and negative information in the environment ("evaluative ecology") in an important domain. We hope to shed some light on why people are less satisfied when they have many dating partners to choose from (e.g., Wu & Chiou, 2009).

Keywords: romantic dating partner, ecology, comparison

**12:00**

## Leveraging memory to communicate value

Andrei Iulian Pinteá and Devin Ray

University of Aberdeen – United Kingdom

*Background.* Communicating value (or lack of value) to a relationship partner is impactful in both professional and personal relationships. Recently, memory for a past interaction has been recognised as an influential signal of value. It is unclear, however, whether people use memory to signal value deliberately or effectively. Two studies investigated (a) whether providing evidence of memory is an effective strategy for communicating value, (b) whether people deliberately use evidence of memory to communicate value, (c) whether evidence of memory communicates value independently of other strategies, and (d) whether instruction to leverage evidence of memory can create more effective communications of value.

*Methods.* We examined these questions in the context of a simulated job interview (Experiment 1) and a simulated interpersonal interaction (Experiment 2). In Experiment 1, participants (N=82) read a transcript of a candidate reviewing her qualifications for an office assistant position, were told the candidate had ultimately been unsuccessful, and were asked to provide feedback to the candidate. In Experiment 2 (N=87), participants exchanged personal information with a fictitious interaction partner and, after the interaction was over, were asked to provide a final response to the interaction partner. In both experiments, participants received various instructions before providing these communications to the candidate or partner. They were asked to either communicate (a) that the candidate or partner was valued and appreciated, (b) that they remember specific details about the candidate or partner, (c) that the candidate or partner was valued by clearly showing that they remember specific details about the candidate or partner, (d) or received no additional instructions. Participants' communications were then coded for evidence of memory and shown to new participants (N=68 in both Experiments 1 and 2) who provided objective third-party evaluations of the effectiveness of the original participants' communications.

*Results.* Across experiments, results converged to indicate that using evidence of memory to deliberately communicate value is an effective strategy, that people underutilise that strategy without prompting, that memory operates independently from liking-based strategies, and that explicit instruction to leverage evidence of memory can enhance the effectiveness of communications of value.

*Conclusions.* Providing evidence of memory appears to be an effective strategy for communicating value. Despite its apparent efficacy, people do not necessarily use evidence of memory to support their communications of value without external prompting. Critically, explicit prompts to communicate value using memory enhance the effectiveness of communication. In addition, evidence of memory and cues to liking appear to work as independent pathways in the communication of value. These results thus provide a demonstration in principle of a simple yet effective intervention to improve people's communication of value. Given the central importance of mutual value to both personal relationships and professional relationships, enabling people to better communicate value has the potential to enhance the whole range of cooperative human enterprise.

Keywords: Memory, Value, Interpersonal communication, Interpersonal interaction, Interpersonal relationships

**Room Merlot - Session 30: Dimensions of Judgement****11:00****The ABC of society: Similarity in agency and beliefs increases cooperation across groups**Alex Koch<sup>1</sup>, Angela Dorrough<sup>2</sup>, Andreas Glöckner<sup>2</sup>, and Roland Imhoff<sup>3</sup><sup>1</sup>The University of Chicago Booth School of Business – United States ; <sup>2</sup>Social Cognition Center Cologne – Germany ; <sup>3</sup>Social and Legal Psychology, University of Mainz – Germany

Cooperation across groups is essential for society to develop and flourish. Similarity explains variance in cooperation, but the similarity dimensions that explain which groups cooperate more with which other groups remain unclear. When not constrained in any way raters map the similarity of society-representative groups along three dimensions: agency / socioeconomic success (A), conservative-progressive beliefs (B), and communion (C). Groups' communion increases with group-rater similarity in agency and beliefs, and targets' communion increases cooperation across societies. Thus, we predicted that group-rater similarity in agency and beliefs would increase cooperation across groups.

In the role of self-identified member of one of 30 groups (gays, Muslims, Blacks, upper class, women etc.), 583 raters played an incentivized one-shot continuous prisoner's dilemma game with one self-identified member of each of these 30 groups. The order of these 30 games was random, their procedure the same. Raters first learned of their coplayer's group, were reminded that they know nothing of each other except group membership, were endowed with \$1 each, indicated how much between \$0 and \$1 in steps of \$0.1 they expected their coplayer to transfer to them (transfer was doubled), and then transferred between \$0 and \$1 in steps of \$0.1 to their coplayer. Raters did not learn of their coplayer's transfer at this point. There was no mention of agency, beliefs, and communion before and during the 30 games. That is, we did not prompt raters to use these dimensions to gauge their expectations and transfers. Finally, raters used 0-10 slider scales to score the 30 groups in random order on agency, beliefs, and communion in random order, used 0-10 slider scales to score the self twice on these three dimensions in random order, and then provided demographic information. A few days later we randomly selected one game and bonused them what they had not transferred in this game plus double of what their coplayer had transferred to them in the game (between \$0 and \$3).

Whether raters identified with the groups represented by their coplayers (ingroup favoritism) explained expectation from, and transfer to, coplayer groups. Consistent with the ABC model of spontaneous stereotypes and as predicted, expectation and transfer increased with group-rater similarity in agency and beliefs. Expectation and transfer increased with group-rater similarity in agency more strongly for raters moderate compared to low and high in agency, and communion did not mediate this nuanced effect. Expectation and transfer increased with group rater similarity in beliefs more strongly for raters conservative and progressive compared to moderate in beliefs, and communion statistically mediated this nuanced effect. These findings extend the range of influence of agency and beliefs stereotypes about groups from communion stereotypes about groups and behavior-relevant emotions felt towards groups (admiration, contempt etc.) to monetary cooperation behavior towards groups as operationalized in the prisoner's dilemma game.

