

**ESCON**

**COLOGNE**

**2018**



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## ACKNOWLEDGEMENTS

This meeting is supported by

Center for Social and  
Economic Behavior C-SEB  
University of Cologne



German Science Foundation



Research Unit  
“Relativity in Social Cognition”



*Relativity in Social Cognition*

Competence Area II  
Social and Economic Behavior  
University of Cologne

The organizers are most grateful for the generous support.

## **ORGANIZATION**

### **Organizational Committee**

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Anne Gast

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### **With special thanks to**

Monika Wegener

Jennifer Mayer

### **Best Paper Committee**

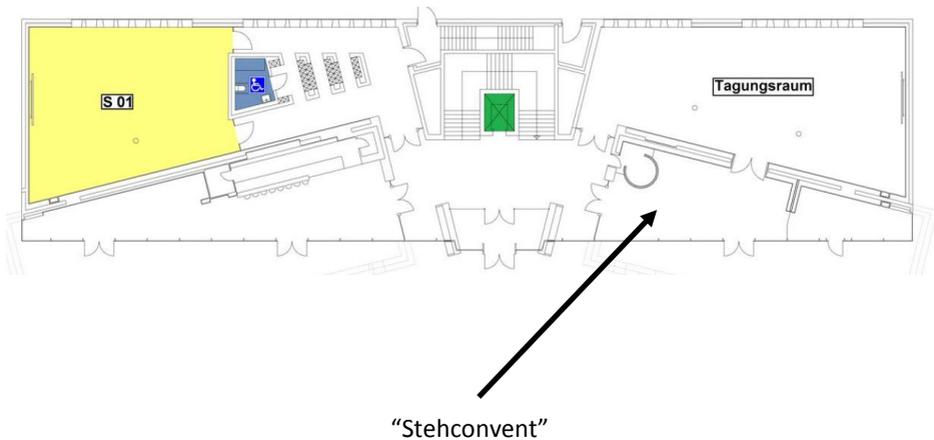
Ana Guinote, University College London

Malgorzata Kossowska, Jagiellonian University

Dominique Muller, University Grenoble Alpes

## REGISTRATION

Please register during the Welcome Reception on Sunday evening or on Monday morning at the “Stehconvent”, at the ground floor of the “Seminargebäude”.



## **LOCATIONS**

## **Conference Locations**

(Google Maps compatible)

### **Welcome Reception**

Hauptgebäude Universität Ost

### **Registration, Talks, Conference Office, and Tea/Coffee**

Seminargebäude

Universität zu Köln

### **Keynotes, Welcome and Farewell Meetings**

Philosophikum

Universität zu Köln

## **Welcome Reception and Locations**

The welcome reception will take place in the main building of the University.  
The address is:

Universität zu Köln

Albertus Magnus Platz

Hauptgebäude Ost

The map on the next page shows where to go.

The following pages show the locations of the “Seminargebäude” with the Rooms A to E, the way to the lecture hall, the location of the “Alte Liebe”, and the way to the Farewell Party.

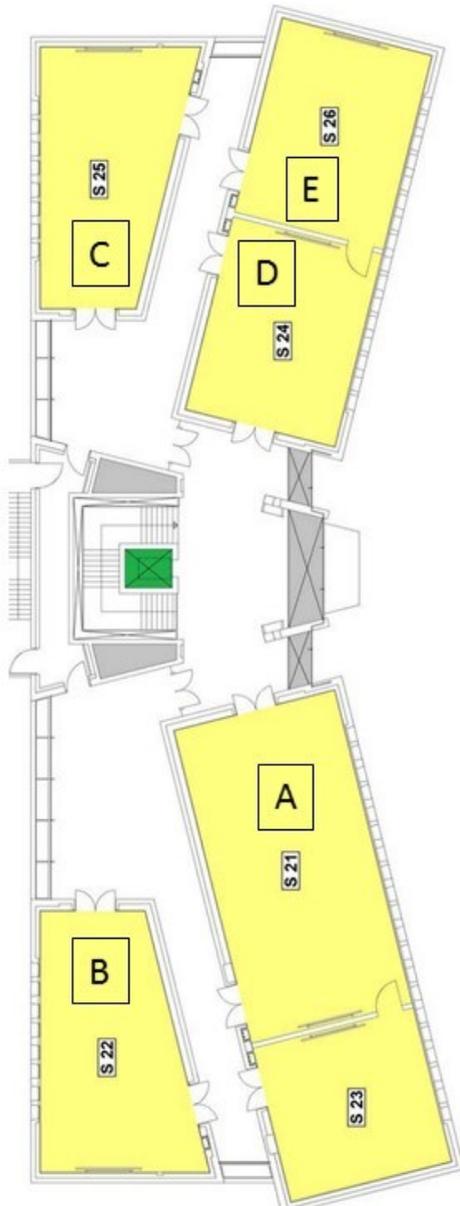
The Hauptgebäude, the Seminargebäude, and the Lecture Hall are all located at the Albertus Magnus Platz.



Lecture Hall and Rooms A to E



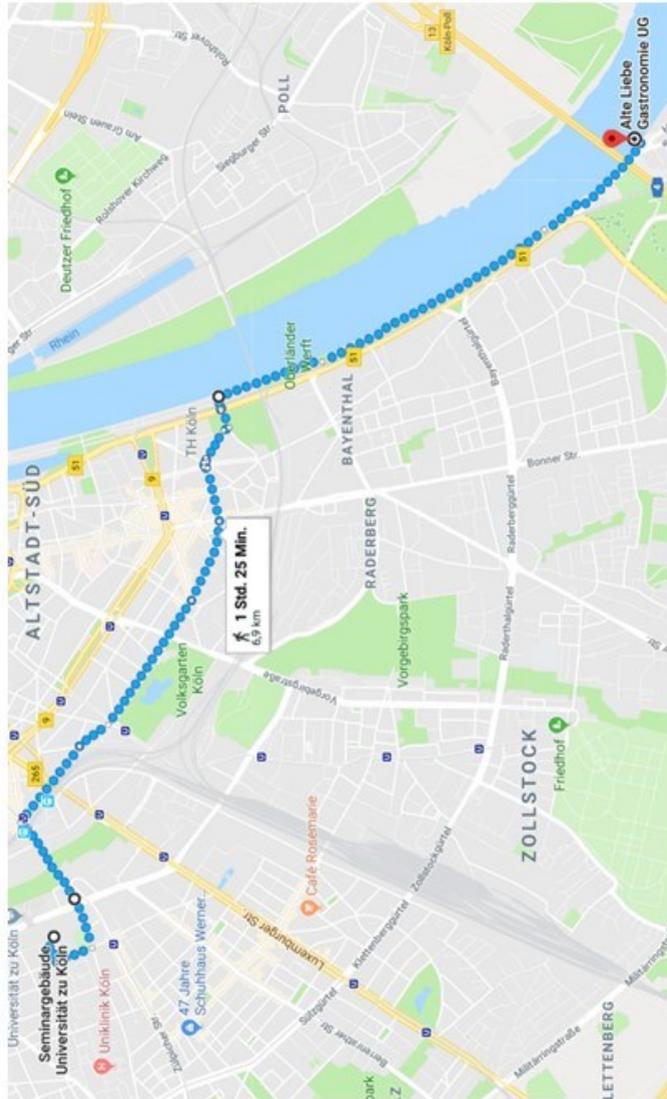
2nd Floor "Seminargebäude"



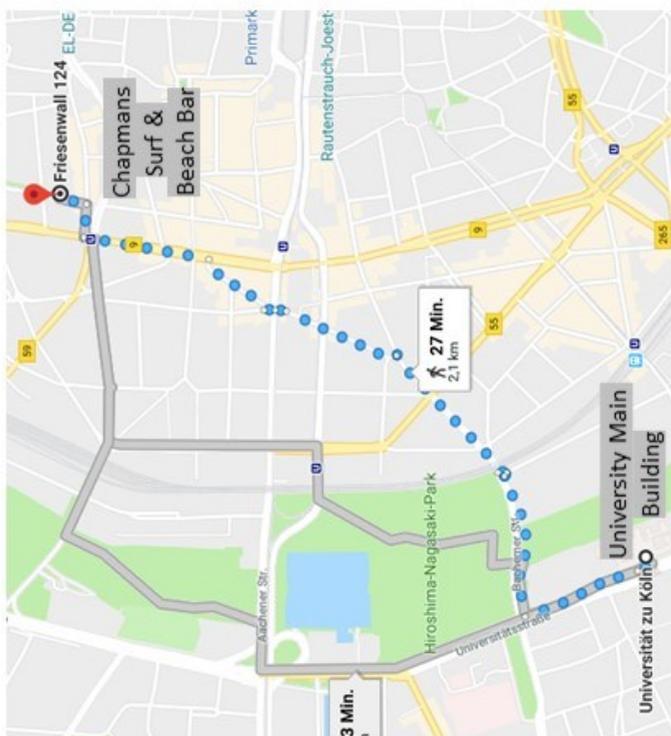
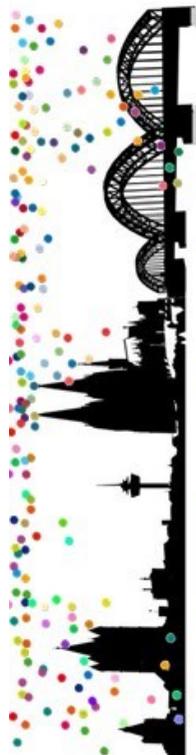
Ground Floor Lecture Hall H80



## Directions to the “Alte Liebe”



## Directions Farewell Party



Farewell  
Dinner &  
Party  
19:00

### CHAPMANS SURF & BEACH BAR

Address: Friesenwall 124,  
50672 Köln

Station: Friesenplatz (Line  
3,4,5,12,15)

From the University station:  
Line 9 to Zülpicher Platz  
Platform 2: Change to line 12  
or 15 to Friesenplatz

**PROGRAM**  
**(please rotate)**



Program Overview: Monday Morning

Monday, September 3rd, 2018

Registration: "Steihconvent"

Welcome and BPA-Announcement

Deire Gentner:  
The Relational Mind  
Lecture Hall

Tea and Coffee Break

**Blases in Cognition and Action**      **Approach - Avoidance 1**      **Face Perception 1**      **Interpersonal Processes**  
Chair: Hans Alves      Chair: Mandy Hütter      Chair: Marco Biella      Chair: Johannes Prager

Incentives as a tool to disentangle avoidable and unavoidable sources of bias in human decision making      Effects of approach-avoidance training on indirect evaluation change: A case study of mathematics among under-identified to      Conceptual trait space shapes perceptual trait space      Comparing impression formation from sequential self-truncated trait samples to yoked controls

Felix Speckmann, Christian Unkelbach, and Carlos-Cédric Batailler, Dominique Müller, Cécile Nurra, Aloïs Ferrer      David Trouilloud, and Anaëlle Brion      Matthias David Keller, Ryan Stoller, Eric Hehman, Mirella Walker, and Jonathan Freeman      Johannes Prager and Klaus Fiedler

**Cumulative information bias**      An experimental approach to investigating the effects of approach and avoidance connotations of colors on the perceived attractiveness of the wearer      **Rearranging the face space, an exploration using the spatial arrangement method**      Influence of threat to personal control on norm interest, detection, and following: Social and cognitive underpinnings

Hans Alves and André Mata      Mandy Hütter and Oliver Genschow      Marco Biella, Felix Speckmann, and Marco Brambilla      Anna Poboczek, Marcin Bukowski, Katarzyna Jasko, and Katarzyna Jamroz

**Habits vs. nudges: The influence of externally triggered automatic processes on observed behaviour**      **Toward an embodied and situated view of social interaction: Approach/Avoidance behaviors and evaluative processes**      **Social conditionality of attentional capture by angry faces: The role of group attitudes and sex**