Keywords: Stereotypes, groups, agency, beliefs, communion, similarity, cooperation

**11:30****Social Perception in the Dictator Game**

Janna Ruessmann and Christian Unkelbach

University of Cologne – Germany

The dictator game (DG) is played between two players, dictator and recipient. The dictator is endowed with a fixed amount of money and asked to send a proportion to the recipient (from zero to all). Scientists implemented

the DG (Forsythe et al., 1994) in more than a hundred experiments, testing more than 600 different treatments (for a meta-analysis, see Engel, 2011). Here, we explore how observers perceive dictators and what kind of inferences they draw about dictators' personality traits. We hypothesized that observers' social perception of dictators varies as a function of fairness level. In a preregistered ([osf.io/47m8y/](https://osf.io/47m8y/)) first experiment (N = 200), we instructed individuals to observe different types of dictators. More specifically, each dictator was initially endowed with \$10 and made either a "very fair" (\$5,00 vs. \$4,90 vs. \$4,80), a "very unfair" (\$0,20 vs. \$0,10 vs. \$0,00), or a "moderately fair" (\$2,60 vs. \$2,50 vs. \$2,40) offer. Subsequently, participants had to rate the dictators on the A (agency/ socio-economic success), B (conservative-progressive beliefs), and C (communion/warmth) dimensions of the ABC model of stereotype content (Koch et al., 2016), on an intelligence scale, and on a social desirability scale. We manipulated dictator's fairness level within-participants and the fairness level order between-participants. As expected, fairness level affected social perception. Participants rated unfair dictators as more agentic and conservative, but less trustworthy, less intelligent, and lower on social desirability than fair and moderately fair dictators. In Experiment 2 (N = 100), we tested whether these inferences are bi-directional; that is, we showed participants dictators' personality traits on the A, B, or C dimension, or on an intelligence scale, and asked them to predict the dictator's behavior (i.e., the money amount sent). Participants predicted that more conservative, or less trustworthy, or less intelligent dictators would send less money compared to more liberal, or more trustworthy, or more intelligent dictators. There was no difference in predicted amount of money sent as a function of the A dimension. Next, we will investigate whether the link between fairness level in the DG and social perception could be of prognostic value in vocational settings (e.g., assessment centers). In the next 4 months, we will collect data on whether participants use a job candidate's behavior in the DG as a strategic mean to assess her qualification for a certain job; and whether participants instructed to imagine applying for a specific job, and playing the DG as part of the procedure, would align their level of fairness in such a way that it matches the personality traits profile (A, B, C, and IQ) of an ideal-typical candidate for the respective job. This research provides a new perspective on investigating the DG by shifting the question from why dictators act in certain ways to how these actions may influence social perception, and how the DG could be implemented as an indirect measure of social perception.

Keywords: social perception, ABC model of stereotype content, dictator game

**12:00**

## Facial representation of the compensation effect

Mathias Schmitz<sup>1</sup>, Antoine Vanbeneden<sup>1</sup>, and Vincent Yzerbyt<sup>1,2</sup>

<sup>1</sup>IPSY - Université de Louvain-la-Neuve – Belgium ; <sup>2</sup>Université Catholique de Louvain – Belgium

Previous research has shown that stereotypes can distort visual representation of groups in a top-down fashion. The present research aimed to test if the compensation effect, which characterizes the negative relationship between the two fundamental dimensions of social perception (i.e., warmth and competence) when judging two social targets, would bias the visual representations of these targets in a compensatory way. We measured participants' spontaneous facial representations of target groups by means of a reverse correlation procedure (RC), an unconstrained data-driven technique that makes no a priori assumption about the nature of the visual representations. In Experiment 1 and 2, participants learned about two fictitious groups that differed on competence (Exp. 1) or warmth (Exp. 2) while being equal on the other dimension (i.e., warmth in Exp. 1, competence in Exp. 2). Participants then underwent a RC task to capture their representation of the groups. Next, independent judges evaluated the averaged faces of the two novel groups. Ratings from Experiment 1 revealed the presence of a compensation effect, although the difference on competence proved marginal. Faces from Experiment 2 differed on warmth, but they did not so on competence. Because past research suggests that dominance traits may offer more facial cues than competence traits, we hypothesized that participants may have encoded competence traits as dominance traits at a facial level. In Experiment 3, a new sample of independent judges evaluated the faces produced in the two previous experiments on dominance and trustworthiness (which has been shown to be closely related to warmth in the domain of face perception). Ratings on these two dimensions confirmed the presence of a marked compensation pattern for both pairs of faces. The present research opens new avenues by showing that compensation not only manifests itself on abstract ratings, but that it also biases the visual representations of social targets.