Tina Annie Geuzena Venema, Floor M. Kroese, Bas van der Wal, Marie-Pierre Fayant, and Theodore Alexopoulos      Verplanken, and Denise T. De Ridder      Quentin Victor, Alice Normand, Delphine Marinot, Michaeł Berthon, Pascal Huguet, and Laetitia Silvert

Distance influences stability of attribution

Lunch Break

Monday, September 3rd, 2018

	Stereotypes and Prejudice 1	Approach - Avoidance 2	Face Perception 2	Impression Formation
14:00	<p><b>We are UNIQUE: Automatic processes in dehumanization</b></p> <p>Chair: Selma Rudert</p> <p>Maria Drogosz, Katayuna Hamed, Sam McElindal, Agathe Gollada, Liliana Marique Cabana, and Magdalena Zubiak Pechla</p>	<p><b>The idiosyncrasy of approach effect on the self</b></p> <p>Chair: Margarita Garrido</p> <p>Marie-Pierre Fayant, Ivane Nuel, and Theodore Alexopoulos</p>	<p><b>Fear odor facilitates the detection of fear expressions over other negative expressions</b></p> <p>Chair: Gün Semin</p> <p>Gün R. Semin, Roza G. Kamiloğlu, Monique Smeets, and Jasper H. B. de Groot</p>	<p><b>How do people explain others forgetting them? Attributional moderation of the interpersonal consequences of being forgotten</b></p> <p>Chair: Katharina Diehl</p> <p>Andrei Iulian Pintea, Devin G. Ray, and Sarah Gommilion</p>
14:30	<p><b>Contextual moderation of stereotype-related decision-making</b></p> <p>Johanna Falben, Marius Golubickis, and Neil Macrae</p>	<p><b>Effects of observed head orientation on numerical cognition</b></p> <p>Felix Johannes Götz, Anne Böckler, and Andreas B. Eder</p>	<p><b>The modern physiognomist: Mapping people's belief in the link between facial features and personality</b></p> <p>Bastian Jaeger, Anthony M. Evans, Mariëlle Steil, and IJla van Beest</p>	<p><b>You are funny, I like you! The diagnosticity of shared humor.</b></p> <p>Katharina Diehl and Matthew Baldwin</p>
15:00	<p><b>Excluding the cold and the carefree: perceived personality traits affect the risk of getting ostracized</b></p> <p>Selma Carolin Rudert, Matthias D. Keller, Mirella Walker, and Rainer Greifeneder</p>	<p><b>Embodied social cognition: The influence of consonant wanderings in judgments of warmth and competence</b></p> <p>Margarita V. Garrido, Sandra Godinho, and Gün Semin</p>	<p><b>The perception of North African people in a terrorist attack context: A stereotype misperception task study</b></p> <p>Rémi Courset, Dominique Muller, Juliane Dagner, Marco Perugini, Marine Rougier, and Yoann Julliard</p>	<p><b>Competent tears: Are tearful individuals perceived as less competent?</b></p> <p>Janis H. Zickfeld, Niels van de Ven, Thomas W. Schubert, and Ad Vingerhoets</p>

15:30

Tea and Coffee Break



Tuesday, September 4th, 2018		Attitudes	Eronous Beliefs and Conspiracies 1	Morality	Fluency Effects
09:00	<p><b>Stereotypes and Prejudice 3</b> Chair: Alex Koch</p> <p><b>Explicit and implicit compensation: the impact of social insertion</b></p> <p>Matthias Schmitz and Vincent Yzerbyt</p>	<p>Chair: Joana Mello</p> <p><b>Attitude generalization in impression formation</b></p> <p><b>Priming resistance to persuasion decreases adherence to conspiracy theories</b></p> <p>Jais Troian, Eric Bonetto, Florent Vareit, Grégory Lo Monaco, and Fabien Grandola</p>	<p>Chair: Max Henning</p> <p><b>The psychological foundations of moral dilemmas: A fluency account of state authenticity judgments – Revisiting common confounds and functional hypotheses</b></p> <p>Max Hennig and Mandy Hütter</p>	<p>Chair: Tobias Vogel</p> <p><b>A fluency account of state authenticity</b></p> <p>Matthew Baldwin, Wilhelm Hofmann, and Francesca Gino</p>	
09:30	<p><b>Dominant or prestigious? Perceived warmth and competence and their relationship with perceived group status</b></p> <p>Kevin J. M. Smith and Jenny Roth</p>	<p>Mayan Navon and Yoav Bar-Anan</p> <p><b>Investigating ambivalence via sequential priming: A window to ambivalent attitude structures</b></p> <p>Katharina Theresa Berger, Mandy Hütter, and Olivier Corneille</p>	<p>Chris Harris, Ruid Custers, and Klaus Fiedler</p> <p><b>The formation of eronous action-outcome representations</b></p>	<p>Mufan Zheng and Ana Guinote</p> <p><b>The Powerful use flexible moral thinking following organisational goals: a strategy to maintain authority</b></p>	<p>Lea Nahon, Rolf Reber, and Rainer Greifeneder</p> <p><b>Truth feels easy: Truthfulness of information enhances perceptual fluency</b></p>
10:00	<p><b>Stereotype diagnosticity increases stereotype usage</b></p> <p>Alex Koch, Philipp Henzel, Max Alt, Hans Alves, and Christian Unkelbach</p>	<p><b>The attitudinal entropy (AE) framework as a general theory of individual attitudes</b></p> <p>Jonas Dalgle, Denny Borsboom, Frank van Harveldt, and Han L. J. van der Maas</p>	<p>On seeing bad people: Perceivers' self-control abilities shape moral judgments of others' mental states</p> <p>Alexa Weiss, Matthias Forstmann, and Pascal Burgner</p>	<p><b>The use of conceptual versus perceptual fluency is specific to the judgment dimension</b></p> <p>Rita Silva, Tobias Vogel, Aurelia Thomas, and Michaela Wänke</p>	
10:30	<p><b>The newcomer effect: How body posture influences moral perceptions and pro-social behaviour towards refugees</b></p> <p>Sindhuja Sankaran and Paul van Lange</p>	<p><b>The effect of source physical attractiveness on attitude strength</b></p> <p>Joana Mello, Teresa Garcia-Marques, Pablo Briñol, Ana Cancela, and Richard E. Petty</p>	<p>Fieke M. A. Wagemans, Willem W. A. Sleegers, Mark J. Brandt, and Marcel Zeelenberg</p> <p><b>Boundaries of the mere liking effect: Looking for moderators of attitudinal influences on attributions of moral character</b></p>	<p><b>Why averages are (not always) beautiful</b></p> <p>Konrad Bocian, Wiesław Baryła, Wojciech M. Kulesza, Simone Schnall, and Bogdan Wojciszke</p>	
11:00	Tea and Coffee Break				
11:30	<p><b>Jeffrey Sherman:</b> <b>The Four Original Sins of Implicit Attitudes Research</b> Lecture Hall</p>				
12:00					
12:30					
13:00	Lunch Break				

Program Overview: Tuesday Afternoon

Tuesday, September 4th, 2018

**Stereotypes and Prejudice 4**      **Developmental Aspects**      **Erroneous Beliefs and Conspiracies 2**

Chair: Manuel Becker      Chair: Sara Mosteller      Chair: Paul Maher

13:30      The link between social categorization and prejudice: A matter of the situationally activated mental contents?      Exploring the neural mechanisms of communication and cooperation in children and adults      Inconvenient truth: A prototype analysis of the experience of disillusionment

Manuel Becker, Sarah Teige-Mocigemba, Jeffrey W. Sherman, and Karl Christoph Klauer      Sara Mosteller, Larissa K. Samuelson, Sobanawati Wijekumar, and John P. Spencer      Paul Maher, Eric R. Igou, and Wijnand A. P. van Tilburg

14:00      Generalizing stereotypes: Comparing statistical learning and classical conditioning as underlying mechanisms of stereotype learning      Cultural differences in dyadic interaction using head mounted cameras      An existential psychological perspective on the interpersonal functions and consequences of free will beliefs

Julia Charlotte Eberlein and Olivier Klein      Aneja Priema      Andrew B. Moynihan, Eric R. Igou, and Wijnand A. P. van Tilburg

14:30      Tea and Coffee Break

**Workshop 1**      **Workshop 2**      **Workshop 3**

There is nothing more practical than a good theory      A practical primer on transparent research workflows      Writing and communicating with the general public

Klaus Fiedler      Frederik Aust & Johannes Breuer      Matthew Baldwin, Jan Crusius, & Oliver Genschow

15:30

16:00

16:30      Tea and Coffee Break: at the workshop convenors' discretion

17:00

17:30

18:00

18:30      Rhine Walk and Dinner at the "Alte Liebe"

Wednesday, September 5th, 2018			
	Social Emotions 1	Indirect Measures 1	Self-Regulation and Mental Effort 1
09:00	<p><b>Judgment and Decision Making 1</b> Chair: Filipe Loureiro</p> <p>The social amplification of the denominator neglect</p> <p>Cristina Mendonça, André Mata, and Mário Boto Ferreira</p> <p>Jens Lange</p>	<p>It matters to understand what precisely is reflected in implicit bias scores is to design effective interventions</p> <p>Adam Hahn and Bertram Gawronski</p>	<p>The ability to pursue hedonic goals—A necessary counterbalance to the concept of trait self-control?</p> <p>Daniela Becker and Katharina Bernecker</p>
09:30	<p>Directional inferences in the framing effect with verbal quantifiers</p> <p>The effect of social comparisons on emotional reactions to others' fortunes and misfortunes</p> <p>Lea Boecker</p>	<p>Non-evaluative associations in the IAT</p> <p>Anat Hoss and Yoav Bar-Anan</p>	<p>Mental and physical effort, is it the same thing?</p> <p>Aviv Emanuel and Nira Liberman</p>
10:00	<p>I know the rule, but I'll just go with my gut: on the diagnosticity and rational use of intuition.</p> <p>Filipe Loureiro and Teresa Garcia-Marques</p>	<p>Social cognitive mechanisms of perceiving remorse</p> <p>Friederike Funk</p>	<p>Testing the <math>\Omega</math>-model: Justification of effort in daily life</p> <p>Mike Schreiber, Wilhelm Hoffmann, and Simone Dohle</p>
10:30	Tea and Coffee Break		
Wednesday, September 5th, 2018			
	Social Emotions 2	Indirect Measures 2	Self-Regulation and Mental Effort 2
11:00	<p><b>Judgment and Decision Making 2</b> Chair: Michael Zürn</p> <p>Economic proxy decisions are influenced by the social relation between proxy and decision recipient</p> <p>Janna Katrin Ruessmann</p>	<p>Discrepancy between implicit and explicit self-esteem as a predictor of life satisfaction</p> <p>Maciej Taraday, Robert Balas, et al.</p>	<p>Goal-directed allostasis: The unique challenge of keeping things as they are and strategies to overcome it</p> <p>Yael Ecker and Michael Gilead</p>
11:30	<p>Why people long to travel the world – Investigating lay beliefs about 'fermwebh'</p> <p>Corinna Michels</p>	<p>At the boundaries of misattribution: Does positivity influence judgments of familiarity in the affect misattribution procedure?</p> <p>Rebecca Weil, Tomás A. Palma, and Bertram Gawronski</p>	<p>Proactive considerations in effort allocation: the influence of motivation on asymptotic performance level in effortful cognitive tasks</p> <p>Maayan Katzir and Nira Liberman</p>
12:00	<p>Integrating advice weighting, confidence change, and advice seeking: a reliability account of advice taking</p> <p>Fabian Ache and Mandy Hütter</p>	<p>The curious case of asymmetric social categorization: High- but not low-agent social groups are categorized in the "who said what?"-paradigm</p> <p>Felicitas Flade and Roland Imhoff</p>	
12:30	Lunch Break		
13:00	Lunch Break		