Keywords: compensation, warmth, competence, fictitious groups, reverse correlation, visual representation

## Room *Sauvignon* - Session 31: Information Sampling

**11:00**

### Biased preferences through exploitation: The effects of skewed outcome distributions on information sampling

Chris Harris<sup>1</sup>, Klaus Fiedler<sup>2</sup>, Hans Marien<sup>1</sup>, and Ruud Custers<sup>1</sup>

<sup>1</sup>Utrecht University – Netherlands ; <sup>2</sup>Heidelberg University – Germany

When choosing one behavioral option leads to more rewarding outcomes than the alternative, this should result in skewed sampling (i.e., exploitation) of the first, compared to the second option. The literature on pseudocontingencies has demonstrated that when people are presented with such skewed samples (i.e., more samples of one option than another), this can lead them to perceive contingencies between options and their properties (e.g., reward value of the outcome), even when there are none. In the current paper, we test the prediction that initial biases in people's choices between two on average equally rewarding options, can create pseudocontingencies that affect further sampling and preferences. Specifically, we argue that in environments where two options predominantly - but equally frequent - yield positive outcomes, skewed sampling should uphold any initial bias, because it retains the perceived contingency. In environments where both options yield predominantly negative outcomes initial biases are expected to be eradicated as sampling would attenuate perceived skews. In two experiments, initial evidence in a guided-sampling phase was set up for participants to perceive an actual contingency (Experiment 1) or infer a pseudocontingency (Experiment 2, 3) that made one option look more rewarding. In a subsequent free-sampling phase this led to a sustained bias toward this option when the environment contained more positive but not when it contained more negative outcomes. We argue that biased sampling in reward rich-environments could be responsible for false beliefs about the outcomes of behavioral options, such as in health contexts.

Keywords: exploration exploitation tradeoff, action, outcome learning, pseudocontingencies

**11:30**

### Toss and turn or toss and stop? A coin flip reduces the need for information in decision-making

Maria Douneva, Mariela Jaffé, and Rainer Greifeneder

University of Basel – Switzerland

When deciding between two options, settling can be difficult if one option is superior on one dimension but inferior on another. To arrive at a conclusion, people may continuously gather more and more information, thereby running the risk of prolonging or blocking the decision-making process. Here, we suggest that random decision aids may prove fruitful by reducing the need for further information. Research suggests that people prefer to have more rather than less information in decision-making settings, even when that information has no effect on the decision, or when the amount of information lowers decision performance. To gather further information, people rely on techniques such as making lists or asking for advice. However, an abundance of information can result in not making a decision at all, a situation colloquially termed analysis paralysis.

One way of ending analysis paralysis can be to let chance decide, for example by flipping a coin. A coin flip does not provide any actual information about the decision options, but it proposes a clear solution. In contrast to most previous research, we do not understand the coin as a decider that effectively determines the decision, but as an aid supporting autonomous decision-making. In this work, we focus on information need before settling for an option. In three online studies (total N = 692, German and US participants), we test the hypothesis that a coin flip reduces information need before making a final decision.

The overall procedure is the same in all studies. Step 1: We present participants with decision information. Step 2: We ask participants to make a preliminary decision between two options. Step 3: We inform participants that they can receive more information and ask them whether/how much information they need before making their

final decision. Crucially, we introduce a coin flip for some participants before Step 3, which suggests one of the two options but is explicitly described as non-determinant (i.e., people can make their final decision independently of the coin's suggestion, and we indeed do not find any anchoring effects throughout our studies).

In Study 1, participants decided whether or not to prolong the contract of a store manager based on information about his past performance. Consistent with our hypothesis, seeing a coin flip reduced the need for further information: Coin participants were three times less likely to request further information than control participants.

In Study 2, we presented participants with pictures of two non-branded backpacks, along with a short description about the backpacks' properties, and asked them to decide which one of the two backpacks costs more. Customer reviews served as additional information. As hypothesized, coin participants indicated a lower information need than control participants. In Study 3, we asked participants to decide which one of two medical charities (randomly selected from six charities participants did not know beforehand) should receive a monetary donation. Donation decisions matter to people, even when the money involved is not their own. Again, coin participants had a significantly lower information need than control participants.

Keywords: decision, making, information need, random device, coin flip

## Room Cabernet - Session 32: Intergroup Processes

14:45

### Individuating outgroup faces: Investigating the cognitive processes underlying individuation versus categorization

Marleen Stelter and Juliane Degner

Universität Hamburg – Germany

Social psychological theories widely agree that people use different processing styles when perceiving ingroup faces as compared to outgroup faces. Specifically, ingroup faces are processed on an individual level (i.e., by focusing on characteristics that make a face unique), whereas outgroup faces are processed on a categorical level (i.e., by focusing on social category information, such as skin color). Individuation vs. categorization may have important consequences: For example, category-based processing may lead to reduced recognition of outgroup faces, namely the other-race effect (ORE). However, it is still poorly understood how individuation vs. categorization affect specific cognitive processing of ingroup and outgroup faces. The present studies investigated how individuation may alter attention, encoding and recognition of ingroup and outgroup faces. One way of investigating individuation is by instructing participants to individuate outgroup faces (e.g. by instructing participants to attend to the individuating features of outgroup faces). We conducted three studies examining the influence of individuation instructions on visual attention (Study 1), working memory (Study 2a and b), and long-term memory recognition (Study 1, 2a and 2b) for ingroup and outgroup faces.