Program Overview: Wednesday Afternoon

Wednesday, September 5th, 2018

	The Self	Social Emotions 3	Writing and Reading	Social Memory and Recollection
14:00	<p><b>The malleability of self-knowledge: The end of history illusion and the false consensus effect</b> Michał Przychocki, Wiesław Baryła, Olga Blakobrzecka, and Bogdan Wojciszke</p> <p><b>Integration of in-groups into the self-concept: A model based on cognitive consistency principles</b> Jenny Roth, Melanie C. Steffens, Vivian L. Vignoles, and Fritz Strack</p>	<p><b>No pain, no mercy? Effects of emotional victim feedback on giving help</b> Vanessa Mitschke, Mario Gollwitzer, and Andreas B. Eder</p> <p><b>Adverse weather evokes nostalgia</b> Wijnand Adrian Pieter Van Tilburg, Constantine Sedikides, and Tim Wildschut</p>	<p><b>Is it possible to reverse the spatial agency bias?</b> Katharina Adam, Tobias Vogel, and Michaela Wänke</p> <p><b>Text-based inferences about fictional characters: Do we all imagine the same Hamlet?</b> Stefanie Miketta and Malte Friese</p>	<p><b>Collective narcissism biases recall of threatening information</b> Alexandra Cichocka, Orestis Panayiotou, Marta Marchlewska, Joy Ableyev, and Natsasha Alexander-Groce</p> <p><b>False memories in bilinguals: exploring the role of affective grounding</b> Magda Saraiva and Margarida V. Garrido</p>
15:00	<p><b>Inconsistent – unthreatened? Reducing dissonance in hypocrisy</b> Marta Maj</p>	<p><b>The effects of visuo-spatial perspective-taking on trust</b> Thorsten Michael Erle, Janna Katrin Ruessmann, and Sascha Topolinski</p>	<p><b>Reading and writing habits: Horizontal asymmetries in visual attention</b> Rita Mendonça, Gün R. Semin, and Margarida V. Garrido</p>	<p><b>Learning new information during collaborative recall: Does perceived relevancy play a role?</b> Ana Lapa, Leonel Garcia-Marques, Andre Vaz, and Paula Carneiro</p>
15:30	Tea and Coffee Break			
16:00	Best Paper Award - Session Lecture Hall			
16:30	Closing Comments and Farewell			
17:00	Farewell Dinner and Party at "Chapmans" Friesenwall 124, 50672 Köln			

**KEYNOTES AND WORKSHOPS**

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**Keynote Address 1****The Relational Mind**

Dedre Gentner

Northwestern University

Relational learning and reasoning is central to higher-order cognition. It is essential in mathematics and science, and equally essential in social and ethical reasoning. Yet learning relational concepts is challenging, because, unlike concrete objects, relations are rarely obvious in perceptual experience. I suggest that relational knowledge is acquired largely through analogical comparison processes. Analogical comparison engages a process of structure-mapping that highlights common relational systems. The common relational structure then becomes more salient and more available for transfer—in short, a portable abstraction may be formed. The power of analogical comparison is amplified by language learning. For example, hearing a common label for two situations invites comparison between the situations, engaging a structure-mapping process that yields insight into the meaning of the term.

I will discuss work on how comparison fosters relational learning, on factors that impede or support this learning, and on how structure-mapping processes interact with relational language to accelerate relational learning. Finally, although analogical processing is thought of as a sophisticated process, there is evidence that the same kinds of structure-mapping processes occur in adults and children, and even in infants—implying that powerful learning processes are at work even in the first years of life.

Time                      Mon, Sept. 3rd, 9:30

Room                     Lecture Hall

## Keynote Address 2

### **The Four Original Sins of Implicit Attitudes Research**

Jeffrey Sherman

University of California at Davis

My talk will focus on theoretical issues pertaining to the interpretation of implicit measures and the conceptualization of implicit attitudes. First, I will emphasize the importance of distinguishing between responses on implicit measures and the construct those responses are presumed to reflect (implicit attitudes). As with all measures, the extent to which responses on implicit measures reflect their intended underlying construct is an empirical question. In the case of implicit measures of bias, responses reflect the contributions of a variety of processes, some of which are attitude-relevant, and some of which are not. The contributions of attitude-irrelevant processes are not insignificant, and account for considerable variance in responses. Second, I will discuss the distinction between operating principles (what processes are involved in implicit evaluation?) and operating conditions (which features of automaticity/control characterize those processes?) in understanding implicit attitudes. Just as implicit measures do not necessarily reflect the contents of memory, they do not necessarily reflect the extent of automaticity/control in responses. Rather, questions pertaining to operating principles and operating conditions must be pursued independently. Different processes that contribute to implicit evaluations possess different features of automaticity/control, and these relationships may vary with different implicit measures.

These issues are related to the still-dominant and problematic dual-process framework in which implicit bias is understood. They also have significant implications for our understanding of individual differences in implicit attitudes, the malleability and context-dependency of implicit attitudes, the prediction of behavior from implicit attitudes, and implicit attitude change.

Time                      Tue, Sept. 4th, 11:30

Room                     Lecture Hall

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## Workshop 1: “There is Nothing more Practical than a Good Theory”

**Convener: Klaus Fiedler**

The most important ingredient of excellent research is good theorizing. For psychological science to be enlightening and for empirical findings to be compelling, it is essential for psychology to overcome the stage of an empiricist discipline concerned with multiple significance tests of lottery-like unconnected hypotheses. It is essential to create and test hypotheses under strong theoretical constraints. The hypotheses tested in cumulative science are so deeply anchored in logical rules and well-established empirical laws that they cannot be disconfirmed by any set of data. Strong theorizing is immune to simple falsification.

The aim of this workshop is to illustrate the power of strong theorizing with reference to the wisdom of crowds – a theoretical notion that is deeply anchored in an uncontested rule, namely, Bernoulli’s law of large numbers. Starting with a playful discussion of bad theorizing and research sins, the workshop will highlight the progress and the insights gained from a decade of research on the wisdom of crowds. In addition to a review of theoretical developments, participants will be confronted with conflicting results and will be engaged in active solutions of theoretical problems and in the derivation of new research ideas. It will be seen that real scientific progress takes place in the theoretician’s mind; progress is hardly ever brought about by statistical data analysis. Ideally, the workshop goal is to demonstrate that good theorizing is not a mystery; it can be trained and mobilized on demand.

### *Suggested literature:*

- Fiedler, K. (2017). What constitutes strong psychological science? The (neglected) role of diagnosticity and a priori theorizing. *Perspectives on Psychological Science*, 12(1), 46-61.
- Gigerenzer, G. (1998). Surrogates for theories. *Theory & Psychology*, 8(2), 195-204.
- Herzog, S. M., & Hertwig, R. (2009). The wisdom of many in one mind: Improving individual judgments with dialectical bootstrapping. *Psychological Science*, 20(2), 231-237.
- Surowiecki, J. (2005). The wisdom of crowds. Anchor.

Time                      Tue, Sept. 4th, 15:00

Room                     A

## **Workshop 2: “A practical primer on transparent research workflows”**

**Conveners: Frederik Aust & Johannes Breuer**

Psychological science is facing a crisis of confidence fueled by concerns about replicability of empirical findings (e.g., Open Science Collaboration, 2015). In response, psychologists have been reviewing how they do research and are leading many initiatives to improve replicability. A fundamental element is greater transparency and intersubjective verifiability: Researchers increasingly publish research materials, data and analysis scripts, publicly preregister their studies, and share and discuss preprints. The evolving open science ecosystem provides a variety of tools and services to help researchers adopt transparent research practices. However, setting up a transparent research workflow involves a plethora of decisions that can be off-putting. Fortunately, transparent research practices can be adopted piecemeal---each incremental step adds positive value for individual researchers and the credibility of psychological research. This active workshop will walk participants through the process of preparing and sharing their research products, including materials, data, analysis scripts, and study protocols. It will address what, when, and how to share and help participants develop transparent, less error-prone, and more reproducible research workflows.

### *Suggested literature:*

- Klein, O., Hardwicke, T. E., Aust, F., Breuer, J., Danielsson, H., Hofelich Mohr, A., IJzerman, H., Nilsson, G., Vanpaemel, W., & Frank, M. C. (in press). A practical guide for transparency in psychological science. Collabra: Psychology.

Time                      Tue, Sept. 4th, 15:00

Room                     B

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**Workshop 3: Writing and Communicating with the General Public****Conveners: Matthew Baldwin, Jan Crusius, Oliver Genschow & Dirkje Pril**

Most scientists will probably agree that psychological research can be of great interest to society, but is often inaccessible to the greater public. To aid social psychologists in reaching larger audiences, In-Mind Magazine organizes an ESCON workshop *Writing and Communicating with the General Public*. How can you communicate your findings effectively? This workshop aims to support psychological scientists in this endeavor. You will start writing a psychological manuscript of your choice – but for the public. *Before* the workshop, you should prepare a first draft of an abstract and the initial paragraphs of the manuscript. During the workshop, we will provide hands-on tips on how to spice up your writing and how to avoid frequent pitfalls. Afterwards, assistance to participants will be continued by In-Mind editors, resulting in a submission of the articles in the online journal In-Mind. To get an impression of the magazine, please take a look at [www.in-mind.org](http://www.in-mind.org). Arguably, more people than in any other peer-reviewed psychology journal will read your work!

Time            Tue, Sept. 4th, 15:00

Room            C

**ABSTRACTS**

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Fabian Ache and Mandy Hütter

## **Integrating advice weighting, confidence change, and advice seeking: a reliability account of advice taking**

Few decisions and judgments are properly described as one individual acting in isolation or a group of equally involved individuals acting together. Rather in many situations, individuals can consult others for information. This interactive decision-making is the topic of advice taking. Taking advice increases accuracy. Specifically, the average of two judgments is often more accurate than either judgment alone. Consequently, a variety of research investigated individuals' advice weighting as a proximal determinant of the accuracy achieved through advice taking. However, after receiving advice individuals cannot only adapt their judgment. They can also adapt their confidence or choose to seek additional advice. These two constituents of advice taking have received relatively little attention. Moreover, there is no theory that can parsimoniously explain all three constituents: advice weighting, confidence change, and advice seeking. We propose a reliability account (RAT) as the first comprehensive theory of advice taking. RAT assumes that individuals' task-related information comprises all prior information an individual possesses and the advice, both of which are treated equally. Adopting recent insights from research on subjective confidence, RAT assumes that individuals are sensitive to the reliability of this task-related information, which depends on its amount and consistency and positively relates to subjective confidence. These two simple assumptions are sufficient to derive predictions regarding all three constituents of advice taking. First, confidence change after receiving advice depends on how advice changes the reliability of task-related information. Second, lower confidence predicts a stronger willingness to seek additional advice before giving a judgment. Third, advice weighting is a function of the relative consistency of the advisory information as compared to the prior judgment. Across four experiments, we manipulated advice distance either categorically (close vs. distant; Exp. 1 & 2) or continuously (Exp. 3 & 4). Additionally, we manipulated costs of advice (Exp. 2) and consistency of advice among advisors (Exp. 4). Lower confidence predicted increased advice seeking, beyond distance, costs, and consistency of advice. Close advice led to an increase in confidence. Additional sampling increased this confidence gain, but more so when advice was consistent among advisors. Distant advice increased advice weighting. Additional sampling also increased advice weighting, but this was more pronounced the more consistent advice was among advisors. These results support the assumption that the reliability of individuals' task-related information and its change through advice determine advice taking. Consequently, RAT constitutes a suitable framework to integrate the many findings on advice taking and to derive novel and intriguing hypotheses for future research.

**Session Judgment and Decision Making 3**

**Time Wed, Sept. 5th, 14:30**

**Room A**

## Is it possible to reverse the spatial agency bias?

Spatial Agency Bias (SAB, Suitner & Maass, 2016) refers to people's tendency to map agency onto the direction in which language is written and read. The SAB has multiple consequences with regard to human perception and cognition. Part of the SAB can be explained by word order. In a typical active sentence the grammatical subject represents the agent and precedes the object, e.g., Luca (subject) insults Giulio (object). This further results in a tendency to position the thematic agent of an action onto the left of the recipient. Maass and colleagues (2013) provide evidence for this hypothesis by using a picture-matching task. However, using exclusively active voice, grammatical subject and thematic agent were confounded. Thus, it is unclear if the grammatical subject or the thematic agent affects this asymmetrical bias. This is where passive voice comes into play: Passive voice turns the patient (receiver of the action) into the grammatical subject and the agent into the object: E.g., Giulio (subject) was insulted by Luca (object). This allows us to disentangle effects of grammatical subject and agent in a picture-matching task. In two experiments using the material of the picture-matching task by Maass and colleagues, grammatical voice (active vs. passive) of a scene description was manipulated in a within-subject design (study 1; N = 121) and a between-subject design (study 2; N = 167). We replicated a preference for the agent on the left in the active voice condition. However, we found a preference for the agent on the right in the passive voice condition. Thus, we found evidence for a reversal of the Spatial Agency Bias by using passive voice. This reversal involves a preference of the grammatical subject of the sentence, independent of thematic role. In subsequent research, we want to analyze the underlying mechanisms of this reversal as well as practical implications of these findings. We are especially interested in potential matching effects of text and picture in the domain of advertisement or social perception (e.g. effects of blaming the victim).

Session      **Writing and Reading**

Time          Wed, Sept. 5th, 14:00

Room         D

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Hans Alves and André Mata

## Cumulative information bias

Since the seminal work of Tversky and Kahneman (1974), it is a widely accepted notion that economic theories have to take into account the shortcomings of human judgment and decision making, which often violate basic principles of logic reasoning. A great deal of research has identified basic principles and biases of human impression and attitude formation (Anderson, 1971; Eagly & Chaiken, 1992). This research is concerned with the question how novel information is integrated with previous information in the updating of an evaluation or a judgment while novel information is typically presented in the form of single, independent observations. In real life, however, information is often presented in a cumulative format. The most recent information is a summary (e.g., mean, median, sum) of all previous information. Examples are the current stock value, or the current standing of a sports team. Hence, when information is cumulative, the most recent observation is the most informative and predictive one. Consequently, a rational judge when evaluating a performance, should only consider this observation and disregard all previous observations as they are fully redundant. Likewise, once a perceiver knows the end result of a given performance sequence, his or her judgment and evaluation of the competitors should only be based on the end result, and should not be influenced by the performance history. In the present work, we introduce a fundamental principle that describes how perceivers are influenced by performance history when information is cumulative: When observing performances of two competitors over several instances, cumulative information signals at each instance the relative standing of the competitors. We argue that each such instance influences people's evaluation of competitors' performances by means of associative learning. For example, if the winner of a horse race takes the lead early in the race, people repeatedly learn that this horse is stronger. When the winner takes the lead only at the end of the race, only a few learning trials signal that the winner horse is stronger. Consequently, we predict that people judge an early winner as stronger than a late winner. Likewise, if two competitors draw, people should judge the competitor who was leading during the majority of observations as stronger. We confirmed these predictions in seven experiments, which measured performance judgments (quality, prediction of future performance) in different outcome scenarios ("winner/loser" vs. "draw") and in different domains (horse race, computer algorithm speed tests, sport team performances and stock performances). The results confirmed that the bias only occurs if information is provided in a cumulative format, but is absent or even reversed when information is non-cumulative. Further, the bias is a function of the number of learning trials (i.e., observations). While the bias is strong after 12 observations, it is absent after only 4 observations. These findings suggest that the bias can be explained by simple models of associative learning (e.g., De Houwer et al., 2001).

**Session**      **Biases in Cognition and Action**

**Time**          Mon, Sept. 3rd, 11:30

**Room**        A

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Matthias Aulbach, Keegan Knittle, and Ari Haukkala

## **Interventions on implicit processes in dietary behavior – A meta-analysis on moderating and mediating variables**

Dual-process models integrate deliberative and impulsive mental systems, and predict dietary behaviors better than deliberative processes alone. Computerized interventions developed to directly alter impulsive behavioral antecedents include the Go/No-Go, Stop-Signal and Approach-Avoidance tasks. The current meta-analysis examines the effects of these tasks on dietary behaviors, explores sample- and task-related characteristics as potential moderators of effectiveness, and examines stimulus devaluation as a proposed mediator. Nineteen randomized controlled trials testing one of these tasks (38 comparisons) were included in a random-effects meta-analysis, which indicated small cumulative effects on eating-related behavioral outcomes ( $g = -0.18$ ,  $CI_{95} = [-0.32; -0.05]$ ,  $p = .008$ ) and stimulus evaluations ( $g = -0.30$ ,  $CI_{95} = [-0.50; -0.09]$ ,  $p = .004$ ). Task type was the only significant moderator of these effects, with Go/No-Go tasks producing larger effects than Stop-Signal or Approach-Avoidance tasks. Effects of interventions on stimulus evaluations were related to effects on eating behavior ( $B = 0.46$ ,  $CI_{95} = [0.11; 0.82]$ ,  $p = .01$ ). Future research should focus on Go/No-Go tasks for altering dietary behavior via the impulsive system, and should explore effects of these interventions over longer periods of time with repeated exposures, especially in real-world as opposed to laboratory settings. This should include measurements of stimulus devaluation to further improve our understanding of intervention mechanisms.

Session      **Preferences and Consumption 1**

Time          Mon, Sept. 3rd, 11:00

Room         E

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 Matthew Baldwin, Wilhelm Hofmann and Francesca Gino

## A Fluency Account of State Authenticity

The challenge of knowing and being true to oneself is a prevalent theme in popular culture, philosophy, and religion. Authenticity is equated with moral goodness (Gino et al., 2015) and is seen as essential for the good life (Harter, 2002). Traditions in psychology have defined authenticity as a trait--the extent to which someone is living out their true self (Kernis & Goldman, 2006). However, recent approaches have defined authenticity as a state--momentary feelings that one is authentic. Support for this perspective comes from findings that feelings of authenticity vary across situations to a greater degree than across individuals. In general, state authenticity is associated with low-arousal positive affect such as contentment and arises during related experiences such as during meditation (Lenton et al., 2015). Conversely, inauthentic experiences are characterized by anxiety and difficulty. Moreover, certain actions can feel authentic (e.g., extroversion) even if they do not align with one's disposition (e.g., introversion; Fleeson & Wilt, 2010) and some actions can feel authentic even when they do not meet cultural prescriptions for well-being (e.g., gambling; Lenton et al., 2015). Thus, it appears as though feelings of authenticity are not completely rooted how much one is living out the true or good self. What other processes, then, can explain momentary feelings of authenticity? In the current research, we explore the hypothesis that perceivers use feelings of fluency to infer whether their momentary experiences are authentic or not. Because authenticity is defined as the feeling of being "real" or "true" to oneself, we expect that the absence of tension, conflict, or difficulty (or rather, the experience of ease) during some experience will be interpreted as authenticity, because living out one's true or real self feels easy (Lenton et al., 2015). This hypothesis was broadly supported in five studies (total N = 1424). In Study 1, participants who were randomly assigned to a disfluent version of an authenticity measure reported having a disfluent experience while completing measure. These resulting feelings of disfluency, but not general mood, predicted lower authenticity. Study 2 used an ease of retrieval paradigm and showed that perceived authentic living was lower when participants recalled many (disfluent), compared to few (fluent), examples of authentic behavior in their daily lives. This effect was mediated by retrieval difficulty. In Studies 3a/3b, participants experienced disfluency when a self-expression task was made difficult by a disfluent font manipulation (3a) or was completed with the non-dominant hand (3b). Feelings of disfluency, in turn, predicted lower authenticity. Finally, Study 4 asked participants to indicate how fluent and authentic their most recent daily activity felt. Fluency was the primary factor in determining momentary authentic feelings, even when considering other factors. Taken together, these findings support a fluency account of authenticity, and thus, shed light on the cognitive roots of authenticity in daily life. This research also has numerous implications for understanding the role of fluency in both positive and negative behaviors and experiences, such as healthy eating, smoking, and secure relationships.

<b>Session</b>	<b>Fluency Effects</b>
<b>Time</b>	Tue, Sept. 4th, 9:00
<b>Room</b>	C

Cédric Batailler, Dominique Muller, Cécile Nurra, David Trouilloud, and Anaëlle Brion

## **Effects of approach-avoidance training on indirect evaluation change: A case study of mathematics among under-identified to mathematics women**

There is now a large body of evidence showing that approach-avoidance training (AAT) can influence indirect evaluation of stimuli: Training individuals to approach or avoid stimuli changes the way stimuli are indirectly evaluated in a way that approached stimuli are evaluated more positively than avoided one (see Van Dessel, De Houwer, Gast, & Tucker Smith, 2015). While research focusing on novel stimuli (i.e., evaluative response formation) consistently provides evidence for a medium-to-large effect size with experiments investigating the effect of AAT on a variety of indirect evaluation measures (e.g., Van Dessel, Gawronski, Colin Tucker, & De Houwer, 2017), research focusing on already-known stimuli (i.e., evaluative response change) does not offer results as robust. Mathematics are an example of already-known stimulus with an existing indirect evaluative response: The difference between men and women on indirect evaluations of mathematics have been largely documented and consistently shows that women tend to evaluate less positively mathematics and tend to identify themselves less to mathematics (e.g., Nosek, Banaji, & Greenwald, 2002). This topic offers a way to study effects of AAT on evaluation of stimuli for which a specific evaluative response already exists, allowing us to estimate if what has been found on indirect evaluative response formation can be generalized to indirect evaluative response change. This topic has been investigated by Kawakami, Steele, Cifa, Phills, and Dovidio (2008) whose experiment found that approaching mathematics related stimuli reinforces the implicit association between the self and mathematics for women with low identification to mathematics (as measured with an identification IAT). Unfortunately, these experiments suffer from important limitations, namely an approach AAT task which is considered ambiguous (i.e., a feedback-free Joystick Training) and a small sample size (i.e.,  $N = 56$  overall for a two-condition between-subjects design). Therefore, we decided to replicate Kawakami et al.'s work (2008) while overcoming these limitations. We used an AAT paradigm in which the interpretation of the movement would not be ambiguous: the Visual Approach Avoidance by the Self Task (Rougier et al., 2018); and we pre-registered a sample size of 200 women with low identification to mathematics from Grenoble, France. Two hundred and one participants took part in this experiment and had either to approach mathematics and avoid arts or the opposite during a VAAST-based AAT. Then, they completed an identification IAT. Our results revealed an unexpected small significant effect in the opposite direction: participants who had to approach mathematics were significantly quicker in the identification IAT block where "mathematics" and "self" were not associated to a same response key than in the block where they were. Interpreted within a meta-analytical framework, results from this pre-registered experiment nuance what we thought about the effect of mathematics AAT. We will discuss these results in light of original Kawakami et al. (2008)'s work and theoretical frameworks explaining evaluative response formation by AAT (see Van Dessel et al., 2017)..

Session      **Approach - Avoidance 1**

Time          Mon, Sept. 3rd, 11:00

Room         B

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Daniela Becker and Katharina Bernecker

## **The Ability to Pursue Hedonic Goals—A Necessary Counterbalance to the Concept of Trait Self-Control?**

Research on trait self-control gathered substantial evidence that the ability to forego short-term, hedonic goals in favor of long-term, personal goals is adaptive. However, the field has so far overlooked the fact that personal goals can also undermine hedonic goal pursuit (e.g., people experience intrusive thoughts about work when trying to relax). We developed a self-report scale to assess people's ability to pursue hedonic goals and tested its validity. In three correlational studies (N1 = 590, N2 = 394, N3 = 246) the scale showed a consistent factor structure and no significant overlap with trait self-control. Further, in a laboratory study (N = 198) the ability to pursue hedonic goals negatively predicted the number of intrusive thoughts during a 10-min relaxation phase and positively predicted life satisfaction. These findings call for a more balanced view on hedonic goals and the need to study how well people succeed in pursuing them.