In Study 1 (n = 110), we measured eye movements as an indicator of visual attention while White German participants completed an old/new recognition task with Middle Eastern outgroup faces and White ingroup faces. We investigated if individuation instructions reduce the ORE for Middle Eastern vs. White faces compared to a control group with no individuation instructions. Furthermore, we investigated if individuation instructions influence eye movements to Middle Eastern outgroup faces compared to White ingroup faces. Specifically, we analyzed pupil dilations and eye-movement activity level as indices of cognitive effort. Furthermore, we analyzed attention to the eyes during study and recognition of faces, suggesting that individuation may increase attention to the eyes.

In Studies 2a (n = 108) and 2b (n = 117), we examined the influence of individuation instructions on the other-race effect in working memory and recognition memory, with half of the sample being instructed to individuate outgroup faces. Participants then completed working memory tasks with Middle Eastern outgroup faces and White ingroup faces: an N-back task (Study 2a) and a change detection task (Study 2b). Subsequently, participants completed a surprise recognition test with the same faces from the working memory task. In all studies, we found that long-term recognition memory was better for ingroup faces compared to outgroup faces, thus, replicating the classic ORE. The magnitude of this effect was only partly altered by individuation

instructions. Effects of individuation instructions on attention and working memory were mixed. Individuation improved working memory performance for outgroup faces only in the N-back task, but not in the change detection task. Furthermore, pupil dilations were overall larger for outgroup faces compared to ingroup faces, implying greater cognitive effort for outgroup faces. However, individuation instructions did not affect eye movements to outgroup faces. We address these mixed findings by relating them to the theories of the ORE. Finally, we discuss potential avenues for future research.

Keywords: categorization, individuation, face perception, other race effect, eye tracking, working memory

## 15:15

Does it matter who the perpetrator is? The effect of a perpetrator's ethnicity, negative attitudes against Muslims, and rape myth acceptance on blame attribution in the context of a rape case

Zahra Khosrowtaj<sup>1</sup>, Philipp Suessenbach, and Sarah Teige-Mocigemba

<sup>1</sup>University of Marburg – Germany

The cultural and religious background of refugees, migrants, and especially Muslims and their behavior towards women have been discussed frequently in German politics and media. Social categorization of offenders may affect people's reactions to a perpetrated crime. The effect of group membership is most interesting as part of the evaluation of crime cases. Social identity theory leads us to the expectation that people would react more negatively to outgroup perpetrators compared to ingroup perpetrators. Within the framework of rape cases, rape myth acceptance (RMA, Bohner, 2009) encompasses beliefs about rape that serve to justify male sexual aggression. RMA is associated with increased victim blaming and an exoneration of the perpetrator. Studies have shown a relationship between RMA and other suppressive beliefs like racism. Against the background of recent incidents of sexual assaults and rape in Germany perpetrated by refugees, the aim of this study was to investigate possible differences in blame attribution to a foreign vs. German perpetrator in the context of a rape scenario. As part of an online study, we examined the effect of a defendant's ethnicity, negative attitudes against Muslims and Islam (NAMI) and RMA on victim and perpetrator blaming. The name of the perpetrator was manipulated in a between-subjects- design. Subjects (N = 987) were confronted with an ambiguous rape vignette. Judgments regarding the perpetrator and victim were assessed with nine items based on previous research (Süssenbach, Albrecht, & Bohner, 2016, e.g., "How much is [perpetrator's/victim's name] to be held responsible for what has occurred?"). As expected, RMA predicted victim blaming independent of the ethnical background of the perpetrator. With increasing RMA, subjects blamed the victim and exonerated the perpetrator. Contrary to our expectation, with higher NAMI, the outgroup perpetrator received more lenient judgments compared to the German perpetrator. This interaction was not accounted for by participants' motivation to control prejudice (no moderated mediation). This first study lacked a control condition, so that it was not possible to differentiate between a leniency effect and a black sheep effect. A second preregistered experiment is supposed to comprise a control condition. By this means, it will be possible to distinguish between a leniency effect and a black sheep effect. In a pilot study (N = 125), we examined the effect of a defendant who is introduced by his initial or personal pronouns, respectively. No differences were observed. Subjects indicated of not having thought of the background of the defendant regardless of him being introduced by his initials or personal pronouns, descriptively more in the latter. Upon this result, the control condition for the planned registered study will use personal pronouns to refer to the perpetrator. For further understanding subject's guilt and responsibility attributions, the preregistered experiment is designed to further measure blame attribution biases using Gudjonsson Blame Attribution Inventory. With a replication of the results of the non-registered study and the investigation of possible differences according to blame attribution determined by group membership, we aim to understand the underlying processes which lead to more lenient judgments towards Migrant perpetrators.

Keywords: rape myth acceptance, negative attitudes towards Muslims and Islam, victim blaming, perpetrator blaming, leniency effect

15:45

## The effect of social group on the evaluation of individual members

Mayan Navon and Yoav Bar-Anan

<sup>1</sup>Ben-Gurion University of the Negev – Israel

This present research investigates the relative influence of group membership on the evaluation of familiar members of social groups. There is ample evidence that people's automatic and deliberate judgment show preference for some groups (the ingroup and dominant groups) over others (the outgroups and non-dominant groups; Greenwald et al., 2009; Kurdi et al., 2018). As for the evaluation of group members, there is evidence that group membership determines deliberate and automatic preference between unknown, novel group members (Ranganath & Nosek, 2008). When some individuating information is provided about previously unknown group members, the effect of the group is attenuated, but it still determines automatic preference (Rubinstein et al., 2018). Yet, research on novel (unknown) group members does not capture the judgment of known individuals, about which many individuating details are known. To test the effect of group membership on the evaluation of well-known individuals, in the present research, we tested automatic and deliberate evaluation of popular Black and White American movie actors. In Study 1 (N = 2000), we selected four very popular Black actors and four moderately popular White actors. For all 16 Black vs. White comparisons, participants self-reported preference for the Black actor over the White actors (range of Cohen's d = 0.12-0.92). Automatic preference measured with the IAT showed significant preference for the White actor in 7 of the contrasts (range of Cohen's d = 0.17-0.60), and no significant preference in 8 of the contrasts, or very slight significant preference for the Black actor in one of the contrasts (Cohen's d = 0.22). To examine the importance of the group membership, we manipulated its salience in Study 2 (N = 800), by showing only the names of the actors (low group salience) or their photos (high group salience). Participants showed automatic preference for the White actor over the Black actor only when the group salience was high (Cohen's d of the difference between the conditions = 0.36), and no preference when it was low. Group salience did not influence deliberate preference: participants reported preference for the Black actor over the White actor, regardless of whether the actors appeared only by name or by photo. Importantly, in both studies, participants reported a preference for White people over Black people. Thus, the results so far indicate that group membership determines the automatic preference between known individuals, even when people report clear preference between these individuals that is opposite of their preference between the groups to which those individuals belong. These findings provide novel evidence for the large influence that group membership has on automatic evaluation. The next studies will test whether our findings replicate with a different measure of automatic evaluation, and with different social groups.

Keywords: Automatic evaluation, Attitudes, Stereotypes

### Room *Malbec* - Session 33: Interpersonal Relations

14:45

## Interpersonal closeness impairs the ability to recall trust decisions

Pinar Ugurlar, Michael Zürn, and Ann-Christin Posten

University of Cologne – Germany

A recent research found that interpersonal closeness brings with a cognitive cost: closeness hinders solving decision problems that include information on the self and on another person (Ugurlar, Sumer, & Posten, 2019). Expanding on these findings, we suggest that the tendency to trust close others more than distant others is at least partially driven by this cognitive cost of closeness. We reason that the cognitive difficulty associated with the self-other confusion among close individuals would hamper the cognitive processing of cost-benefit information and affect decision preferences. Two pre-registered experiments tested the effect of closeness on recall accuracy. In Study 1 (N = 350) interpersonal closeness was a between-subjects factor and in Study 2 (N = 493) it was a within-subjects factor. In both experiments, the participants first completed several rounds of trust games where they allocated resources between themselves and a close (or a distant) person. We, then, asked

them to recall the amounts they had sent during the trust game. We limited recall time and measured recall accuracy as a proxy for cognitive processing efficiency in decision making. Consistent with our prediction, we found that interpersonal closeness impairs memory associated with trust decisions: participants made more recall errors when the resources in the game had been allocated between the self and a close compared to a distant other. Thus, the findings of the two experiments collectively demonstrated that interpersonal closeness impairs the ability to recall trust decisions.

Keywords: interpersonal closeness, memory, decision making, trust

## 15:15

### Do significant others elicit implicit ambivalent evaluations? An attempt at resolving inconsistencies

Thomas Verliefe and Mandy Hütter

Eberhard Karls Universität Tübingen – Germany

Given that ambivalent attitudes have shown manifold cognitive, affective, and behavioral consequences, it is important to study ambivalence, its prevalence and sources. Previous research has indicated that ambivalent attitudes may even be maintained implicitly and used evaluative priming paradigms to investigate this. These paradigms compare response latencies between different combinations of affective prime and target stimuli. Facilitation of responses towards targets that are evaluatively congruent with the prime, as compared to incongruent primes, is a major effect called the affective congruency effect. Zayas and Shoda (2015) claim to have found positive and negative univalent primes, which facilitate responding even on incongruent trials: significant others [Zayas, V., & Shoda, Y. (2015). Love You? Hate You? Maybe It's Both: Evidence That Significant Others Trigger Bivalent- Priming. *Social Psychological and Personality Science*, 6(1), 56–64.]. That is, even though participants reported to feel univalent positive or negative about their significant others, the evaluative priming paradigm indicated significant others facilitating responses towards both positive and negative targets. Based on these results, Zayas and Shoda (2015) reason that significant others implicitly trigger both positive and negative automatic evaluations, a characteristic of ambivalence. But this claim of facilitation is inconsistent with the general affective congruency effect, and with deceleration effects reported for ambivalent primes in recent research.

The original work by Zayas and Shoda (2015) shows several methodological issues, including small sample sizes, a small number of primes per condition, and suboptimal control conditions. The current work conceptually replicates this previous work while alleviating these issues. We investigate whether significant others as primes facilitate responding on both congruent and incongruent trials.

Our first experiment (N = 80; pre-registered) included univalent noun primes, more than one prime per condition, and improved control conditions. We analyzed our data using a multilevel model with prime and target valence as fixed effects, and random intercepts for both participants and target words, with log-transformed latencies as our dependent variable. We used estimated marginal means, based on this model, for pairwise Tukey corrected comparisons.