Session      **Self-Regulation and Mental Effort 1**

Time          Wed, Sept. 5th, 9:30

Room         D

Manuel Becker, Sarah Teige-Mocigemba, Jeffrey W. Sherman, and Karl Christoph Klauer

### **The link between social categorization and prejudice: A matter of the situationally activated mental contents?**

Previous research has produced conflicting evidence for the extent to which social categorization contributes to a person's prejudice apart from being a necessary condition for it (cf., e.g., Park & Judd, 2005). This debate can be informed by recent theories that especially rather automatic social evaluations, approximated by indirect measurement procedures like the Evaluative Decision Task (Fazio, Jackson, Dunton, & Williams, 1995), are heavily influenced by situational factors (e.g., Payne, Vuletich, & Lundberg, 2017). In combination with the empirical evidence that situational factors play a large role in social categorization as well (e.g., Klauer, Hölzenbein, Calanchini, & Sherman, 2014), it appears likely that the link between social categorization and prejudice is also subject to them. In two studies (joint N=200), one exploratory, the other confirmatory, we advance the hypothesis that the context in which outgroup members are encountered is an important moderator of the relationship between categorization and prejudice: More specifically, the amount to which participants process category information in a discussion in the "Who Said What?" paradigm (Taylor, Fiske, Etcoff, & Ruderman, 1978) covering topics where it is an asset to be black was reliably associated with positive evaluations of blacks in an Evaluative Decision Task. This association, established in a Bayesian multilevel extension of the multinomial model for the "Who Said What?" measurement outcome proposed by Klauer, Ehrenberg, and Wegner (2013), was reversed for topics where it might be seen a detriment to be black. In a follow-up study, we plan to replicate the latter condition with an even larger sample size, and assess the retest reliability for the categorization and evaluation measurement outcomes, and for the link between categorization and prejudice. This information could then enable subsequent research to explore the causal relationship between categorization and prejudice in much more depth (e.g., does the extent of prejudice determine the extent to which people process either negative or positive information about the outgroup?). So far, we interpret our tentative results as suggesting that categorization needs to remain a viable player in theoretical accounts of prejudice.

Session      **Stereotypes and Prejudice 4**

Time          Tue, Sept. 4th, 13:30

Room         A

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Katharina Theresa Berger, Mandy Hütter, and Olivier Corneille

## Investigating Ambivalence via Sequential Priming: A Window to Ambivalent Attitude Structure

While univalent attitudes are characterized by either positive or negative associations, ambivalent attitudes are defined by the presence of both positive and negative associations. Inherent to the definition of ambivalence is the assumption that ambivalent attitude objects trigger these opposing associations simultaneously and automatically. The current research aimed at testing the widespread simultaneity assumption in four experiments using an evaluative priming procedure. In the first three experiments ( $N_1 = 77$ ,  $N_2 = 80$ ,  $N_3 = 77$ ), all participants completed two evaluative priming paradigms, in which ambivalent stimuli served either as targets or as primes. The ambivalent targets paradigm tested the degree to which ambivalent targets entail an evaluative response conflict irrespective of prime valence. In contrast, the ambivalent primes paradigm tested the degree to which the concurrent and unintentional activation of positivity and negativity influences responding to univalent targets. Experiments 1 and 2, which differed in the specific stimulus materials used, revealed slower responses for ambivalent trials compared to congruent trials in both paradigms. By employing a long stimulus onset asynchrony ( $SOA = 450$  ms), Experiment 3 attested to the short-lived nature of the joint activation of opposite valences triggered by ambivalent primes. As expected, the deliberate categorization of ambivalent targets was not affected by this procedural variation and still resulted in slower responses in ambivalent trials as compared to congruent trials. In contrast, the formerly observed inhibitory pattern did not survive the long SOA in the ambivalent primes paradigm. Experiment 4 ( $N_4 = 77$ ) relied on a valent/neutral categorization task, which removes the conflict of opposing associations at the response level while still requiring the processing of valence. This paradigm employed ambivalent stimuli only as primes. In contrast to the previous experiments, we found no inhibition after ambivalent primes as compared to univalent primes both in the compatible and incompatible condition. This suggests that conflict resolution triggered by ambivalent stimuli occurs at response expression rather than at the exposure stage. Our findings lend original empirical support to the assumption that positivity and negativity are activated simultaneously and automatically in ambivalent attitude objects. This is especially relevant because ambivalence research often bases its interpretations on the assumption that the concurrently activated opposing associations result in a conflict that is aversive and thus encourages its resolution. We assessed whether this conflict arises at the level of mere encounter and whether participants use the univalent primes to resolve the response conflict instigated by ambivalent targets. We did not find consistent and convincing evidence for either of these assumptions. Instead, the present research suggests that ambivalence generates a conflict only if the task requires a univalent categorization. The present experiments have far-reaching implications for ambivalence research in particular and attitude research in general.

Session	<b>Attitudes</b>
Time	Tue, Sept. 4th, 9:30
Room	B

## Rearranging the Face Space, an Exploration using the Spatial Arrangement Method

Since early research stages, the study of social perception from faces has relied on ratings to map the face space (Bar, Neta & Linz, 2006; Willis & Todorov, 2006; Oosterhof & Todorov 2008). Recently, some new techniques such as reverse correlation have developed (Dotsch & Todorov, 2011). Such technique, allows the researcher to explore the face space avoiding the use of ratings, interval scales often used as ratio measures. Besides the advantage provided by this technique, it has some drawbacks such as requiring a great number of trials and the use of just one base face. The present work aims to map the face space going beyond the practical limitations of previous methods. We employed the Spatial Arrangement Method (Koch, Speckmann & Unkelbach, in preparation; Koch, Alves, Krüger & Unkelbach, 2016; Koch, Imhoff, Dotsch, Alves & Unkelbach, 2016), asking participants (N = 97) to rearrange the stimuli to be mapped according to their similarity. By using this method, we obtained a distance matrix for each participant. Such matrix provides information about the cognitive representation of the faces in the participant's mind (eg. The face space). Given the general consensus among the perception of faces on the dimensions of social perception (Todorov, Said, Engell & Oosterhof, 2008), we averaged such matrices in order to obtain a general face space dissimilarity matrix. Using the general face space dissimilarity matrix, we employed multidimensional scaling to obtain a multidimensional representation of the space where the stimuli, the faces, are mapped, the face space. We used a set of real faces validated for research purposes (Ma, Correll & Wittenbrink, 2015). Such set came with normative ratings, and we employed such scores on social perception dimension to provide convergent validity to our multidimensional solution. From this correlational analysis (N = 64), we were able to confirm that our mapping of the face space is based on the principal dimension of social perception (trust dominance), to extract secondary dimensions from our solution, and to correlate our dimensions with known characteristic of the stimuli (eg. attractiveness, threatening, babyface, etc...). Relying on the face space we mapped, we were able to group stimuli in clusters according to their dissimilarity, and to compute a density index for each stimulus operationalized as the mean distance of the stimulus from every other stimulus within the same cluster (Unkelbach, Fiedler, Bayer, Stegmüller & Danner, 2008). Therefore, the spatial arrangement method allowed us to obtain an ecologically valid mapping of the face space as well as other characteristics of the stimuli. The spatial arrangement method proved to be reliable in providing a valid mapping of the face space, opening the way to design experimental studies aimed at testing hypothesis stemming from stimulus-specific characteristics. Hence, relying on the stimuli we mapped we are currently investigating recognition memory (Alves, Unkelbach, Burghardt, Koch, Krüger & Becker, 2015). Our hypothesis is that the lower similarity of untrustworthy faces leads to higher discriminability that in turn explains the memory advantage for untrustworthy faces (Rule, Slepian & Ambady, 2012)..

### Session      **Face Perception 1**

Time            Mon, Sept. 3rd, 11:30

Room          C

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Konrad Bocian, Wiesław Baryła, Wojciech M., Kulesza, Simone Schnall, and Bogdan Wojciszke

## **Boundaries of The Mere Liking Effect: Looking for Moderators of Attitudinal Influences on Attributions of Moral Character**

Our past research showed that attitudes strongly influenced judgments of moral character. Using different manipulations well-known to induce interpersonal attitudes like similarity-dissimilarity of beliefs, mere exposure, and facial mimicry, we found the mere liking effect – that a positive attitude toward a target person increases evaluations of the target’s moral character. Today, we present the first evidence for potential moderators of the mere liking effect. In the first study (N = 120) we used computer-based mimicry paradigm to induced liking towards female confederate. Additionally, we employed classic accountability manipulation proposed by Lerner and Tetlock, (1999). Afterward, participants were asked to estimate the likelihood that confederate would engage in eight different moderately immoral acts. Although mimicry influenced liking and moral judgments, accountability did not affect the mere liking effect. Results suggest that people recognize their liking for a person as a valid and adequate basis of moral judgment. Because in Study 1 the mimicry-induced likeability was the only cue (besides the appearance of the target’s face) to judge the target’s moral character, in the second experiment (N = 180) we added morally relevant cues in the form of information on the target’s behavior. The mimicry manipulation was successful. However, participants made a judgment about target’s moral character solely on the information of her moral or immoral behavior. Presented results suggest that mere liking ceases to bias moral judgments only in the presence of morally relevant information. We will discuss these findings in the light of the self-interest bias..

Session	<b>Morality 2</b>
Time	Mon, Sept. 3rd, 14:30
Room	D

Lea Boecker

## The Effect of Social Comparisons on Emotional Reactions to Others' Fortunes and Misfortunes

In a line of six studies I investigated comparison processes in the four emotions envy, schadenfreude, "happy-for-ness", and sympathy. If the four emotions are based on comparison processes then the direction of a comparison (downward, lateral, upward) and the extent of comparative thinking should affect how people react to the fortunes and misfortunes of others. To test this, I developed a paradigm that allowed me to elicit all four emotions in a comparable way by letting participants play a fake lottery and present them with the outcomes of other ostensible players. I manipulated whether the comparison standards won (fortune) or lost money (misfortune) in the lottery and whether they 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). The participants' had to indicate how much envy, schadenfreude, happy-for-ness, or sympathy they experienced in response to the lottery outcomes of the comparison standards. In all six studies the four emotions were systematically affected by the direction of a comparison. 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. Furthermore, upward (downward) comparisons increased (decreased) the likelihood that participants experienced envy and schadenfreude instead of happy-for-ness, or sympathy (Experiment 2). A third experiment showed that participants were more envious, but not more "schadenfroh" when they had received only very little start money compared to when they had received much start money. The Experiments 3-6 showed that the intensity of emotions and the effect of comparison direction decreased in response to dissimilar comparison standards (computer programs playing the lottery; Experiment 4) and in irrelevant domains (winning and losing worthless chips; Experiment 5) for envy, sympathy, and happy-for-ness. When the participants had no reference point for the comparison (because the participants had not played the lottery themselves; Experiment 6) I also observed an effect for schadenfreude. The present work provides the first systematic evidence for comparison processes underlying envy, schadenfreude, happy-for-ness, and sympathy. The findings will stimulate theorizing about social comparison-based emotions, and have important implications for economic social preference models based on inequity aversion (e.g., Fehr & Schmidt, 1999). Because upward comparison standards' losses (wins) and downward comparison standards' wins (losses) were presumably perceived as deserved (undeserved), they elicited schadenfreude and happy-for-ness (sympathy and envy), respectively. So far, the concept of inequity aversion has not been linked to specific emotions. Furthermore, the present work validates a new paradigm that was developed to elicit all four emotions within the same context and provides several advantages over vignette approaches..