As in the original work, our participants also reported their significant others as univalent. Yet our evaluative priming paradigm shows no facilitation for these primes in the incongruent condition, neither in comparison to neutral, nor to opposite-valence noun primes. Instead, deceleration was found on incongruent trials, in line with the traditional affective congruency effect. However, this deceleration was only obtained on a subset of relevant conditions, inconsistent with recent research on ambivalent priming. Whereas the results of the present experiment refute the original claims, our research program intends to further investigate the nature of ambivalent deceleration. We consider the current evidence inconclusive regarding whether significant others are implicitly ambivalent. One possibility is that the participant-specific nature of the significant other primes induces the deceleration pattern. To clarify this matter, our second ongoing experiment (N = 80; pre-registered) introduces an additional type of participant-specific primes, namely significant objects. Summarized, the present research carefully revisits an inconsistency in effects and contributes to a growing understanding of ambivalence and implicitness.

Keywords: Ambivalence, Significant Others, Evaluative Priming, Implicitness

15:45

## Studying HRV to predict sexist beliefs and opposition to sexist behaviors in women

Solenne Bonneterre<sup>1</sup>, Oulmann Zerhouni<sup>1</sup>, and Johan Lepage

<sup>1</sup>Laboratoire Parisien de Psychologie Sociale – Université Paris Nanterre : EA4386 – France

Literature shows that women adhere to sexism as a belief in a just world that allow them to justify their place in social hierarchy. We hypothesize that adherence to certain ideological beliefs (i.e., ambivalent sexism) may be explained by heart rate variability (HRV), which is the ability for an organism to be flexible and adaptative, in a heart rate regulation manner, between stress and rest situations. Studies shows that the lower the HRV, the more people tend to perceive their environment as threatening, the more they would rely on strong ideological beliefs that allow for a more predictable environment. We tried to applied this idea to sexism : we posit that the lower the HRV in women, the more they rely on sexist belief in order to justify their places in the social hierarchy. We also explored why women don't oppose to sexism, posing that the lower the HRV and vagal reactivity, the more women feel personal distress and so the less they would be able to oppose or testify. To test this, we used a modified version of Trier Social Stress Test (TSST), in order to measure participants' HRV in rest situation (i.e., prior experiment), stressful situation (i.e., during the TSST) and in recovery situation (i.e., after experiment). During the TSST, the participant go through a job interview in front of a video of a male jury, which causes stress through the social evaluation and by stressful intervention from the jury that are either neutral (e.g, "We think you have not been convincing during the interview") or neutral (e.g., "We think you have not been convincing during the interview, we think a man would have been better"). After the interview, the participant went through a facial emotion recognition task where, in addition to the recognition, she has to indicate how often she's likely to meet this facial expression in her daily life. Our hypothesis is that the lower the HRV, the more participants would tend to feel personal distress and so adopt an avoidance behavioral strategy. Those people would be less likely to recognize facial expression, but they would rate higher the occurrence of negative emotions (i.e., anger and fear) in their daily lives. Finally, participants indicated if they want to meet them in order to talk about their behavior, and if they would go alone or with other participants. We posit that the higher the HRV, the more people would declare intentions to meet the jury (i.e., opposition to sexism) with other participants (i.e., engagement in collective action against sexism). Results shows that HRV did not predict adherence to benevolent or hostile sexism. Same results concerning the link between intention to oppose to the jury and HRV. However, HRV predicted emotion recognition accuracy and their perceived daily occurrence: the higher the HRV, the more participants recognized correctly facial emotions, and the more anger was perceived as frequent for women faces. Results are encouraging, and needs to be explored further in future studies.

Keywords: Sexism, HRV, emotion regulation, opposition to sexism, physiology, social psychology

### Room Merlot - Session 34: Face Processing

14:45

## Communion Lost in The Crowd. Face Perception is Dominated by the Expressions of Agency.

Aleksandra Tolopilo<sup>1,2</sup>, Magdalena Formanowicz<sup>3</sup>, Mirella Walker<sup>4</sup>, and Michal Parzuchowski<sup>2</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Warsaw, Poland – Poland ; <sup>2</sup>Center of Research on Cognition and Behavior, SWPS University of Social Sciences and Humanities, Sopot, Poland – Poland ;

<sup>3</sup>University of Surrey, UK – United Kingdom <sup>4</sup>University of Basel, Switzerland – Switzerland

In many social interactions, people often make inferences about personality traits of self, other individuals and groups. There is ample evidence in the literature that most basic personality traits that people use are agency and communion, that is known as The Big Two in social perception. Agency refers to the pursuit of goals given available opportunities, while communion refers to bonding with others and creating stable social ties. For the improvement, an impressing body of research considers communion the primary dimension in the evaluation of others. People are faster to categorize communal traits in the behavior of other people and express more interest

in their morality rather than in their competences. However, recent evidence suggests, that the role of agency might be overlooked, and that under certain circumstances agency plays an important role in social interactions.

Across two pilots and three experimental studies, we use agentic and communal faces from The Basel Face Database (Walker, Schönborn, Greifeneder, Vetter, 2018) as stimuli, due to their reliability in conveying the two primary dimensions. According to Willis and Todorov (2006), people do not need any other context for the assessment of other person's communion (and agentic) level than a quick and easily observable hint in the face of the assessed person. Furthermore, perceivers are consistent in evaluating faces both on the trait level and its valency (Oosterhof & Todorov, 2008).

We use face in the crowd paradigm to differentiate the more important stimulus when no other information is provided and to examine which dimension as represented on faces reaches first the conscious awareness while contributing something important.

We show, that agentic faces, both on the low and on the high level, are faster and easier to find in the crowd, whereas communal faces are difficult to notice among neutral ones. Moreover, information about targets agency level does not change the classification accuracy. It confirms agency trait as more important for the observer and can influence its motivation in the case of the fight-or-flight response. There is no such effect in the communion dimension. This feature is more difficult to differentiate from the crowd and it takes more time to make a correct answer.

Taken together, our results significantly support that agency may be more valuable than suggested by previous studies. Though communion is more desirable when judging others, it has no priority in intuitive short-attention task, in this case, finding the face in the crowd.

Keywords: agency, communion, The Basel Face Database, face in the crowd, The Big Two

## 15:15

### Faces evoking emotions stereotypically triggered by groups: Introducing a refined reverse correlation approach

Matthias Keller, Leonie Reutner, Rainer Greifeneder, and Mirella Walker

University of Basel – Switzerland

In this contribution, we elaborate on the question whether the emotions most prominent in group perception (i.e., admiration, envy, pity, and disgust) are evoked from faces as well and how these emotions are related to each other on an individual level. Furthermore, we present an innovated method to visualize facial prototypes in an ecological way, which enables to relate different prototypes with each other. In Study 1, we extracted the facial prototypes that evoke the emotions admiration, envy, pity, and disgust by combining the traditional reverse correlation technique's basic tenets with a statistical face space and up-to-date computer graphics. Additionally, we extracted the facial prototype of someone evoking fear because of its' conceptual proximity to admiration. Study 2, successfully validated the emotion prototypes. Furthermore, we found an admiration-envy, and disgust-fear similarity (e.g., someone admired likely is also envied). Study 3 and 4, show the same pattern with non-manipulated faces (Study 3) and on a conceptual level (Study 4) as well, highlighting that these similarity patterns are reliable and are going beyond the domain of face perception. In an attempt to remap the extracted emotion prototypes on the two-dimensional warmth-competence grid (Study 5), we showed that the emotion prototypes rather capture whether someone will be approached (those admired, envied, and pitied) or avoided (those loathed or feared). Taken together, our results show that the emotions that are prominent in group perception are evoked by faces as well, although in a more ambiguous pattern. The introduced method makes it possible to represent stereotypes in faces in a realistic manner, which can serve as stimuli in future research.

Keywords: reverse correlation, statistical face models, impression formation, emotions, stereotype content model

15:45

## Differences in Faces do Make a Difference: Diversity Perceptions and Preferences in the Domain of Personality

Mariela Jaffé, Matthias Keller, Loris Jeitziner, and Mirella Walker

University of Basel – Switzerland

Throughout previous research focusing on individuals' diversity perception, it remains somewhat unclear which differences regarding various attributes (i.e., objective diversity, reflecting objective differences in gender or working habits) are reflected in evaluations of diversity (i.e., perceived diversity of a group). Some research indicates a strong association between easily detectable attributes such as gender or race, while this association is weaker when investigating less obvious attributes such as personality. Throughout three studies we investigated whether individuals are able to reflect on diversity in regards to personality, as readily derived from other people's faces. To this end facial features of group members were manipulated to appear more similar or different in regards to the Big Five personality dimensions and participants were asked to rate their perceptions of the diversity of the respective group (Study 1) or make hiring choices in regards to potential new group members (Studies 2 and 3).

In Study 1 we found support that differences in perceived personality dimensions such as extraversion, agreeableness, and openness to experience are reflected in perceptions of diversity. Differences in neuroticism and conscientiousness, however, are not reflected in perceptions of diversity. As strongest effects were obtained regarding the factor of extraversion, we focused on this personality dimension for the following two studies. Study 2 provided further support that differences in personality are considered when being instructed to assemble either diverse or homogeneous teams, meaning that participants were more likely to choose a different candidate when instructed to increase diversity and a similar candidate when instructed to increase homogeneity. In Study 3, we investigated the impact of diversity beliefs, showing that even in an ambivalent setting (without specific hiring instructions), individuals who believed in the value of diversity were more likely to assemble a team that is diverse in regards to perceived extraversion.

Concluding from the results of the three studies, individuals seem to be well able to detect diversity in regards to personality and consider these differences when being asked to evaluate the perceived diversity in teams. Furthermore, they consider diversity regarding personality when assembling teams, and are more or less likely to do so when seeing value in diversity or homogeneity. These results highlight the importance of the investigation of diversity perceptions and broaden the concept's scope by investigating Big Five personality dimensions derived from faces.

Keywords: perceived diversity, diversity beliefs, personality, faces

### Room *Sauvignon* - Session 35: Categorization/ Control

14:45

## Unite Against: A common threat invokes spontaneous decategorization between social categories

Felicitas Flade<sup>1</sup>, Yechiel Klar<sup>2</sup>, and Roland Imhoff<sup>1</sup>

<sup>1</sup>Johannes Gutenberg - University of Mainz – Germany ; <sup>2</sup>Tel Aviv University – Israel

A frequent rhetoric in the political arena calls members of larger groups like nations to lay aside all dividing differences and unite in face of a common threat. In the present research we sought to test whether such a unifying effect of external threat already manifests in such basic cognitive processes as automatic categorization even for such strong schisms as the ones between black and white Americans or Israeli Jews and Arabs. In Studies 1 & 2 (N = 183 / 144, USA), we established the decategorization effect in the context of black and white US Americans. In Study 3, we showed the effect again in a German lab for the gender category (N = 101). In Study 4 (N = 168, Israel), we transferred the effect to the context of the Israeli-Palestinian conflict and teased

apart the separate effects of intergroup threat, common goal and common threat, and category membership of participants. In summary, we are able to show that a "common enemy" perceptually unites social groups already at the early stage of automatic social categorization.