Session      **Social Emotions 1**

Time          Wed, Sept. 5th, 9:30

Room         B

Benjamin Buttlar and Eva Walther

## Measuring the Meat Paradox: How Ambivalence Towards Meat Influences Moral Disengagement

Meat eating puts humans in a moral dilemma. On the one hand, meat is detrimental for human health, the environment, and causes the suffering of non-human animals; on the other hand, it provides traditions and enjoyment to many people. Thus, it is assumed that people experience ambivalence towards meat because they like to eat meat but do not like its consequences (e.g., killing animals). This conflict is referred to as the meat paradox and it is argued that omnivores (i.e., persons eating meat) who experience the meat paradox perceive discomfort. This discomfort, consequently, has to be resolved—via moral disengagement—to maintain dietary practices. So far, however, these processes remain hypothetical because meat-related ambivalence has rarely been measured and if so only via measures of self-report. In the present investigation we aimed to examine these assumptions by using a novel ambivalence measure that allows to draw more conclusive inferences about the mechanisms underlying the meat paradox. Therefore, we recruited omnivores and non-omnivores and assessed their mouse trajectories in an evaluation task including plant-based and meat dishes. By using this evaluation task, different indicators of ambivalence—geometrical pull and reaction times—can be recorded without the constraints associated with self-report measures (e.g., social desirability). Following this, we assessed moral disengagement via questionnaires on attribution of animal emotion/mind and rationalizations of meat consumption. In accordance with recent theorizing, omnivores recorded greater pull and slower reaction times than non-omnivores towards meat but not plant-based dishes. Furthermore, a hierarchical regression analyses on attribution of animal mind/emotion—using diet and pull as predictor variables—revealed an interaction between the predictor variables. The results of a subsequent analysis of the area of significance (Johnson-Neyman technique) were consistent with the predictions made in the literature on the meat paradox: diet influenced attributions of animal emotion/mind only if experienced ambivalence exceeded a certain threshold. This moderation, however, was not solely caused by omnivores who decreased moral engagement as ambivalence increased, but also by non-omnivores who reacted to heightened ambivalence by increasing moral engagement. These findings outline how novel measures of meat-related ambivalence will help to understand how people are able to maintain omnivorous and non-omnivorous diets, even if they are conflicted between positive and negative sides of meat. In fact, we do not only confirm recent theorizing, but reveal insights that were not discussed in the literature so far. That is, conflicted non-omnivores also reduce ambivalence; however, they increase their moral engagement, presumably to be able to abstain from meat. More generally, this approach may advance theorizing on cognitive consistency—a human core motive. That is, our findings confirm the assumption that humans, indeed, bias resolutions of inconsistencies to maintain beliefs and associated actions. Because such basic knowledge about resolutions of inconsistencies may be applied to different areas of human life, our results have strong implications for other psychological fields, like health or environmental psychology (e.g., smoking, recycling). We discuss limitations of the present investigation and outline avenues for further research..

Session      **Preferences and Consumption 1**

Time          Mon, Sept. 3rd, 12:00

Room         E

Aleksandra Cichocka, Orestis Panayiotou, Marta Marchlewska, Joy Adeleye, and Natasha Alexander-Grose

### **Collective narcissism biases recall of threatening information**

The current work investigated how people process political information relevant to their ethnic in-group. Past research suggests that people show better memory for negative out-group than for negative in-group behaviours, and that this bias might be stronger among high identifiers. We suggest that the biased recall of information potentially threatening to the in-group would depend on the way people identify with their group. We predicted that such information should be re-called in a group-favouring manner especially by those who are defensively identified with the in-group. Defensive in-group identification can be captured by the concept of collective narcissism—a belief in in-group greatness that is contingent on external validation. In past research, collective narcissism was associated with increased perceptions of threat to the in-group image and hostile responses to such threats. However, less is known on how collective narcissists perceive threatening information. In two studies, we examined whether those high in collective narcissism (rather than conventional in-group identification) would recall in-group image threatening information in a biased way. In both studies we measured ethnic collective narcissism and ethnic in-group identification and asked participants to recall information from texts which included favourable information about the out-group (Study 1) or unfavourable information about the in-group (Study 2). Study 1 (N= 186) was conducted among White Britons. Participants read a text about immigration, which stated that immigrants are less likely to put pressures on the benefits system than UK nationals. High ethnic collective narcissism (but not high ethnic identification) predicted higher likelihood of mistakenly recalling that immigrants were more likely to claim benefits. Study 2 (N=176) was conducted among White Americans. Participants were asked to read a text about the violent incidents during the 2017 right-wing Unite the Right rally in Charlottesville. Those high in ethnic collective narcissism (and those low in ethnic identification) were more likely to underestimate the number of victims of the rally in the recall task. These results suggest that collective narcissism can motivate biased processing of information relevant to the in-group image..

**Session      Social Memory and Recollection**

**Time          Tue, Sept. 4th, 13:30**

**Room         C**

Rémi Courset, Dominique Muller, Juliane Degner, Marco Perugini, Marine Rougier, and Yoann Julliard

## The perception of North African people in a terrorist attack context: a Stereotype Misperception Task study

One of ISIS's strategies is to carry out multiple terrorist attacks with the aim that the inhabitants of the target countries start to confuse North African people with terrorists, and associate the perception of North African individuals with the terrorist threat (Kepel, 2016). As this strategy is known to most individuals, few openly agree with the association North African/terrorist. It remains possible, however, that this explicit evaluation (i.e., underpinned by non-automatic processes, especially conscious or controllable processes) masks the installation of this assimilation at a more implicit level (i.e., underpinned by automatic processes, especially not conscious or uncontrollable processes). Few studies have been able to observe within the same task both the non-automatic and automatic components that lead to an evaluation (e.g., Richeson & Trawalter, 2008). This is the case, however, with Multinomial Processing Tree Models (Hütter & Klauer, 2016), and particularly with the SMT task (i.e., Stereotype Misperception Task, Krieglmeyer & Sherman, 2012). This task, in which participants judge the threatening nature of a face drawing preceded by a photo of a black or white face, assesses both the level of activation and application of a stereotype (here, the association between the black faces and the threat). Applied to our context, we formulated the hypothesis that individuals exposed to a recall of terrorist attack should have a stronger activation of the stereotype linking the North African faces to a threat, but a weaker application of this stereotype, because of the willingness to not discriminate North African individuals in the context of terrorist attacks. One hundred and eleven participants took part in this study. Similarly to the Krieglmeyer and Sherman's study, participants judged faces drawings as threatening more often when they were preceded by a North African face photo compared to a white face,  $t(109) = 5.70$ ,  $p < .001$ ,  $\eta^2 = .23$ . In addition, this effect was not moderated by the recall of terrorist attacks,  $t(109) < 1$ . This moderation, however, was not theoretically predicted because the strongest activation of the stereotype "North African individuals are threatening" in a terrorist attack context could have been offset by a weaker application of this stereotype. Unfortunately, the associated multinomial processing tree model of Krieglmeyer and Sherman did not fit our data. Consequently, we could not quantify the activation and application stereotype parameters in our two conditions. We could not observe if, in the terrorist attack condition, there were a potential increase of the stereotype activation compensated by a decrease of the stereotype application. Explanations regarding the observed results, including the lack of fit of our multinomial model will be advanced. Especially, a new replication of the SMT paradigm ( $N = 53$ ), closer to the original study (i.e., not preceded by a terrorist attack priming) will be presented. This will allow us to challenge the predominance of the classical stereotype activation-dominant model (defended in the Krieglmeyer & Sherman's study). Thus, more generally, this presentation will be an opportunity to present the advantages and difficulties of multinomial models..

Session	<b>Face Perception 2</b>
Time	Mon, Sept. 3rd, 15:00
Room	C

Jonas Dalege, Denny Borsboom, Frenk van Harveld, and Han L. J. van der Maas

## **The Attitudinal Entropy (AE) Framework as a General Theory of Individual Attitudes**

In the talk I will outline the Attitudinal Entropy (AE) framework. The AE framework builds on our recently proposed Causal Attitude Network (CAN) model that conceptualizes attitudes as Ising networks of attitude elements (i.e., beliefs, feelings and behaviors vis-à-vis an attitude object). The AE framework rests on three principles. First, attitudinal inconsistency and instability represent entropy, a measure of randomness derived from thermodynamics. Second, energy of attitudinal configurations (i.e., to what extent the states of the attitude elements fit the network parameters) serves as a local processing mechanism to reduce the global entropy of an attitude network. Third, attention and thought directed at the attitude object have an analogous effect on the attitudinal representation as (inverse) temperature has on thermodynamic behavior – heightened attention and thought make attitudinal representations low in energy more likely and therefore reduce the entropy of the attitude. I will argue that many findings in the attitude literature follow from these principles and that these findings can be organized along the dimension of weak to strong attitudinal entropy reduction. First, I will focus on the low stability and consistency of scores on implicit measurements of attitudes. From the perspective of the AE framework, implicit measurements are more likely to tap attitudes in high entropy states, which implies that valid implicit measurement of attitudes is necessarily unreliable. Second, I will focus on the mere thought effect on attitude polarization and its central moderators (i.e., complexity of cognitive schema, dependency between evaluative dimensions). From the perspective of the AE framework merely thinking about an attitude object represents an initial level of attitudinal entropy reduction and I will show that both the basic mere thought effect and its moderators follow from this assumption. Third, I will focus on attitude strength. From the perspective of the AE framework strong attitudes are attitudes in low entropy states and from this assumption follows that strong attitudes are durable, impactful and behave more like categories than dimensions. Fourth, I will focus on heuristic vs. systematic processing of arguments. From the perspective of the AE framework heuristic (systematic) processing occurs under high (low) entropy and from this assumption follows that involvement determines how arguments are processed. I will conclude that the AE framework shows promise in providing a parsimonious and general theory on attitudes..

<b>Session</b>	<b>Attitudes</b>
Time	Tue, Sept. 4th, 10:00
Room	B

Ekaterina Damer, Patrick S. Forscher, Paul J. Maher, Thomas L. Webb, and Richard J. Crisp

## Can Longitudinal Exposure to Counter-stereotypes Lead to Sustained Change in Cognitive Flexibility and Explicit Bias?

A voluminous body of research argues that exposing people to others who do not conform to stereotypes causes them to think about the reasons for the counter-stereotypic characteristics, resulting in increased cognitive flexibility and creativity and reduced intergroup bias. However, past manipulations of counter-stereotypes are fairly weak, lasting only a single session, and suffer from methodological limitations because they do not control for stereotype content. Further, because most prior studies only used single-session manipulations, it is unclear whether these effects persist over time. We tested the persistence of the reported effects using a preregistered longitudinal experiment spanning 14 days ( $N = 197$  at baseline, average participation rate per time point = 78%). To this end, we developed and validated a new paradigm that can be used to study the effects of counter-stereotypes over time and that allows to control for differences in stereotype content. In addition to the confirmatory analyses testing the effects of counter-stereotypes on cognitive flexibility and explicit intergroup bias, we conducted exploratory analyses to test whether exposure to counter-stereotypes could lead to epistemic unfreezing (a psychological process characterised by curiosity and open-mindedness). Participants were randomly assigned to learn about different individuals who challenged vs. conformed to stereotypes and were exposed to (counter-)stereotypic information in multiple sessions over the course of 14 days. We found no evidence that exposure to counter-stereotypes can cause changes in cognitive flexibility and explicit intergroup bias, neither in single sessions, nor over time. However, an exploratory analysis suggests that exposure to counter-stereotypes may increase epistemic unfreezing, such that participants in the counter-stereotypical condition reported feeling more interested in and curious about the target individuals than participants in the stereotypical condition. This may indicate that people become narrowly interested in people who do not conform to stereotypes, but that this interest does not generalize to broad increases in creativity and intergroup bias. This could be due to subtyping, a process prompting participants to treat counter-stereotypic individuals as exceptions to the rule and thus preventing cognitive transfer effects. The results of this preregistered longitudinal experiment using an intensive and well-controlled counter-stereotype manipulation cast doubt on previous findings and suggest that it may be necessary to revise existing theories on psychological adaptation to counter-stereotypical diversity. Specifically, it is important to specify in more detail the relevant psychological mechanisms, boundary, and optimizing conditions, in order to better predict the effects of counter-stereotypes on affective, motivational, cognitive, and behavioral outcomes. For future research on counter-stereotypes, we recommend that researchers preregister their hypotheses, use intensive manipulations and longitudinal designs, and consider outcomes besides cognitive flexibility, creativity, and explicit bias (e.g., implicit bias, epistemic emotions)..

Session      **Stereotypes and Prejudice 2**

Time          Mon, Sept. 3rd, 16:30

Room         A

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Katharina Diel and Matthew Baldwin

## **You are funny, I like you! The diagnosticity of shared humor.**

When meeting new people, we like the ones that are similar to us. However, we often have limited information about someone we just met, so we must infer similarity from available cues. We predicted that sharing a laugh in a social interaction is one such cue that provides highly diagnostic information, and signals that two people are like minded. In an exploratory pilot study, participants were asked to rank nine preferences from an imagined stranger from those that would provide the most (to least) information about that person: humor was ranked highest, followed by politics, media, and food preferences. In the following two preregistered studies, participants rated how much they liked several food pictures (control condition), and then rated the same pictures that were converted to memes/jokes (humor condition). In the end, participants were ostensibly matched with four participants that shared humor (or food) preferences and did not share humor (or food) preferences. In a within-subjects design, participants evaluated all four persons. In Study 1, results revealed a significant Target (humor, control) × Matching (shared, unshared) interaction. Participants evaluated a person most positively when sharing the same humor (vs. food) and least positively when not sharing the same humor (vs. not sharing food) preferences. In Study 2, we replicated the effect on positive evaluation and additionally found the same interaction on perceived uniqueness (e.g. “How rare would meeting this person be?”). The expected relationship to a stranger was perceived as most unique when sharing humor preferences and least unique when not sharing humor preferences (vs. food). In the remaining three studies, we tested whether humor is perceived as a salient diagnostic cue. In Study 3, we tested how much participants expect they can infer about someone’s interests and personalities from sharing/not sharing humor/food preferences. Results revealed a main effect of humor—participants expected they could infer more from humor vs. food. Finally, in Studies 4 and 5, we compared shared humor to the selected domains from Study 1: participants indicated their preferences on 1) humor 2) food, 3) music 4) politics and answered five random questions in each domain. We then matched participants with four ostensible people that shared their preferences in each of the four domains. In Study 4, the person who matched on humor preferences was evaluated as the most positive and significantly differed from all other domains. In order to stress that humor is very diagnostic even if very little information is given, in Study 5, participants only answered a single question in each domain. We replicated the effect of Study 4 on positive evaluation, only this time, humor and political preferences scored highest and did not significantly differ. Moreover, in Study 4 and 5 inferences were highest when matching on humor and when matching on politics. In conclusion, we provide novel evidence that humor is a diagnostic cue—sharing humor (vs. other preferences) leads to more positive evaluations of strangers, and contributes to the feeling that one can infer more about that person’s interests and personality..

**Session      Impression Formation**

**Time          Wed, Sept. 5th, 11:30**

**Room         E**

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Ilona Domen, Belle Derks, Ruth van Veelen, and Daan Scheepers

## The effect of social factors on neural processing

In five EEG studies we examine the effect of social factors on neural processing. Women remain underrepresented at higher organizational levels. This can cause a threat to their social identity. How they cope with this depends on their degree of gender identification. Opposed to behavioral outcomes, we are interested in the unconscious effects of being in a minority position; does it change how we see our social environment, so early automatic perception? We performed three EEG studies to investigate how gender identification (study 1a/1b) and underrepresentation (study 2) influence the way women spontaneously distinguish between male and female faces. In study 1a and 1b we found that very early in the perceptual categorization process, while high identified men and women payed more attention to their ingroup, low identified men and women payed more attention to their outgroup. In study 2 we found that when women were equally represented we replicated the effect found in study 1. However, when women were underrepresented, high and low identified women now both payed more attention to their ingroup. So, we show that spontaneous gender categorization is affected by 1) degree of gender identification, with the same effects for women and men, and 2) underrepresentation (social identity threat). With the last effect especially for low gender identified women. People are empathic; they are capable of experiencing emotions and cognitions of others, as if they were their own. Social neuroscientists demonstrated that empathy is detectable in motor cortex activity, such that mirror-neurons activate when we watch others move, even while we sit completely still ourselves. Social categorization moderates this process, such that motor cortex activity is larger in response to ethnic ingroups relative to ethnic outgroups. The current study aimed to demonstrate the same categorization effect for gender groups. In an EEG experiment, Dutch male and female participants (N=100) watched video clips of Dutch males, Dutch females, and Arabic males, subjected to either a pain stimulus, no pain stimulus or an action performance. Implicit empathy was measured with motor cortex activity and explicit empathy via self-report. People not only monitor their own performance, but the performance of others as well. The neural mechanisms underlying this performance monitoring system are the same for our own actions as for the actions of others. Research showed that women, in a situation where they are negatively stereotyped, which causes a threat to their social identity, can react to this in different ways, based on their level of gender identification. Low gender identified women are concerned that the negative stereotype about women will reflect badly on themselves, while high gender identified women are concerned that the negative stereotype about women will be confirmed and reflect badly on the group women as a whole. We predict a greater observational feedback related negativity (oFRN) for women when they see other women versus other men make errors in a task where women are negatively stereotyped. We further predict that low and high identified women experience different types of social identity threat (group value/stereotype threat)..

Session      **Gender and Identity 2**

Time          Tue, Sept. 4th, 14:00

Room         D

Marek Drogosz, Katarzyna Hamer, Sam McFarland, Agnieszka Golińska, Lilliana Manrique Cadena,, and Magdalena Łuźniak-Piecha

### **We Are UNIQUE: Automatic Processes in Dehumanization - Faces Study**

Our studies explored semi-controlled and automatic processes of dehumanization. In the three experimental studies, Polish (N=62), Mexican (N=66) and US (N=79) participants were asked to decide if a given trait – representing one of two basic dimensions of humanity (Haslam, 2006): human nature (HN) or human uniqueness (HU) – fits to faces of different ethnicities (White, Black, Asian, Latino, Hindu). The analyses revealed significant differences in the ascription of HN and HU traits to faces representing different ethnicities on both semi-controlled and automatic (RTs) level. The main results show that in all three countries HU traits were ascribed fastest to faces of ingroup members. We observed similar semi-controlled and automatic processes in perception of faces of ethnic outgroup members in cross-cultural context. We suggest that those processes may be a base of prejudice and dehumanization.

Session      **Gender and Identity 2**

Time          Tue, Sept. 4th, 14:30

Room         D

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Julia Charlotte Eberlen and Olivier Klein

## **Generalizing stereotypes: Comparing statistical learning and classical conditioning as underlying mechanisms of stereotype learning**

Stereotypes are often used to navigate the social world and function as heuristics about social groups. They are commonly used to make predictions about behavior or characteristics of in- or out-group members. The presence and use of stereotypes in our society is often attributed to motivational processes, and then arguably reinforced by a biased perception of social groups. However, we argue that simple learning principles might be sufficient to induce at least part of the process of stereotype learning. In the present study, we compare two well-established frameworks for learning under minimal conditions. The first framework is statistical learning, most commonly used in the field of language acquisition, the second is classical conditioning, well-known in the form of evaluative (cue) conditioning in social cognition. Both of these frameworks are based on the idea of contingencies between stimuli, in our case members of two social groups, and their more or less stereotypical description. While these frameworks lead to identical learning predictions for the experimental groups presented with (non-) stereotypical traits, their predictions differ for a “similar-but-new” third group not previously presented. From the perspective of statistical learning, we expect a random a judgment of stereotype for this new group. The stereotype learning as classical conditioning framework would predict that a low contingency between social group and stereotype would lead to a generalization of this stereotype to the third group. Our results (N=175) show that stereotypes can be learned from the statistical contingency between stereotype-consistent descriptions and group-defining visual features. In addition, non-stereotypical traits presented with a lower group-specific contingency seem to generalize to a third group, previously not present in the experiment. However, this last result is less clear-cut (i.e. no linear increase with decreasing contingency) than predicted. The experiment conducted supports the hypothesis that statistical contingencies can be sufficient to induce stereotype learning, even in the absence of higher-order (motivational) factors. In addition, the results of generalization to a third group are in line with the predictions of classical/evaluative conditioning, which attributes a predictive value to the (non-) stereotypical trait. As this predictive value diminishes with lower contingencies, it is generalized to a group which is visually similar but not identical with the experimental groups. The statistical learning framework does not provide any specific hypothesis for this scenario, which indicates that at this point, the conditioning framework is better adapted to explain basic learning processes of stereotypes. Provided future studies confirm this finding, it could be used to increase the effectiveness of efforts dedicated to decreasing negative stereotypes of marginalized groups..

**Session        Stereotypes and Prejudice 4**

**Time            Tue, Sept. 4th, 14:00**

**Room            A**

## **Goal-Directed Allostasis: The Unique Challenge of Keeping Things as They Are and Strategies to Overcome It**

Throughout life, we constantly pursue the things that we do not have. We may seek love, possessions, or success, and (luckily) we occasionally attain what we desire. However, what happens once our wishes are fulfilled? Oftentimes, if we do not invest in the routine (and sometimes Sisyphean) endeavor to maintain the things we have gained, we are bound to lose them. In the current manuscript, we introduce the construct of Goal-Directed Allostasis (GDA), referring to the mental process that underlies individuals' attempts to maintain a current state of affairs. When discussing Goal-Directed Allostasis, we focus on humans' ability to rely on higher-order cognition and the capacity for reasoning and deliberation in order to intentionality achieve stasis, namely, to maintain the 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 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). Differently put—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. As we discuss in the paper, this distinction between GDP and GDA is highly consequential. Given the prevalence of goal-directed behavior aimed at stasis, one could expect that the (potentially important) 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. We 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. We discuss the unique cognitive and motivational challenges that arise from GDA, and suggest strategies to overcome these challenges. Finally, we outline how acknowledging the distinction between GDA and GDP might contribute to the study and treatment of mental illness..

**Session      Self-Regulation and Mental Effort 2**

**Time          Wed, Sept. 5th, 12:00**

**Room         D**

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Martin Egger, Arnd Florack, and Ronald Hübner

## How selective attention shapes preferences

In four experiments, we examined whether preceding selective attention and inattention affect subsequent product choice by a) directing attention during choice, b) priming a selection response, and c) increasing perceptual fluency during the perception of the choice options. We examined the first two mechanisms in two eye tracking experiments and the third mechanism in two further experiments in which we measured perceived fluency and participants' speed and accuracy in recognizing previously presented products. In Experiment 1, we found that selective attention increased the likelihood to prefer a product in a subsequent choice task. Because this effect occurred when participants chose preferred products as well as when they chose not preferred products, the priming of a selection response cannot explain the observed effects. Moreover, the eye tracking analysis did not provide evidence for effects of preceding attention on subsequent attention to the choice options. In Experiment 2, we replicated the results of Experiment 1 and showed that, indeed, the competition between target and distractor stimuli and not the actual dwell time on the stimuli is important to produce effects in a preference choice task. In Experiment 3, we found that selective attention affected perceived fluency on target and distractor products in a task that followed another task which required selective attention on target products being in competition with distractor products. In Experiment 4, participants recognized target products from a preceding task more often and faster compared to distractor products from a preceding task. While previous research has disregarded perceived fluency as a mechanism that could contribute to effects of selective attention on choice, the present studies suggest that selective attention may alter preferences in choice by increasing perceived fluency.