Keywords: Social Categorization, Threat, Group Processes, Automatic processes

### 15:15

## Black and White vs. Shades of Grey – Categorical vs. continuous social perception as a personality trait

Lea Sperlich, Felix Speckmann, and Christian Unkelbach

University of Cologne – Germany

The ability to categorize things can be described as "the primitive in all behavior and mental functioning" (p. 143, Thelen, & Smith, 1994). Categorization serves at least two important functions. First, minimizing cognitive effort. Second, structuring the world around us (Rosch, 1978). However, there are other ways to mentally structure the world. For example, one may perceive people as women or men (categorical) or along a continuum from extremely masculine to extremely feminine.

We hypothesize that this tendency to structure stimuli categorical or dimensional may be a trait and is independent of motivational tendencies such as need for cognition or need for structure.

To test our hypothesis, participants completed a spatial arrangement task (i.e., arranging stimuli by (dis)similarity), followed by a reaction time task, in which those stimuli had to be classified as belonging to one of two categories (e.g. pictures of spiders and insects should be classified as spiders or insects, respectively). Because the perceived similarity in stimuli is assumed to be higher the stronger people cluster (i.e., categorize) them, the evaluation of those stimuli should also be faster. If pictures of men and women are split into two very dense and distinct clusters, they might be faster classified as "strong" (stereotype towards men) or "warm" (stereotype towards women).

Indeed, we found that participants differed in the strength of clustering stimuli and these differences predicted classification latencies.

The results show that variance in clustering emerges on the individual level and that this variance correlates with reaction time; participants who stronger clustered spiders and insects faster classified spiders and insects as such.

In follow-up studies, we will test if this effect generalizes to other stimuli (e.g. pictures of plants, smileys, vehicles). In addition, we aim to show that motivation does not influence categorization by measuring the explicit preference of highly clustered vs. lowly clustered arrangement solutions. If we cannot find a difference in preference between both patterns, this is first evidence against a motivational explanation.

This potential personality variable may serve as an explanation for cultural differences in social construals (e.g., independence vs. interdependence) and may predict inter-individual differences in stereotyping and prejudice, independent of other personality variables (e.g., Social Dominance Orientation or Right-Wing Authoritarianism).

Keywords: categorization, Spatial Arrangement Method, response latencies

### 15:45

## What accounts for diverse effects of evoked lack of control on (social) cognition? A revisited framework of agents, means and ends of control

Marcin Bukowski, Anna Potoczek and Miroslaw Kofta

Jagiellonian University – Poland

The effects of personal uncontrollability on cognitive performance were widely studied within a research

tradition that defines lack of control as non-contingency between behaviors and outcomes (Seligman, 1975; Sedek & Kofta, 1990; Ric & Scharnitzky, 2003). This line of research mainly provided evidence for deterioration of more complex cognitive activity (such as avoidance learning, mental model creation etc.; Kofta; 1998; von Hecker, Sedek, 1999) but also of basic mechanisms involving executive control (i.e. attentional control and cognitive flexibility; Bukowski et al., 2015; Bukowski et al., 2019). In the past decade there has been also an increase in research that examines the effects of lacking personal control on social cognition (Kay et al., 2008; Whitson & Galinsky, 2008). Here, lacking control was shown to lead to cognitive activity that involves perception of non-existing patterns, illusory correlations, superstitions, conspiracies, or enhanced beliefs in creating God, benevolent governments or progress (for overview see Rutjens & Kay, 2017). These accounts studied control understood as a perception that the person (agent) is able to attain desirable outcomes and avoid undesirable ones. Whereas the first account showed that control deprived subjects reveal problems with information and response selection, integration and making sense of complex environments, the other line of research emphasized the way of coping with uncontrollability by using compensatory strategies and active search for structure and predictability. Those two types of cognitive outcomes seem incompatible at first sight.

In this talk we analyze the possible sources of those differences in results showing impact of lacking control on cognitive processing. Referring to the framework proposed by Skinner (1996), we focus on different ways of inducing uncontrollability in order to explain its diverse effects on cognitive functioning. We propose a theoretical framework that highlights the role of different types of uncertainty evoked by those two types of manipulations: behavioral uncertainty evoked by manipulations that affect the means – ends relation and personal uncertainty evoked by manipulations addressing the agent - ends relations (Bukowski, Sedek, Potoczek, 2019).

We reviewed an existing body of research, which applied those different types of control manipulations (40 studies). As a result of this analysis we identified consistent effects of means – ends control manipulations on impaired cognitive performance (Bukowski & Kofta, 2017). However, we observed considerable variability in the direction and strength of the effects of agent - ends control manipulations (e.g. mind-set priming procedures based on autobiographical memories induction) on cognitive processing (e.g. structuring or pattern perception). We argue that manipulations involving personal control perceptions induce mainly personal uncertainty related to one's own knowledge about the surroundings and less one's ability to act as an autonomous agent, which is the central aspect of personal control. Concluding, we call for joint (multilab) research that would systematically test the impact of lack of control manipulations evoking different uncertainty-related processes on basic and social cognition.

Keywords: control deprivation, uncertainty, agency, social cognition

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