Session      **Preferences and Consumption 2**

Time          Mon, Sept. 3rd, Sept. 3rd, 15:00

Room         E

Aviv Emanuel

## **Mental and Physical Effort, is it the same thing?**

I used two paradigms to study allocation of mental effort in the course of a task: (1) A computer game in which participants navigate a spaceship and receive points for shooting asteroids. I used the number of shot attempts as a measure of effort (Studies 1 and 2, N = 164). (2) A simple reaction-time task in which participants responded as fast and as accurately as they could to stimuli on the screen. I used number of accurate responses per second as a measure of effort (Study 3, N = 55). In both paradigms, I examined tasks' length (manipulated within-subjects in all three studies) as a moderator of the stuck-in-the-middle effect, which is the tendency to invest much effort in the start and towards the end of the task and reduce effort in the middle. Results showed that only longer tasks, but not short-term tasks give rise to the stuck-in-the-middle effect. In short-term tasks high level of effort was maintained through the task. This pattern of results supports the view that the stuck-in-the-middle effect reflects strategic allocation of effort whereby only when maintaining maximum effort is (or is judged to be) infeasible, effort is increased when it is perceived to be most effective. I discuss the similarity of the obtained results with patterns of effort allocation in sports, where the stuck-in-the-middle effect also obtains in longer efforts but not in shorter ones..

Session      **Self-Regulation and Mental Effort 2**

Time          Wed, Sept. 5th, 11:00

Room         D

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Thorsten Michael Erle, Janna Katrin Ruessmann, and Sascha Topolinski

## The effects of visuo-spatial perspective-taking on trust

Trust is a universally admired quality in private and professional interpersonal relations and is defined as the willingness of a “trustor” to be vulnerable to a “trustee” based on the expectation that the trustee will perform an action that is important to the trustor. An important question is how trust can be fostered. On the one hand, this can happen incidentally via features that are objectively uninformative about a person’s trustworthiness, such as likability, attractiveness, or similarity. On the other hand, trust can be increased via objectively verifiable sources. For instance, if a trustee repeatedly fulfills a trustor’s expectation, trust is strengthened. The present studies target the effects of perspective-taking on trust. Although based on previous findings it is likely that perspective-taking affects trust both incidentally and via objective information, this relation has not been studied experimentally yet. Concerning incidental trust, research has shown that perspective-taking increases the likability of another person. As mentioned above, liking can incidentally affect trust and hence we expected that perspective-taking would increase trust mediated by increased liking. Concerning objective trust information, research has shown that perspective-taking increases the incorporation of foreign thoughts into one’s own thinking. In cases where a potential trustee is framed as untrusting and the trustor engages in perspective-taking, these thoughts will be adopted more strongly and hence, less trust will arise compared to when the trustor does not engage in perspective-taking. Conversely, if in the same situation the trustee is framed as trusting, trust should be increased after perspective-taking compared to no perspective-taking. These two predictions were tested in three experiments using a visuo-spatial manipulation of perspective-taking. In all experiments, participants viewed a person sitting at a table with two objects and either had to grab one object from their egocentric perspective or from the perspective of the other person. This simple manipulation of perspective-taking was always followed by a measure of trust. In Experiment 1, we measured self-reported trust, which we expected to be higher for visuo-spatial perspective-taking trials than for egocentric trials. The results confirmed the hypothesis. In Experiment 2, we replicated this effect using a behavioral measure of trust instead of a self-report and additionally tested the above-proposed mediation by assessing sympathy for the target person. Indeed, perspective-taking increased both sympathy and trust compared to egocentric trials, and the effect on behavioral trust was mediated by sympathy. In Experiment 3, we orthogonally manipulated objective trust information about the target persons by showing participants how (un-)trustworthy the targets behaved in the past. We expected that compared to egocentric trials, perspective-taking would enhance the impact of this information on trust (as elaborated above), but this hypothesis could not be confirmed. Instead, the mediation from Experiment 2 was replicated independently of objective trust information. Thus, our experiments could only corroborate the first proposed mechanism and it seems that perspective-taking only incidentally affects trust, but does not lead to a stronger incorporation of objective trust information into one’s thinking, which consequently enhances or reduces trust..

Session      **Social Emotions 3**

Time          Wed, Sept. 5th, 15:00

Room         B

## Contextual Moderation of Stereotype-Related Decision-Making

Despite there having been an extensive amount of research on stereotyping, surprisingly, the underlying cognitive mechanisms through which stereotypic bias arises to remain largely unknown. Previous research has mainly focused on the automaticity of stereotype activation and its negative consequences for perceivers. Pertinent to the current inquiry, the effect of contextual information on the activation of stereotypes has not yet received much attention either, thereby overlooking an important aspect of how stereotypes influence cognition and behaviour in everyday life. In accordance with the predictive coding framework, one should expect contextual factors to generate predictions about whom we might encounter in different social situations (e.g., expecting a male mechanic rather than a female mechanic when stepping into an auto-repair shop). Therefore, the present experiments investigated not only whether stereotype activation is influenced by contextual information, but also the underlying mechanisms through which these effects arise. This was achieved by submitting the data to a hierarchical drift diffusion model (HDDM) analysis. Across two experiments, participants were asked to make stereotypic judgments in a standard person-classification task. In Experiment 1, the participants were shown male-stereotypic or female-stereotypic contexts (i.e., construction site or flower shop, respectively) followed by a target face (male or female) and were instructed to indicate whether the presented context-face pairings were stereotype-consistent or stereotype-inconsistent based on prevailing societal beliefs. Experiment 2 was identical to Experiment 1, except that different contexts were employed (i.e., auto repair shop and make-up shop) in order to investigate the generalizability of contextual effects on stereotype-based person construal. Furthermore, the gender-typicality of the faces was also manipulated in Experiment 2. Specifically, the faces varied in masculinity/femininity. The results from both experiments showed that stereotype-consistent pairings were identified more rapidly than stereotype-inconsistent pairings. Experiment 2 further demonstrated that highly typical faces elicited faster response times compared to less typical faces. The HDDM analysis revealed that contextual information influenced person perception through a combination of stimulus and response biases. Specifically, participants required less evidence to identify stereotype-consistent targets compared to stereotype-inconsistent targets, while evidence was accumulated most rapidly for stereotype-inconsistent individuals (i.e., counter-stereotypes were processed more efficiently). Consistent with the tenets of the predictive coding framework, the present results suggest that: (1) person construal favours expectancy-confirming targets; and (ii) expectancy-disconfirming targets (i.e., prediction errors) are processed most efficiently. These findings yield important theoretical insights into both when and how stereotypes bias person construal..

### Session      **Stereotypes and Prejudice 1**

Time            Mon, Sept. 3rd, 14:30

Room          A

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Marie-Pierre Fayant, Ivane Nuel, and Theodore Alexopoulos

## The idiosyncrasy of approach effect on the self

When interacting with others, one displays various verbal and non-verbal behaviors (Word, Zanna, & Cooper, 1974). At the most fundamental level, interpersonal physical behaviors can be categorized as either approach or avoidance responses to the interacting person. At a functional level, approach and avoidance consist in decreasing versus increasing, respectively, the distance between the self and the attitude object. Conceptualized as antagonist forces of behavior organization, approach and avoidance are often pitted against each other in the topography of behaviors. Theoretical accounts and neuropsychological data though argue for approach and avoidance as opposite and relatively independent entities (Carver, 1996; Gable, 2006; Gray, 1987; Ito & Cacioppo, 1999; Miller, 1951). In this talk, we aim to single out the unique effect that approach behaviors have on self-processes. Several works showed that approach behavior lead self-assimilative effect (the current self-representation is positively related to the cognitive, evaluative and/or behavioral implications of a feature of the social context, Fayant, Muller, Nurra, Alexopoulos, & Palluel-Germain, 2011; Nussonson, Seibt, Häfner, & Strack, 2010; Phills, Kawakami, Tabi, Nadolny, & Inzlicht, 2011). However, previous research did not provide a stringent test of the unique effects of approach behaviors largely because of operationalizations that could threaten internal or construct validity inference. To examine the idiosyncratic effects of approach behaviors, we adapted the Manikin Task (Krieglmeyer, Deutsch, De Houwer, & De Raedt, 2010) to meet the requirements for a suitable methodology and properly test the specific effect of approach behaviors. In this task, each trial consists to the simultaneous presentation of a stimulus and a stick-figure representing participants. Participant's response to the stimulus leads the figure to move toward or away from it. In this task, participants preform symbolic approach-avoidance behaviors. In our adapted version of the Manikin Task participants had to categorize nouns and adjectives and as a result of this word categorization the manikin either perform an approach or a control behavior in relation to the centrally presented stimulus. Such a paradigm was created to deal with inferences and interpretational possible issues. Relying on this paradigm, participants performed either approach or control movement in response to positive or negative social information. In Experiment 1, (N = 217), we assessed self-evaluation with a decision lexical task and self-report. In Experiment 2 (N = 226), we assessed self-evaluation on a positive and a negative single category IAT and the size of the signature and the thermometer measure. Results of these two experiments and a mini-meta-analysis show that approach compared to a proper control condition increases the self-assimilative effect on implicit measures but not explicit ones. We will discuss the potential added value for the field of this adapted paradigm..

Session      **Approach - Avoidance 2**

Time          Mon, Sept. 3rd, 14:00

Room         B

## **The curious case of asymmetric social categorization: High- but not low-agentic social groups are categorized in the “Who said what?”-Paradigm**

Is social categorization always symmetrical? It is well conceivable that someone who categorizes Jenny and Sue as women should also categorize Ben and John as men. Moreover, under the grouping definition of categorization (Klapper et al., 2017), a metacontrast principle should lead to an interdependence of categorization strength of two opposing categories: Perceiving women as more similar to each other should also increase each woman's net distance/dissimilarity from any man, thus increasing men's dissimilarity from any woman, and thus categorization strength. The “Who said what?”-Paradigm (WSW) is a measure of categorization strength. In line with this argumentation, published WSW data unanimously reports symmetrical categorization. This is why we were puzzled to detect a robust asymmetrical categorization pattern in our data. In their ABC model of stereotypes, Koch, Imhoff et al. (2016) introduced three new stereotype dimensions: A – Agency, B – Belief, and C – Communion. If these dimensions are really as fundamental as claimed, people should categorize along them in the WSW task. While they strongly categorize highly agentic occupational groups (Study 1: N=100) and social groups (Study 2: N=99), however, categorization is significantly smaller for the respective low-agentic groups. How does this pattern emerge? In study 3 (N=150), we investigate whether trustworthiness is the intermediary mechanism: At the far ends of stereotype dimension A, members of social groups are perceived as less trustworthy, while at the center, the most trustworthy groups are located. Results are discussed with respect to the phenomenon of categorization..

Session      **Indirect Measures 2**

Time          Wed, Sept. 5th, 12:00

Room         C

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Friederike Funk

## **Social cognitive mechanisms of perceiving remorse**

Remorse is a key variable to understand post-conflict cooperation and trust. Perceiving remorse in transgressors results in positive evaluations of transgressors and decreases people's desire to punish. Looking backward, remorse restores the balance by signaling that now transgressors, too, suffer and feel bad. Looking forward, remorseful transgressors appear less likely to reoffend. Much is known about these interpersonal effects -- such that the remorse-leniency effect is even integrated into the legal codes of many countries--, yet little is known about the intrapersonal mechanisms of perceived remorse. In this talk, I will discuss the role of social cognitive processes that remorse activates in a perceiver. Perceived remorse has been linked to empathy with a transgressor in the context of close relationships (e.g. after a partner has cheated, see Davis & Gold, 2011), for instance. But does this link generalize to other contexts, and is it a causal link? What are the other factors that might explain the benevolent interpersonal effects of perceived remorse? I will discuss open research questions and present possible ways how to empirically address them..

Session      **Social Emotions 1**

Time          Wed, Sept. 5th, 10:00

Room         B

Margarida V. Garrido, Sandra Godinho, and Gün Semin

### **Embodied Social Cognition: The influence of consonant wanderings in judgments of warmth and competence.**

In five studies (N = 638) we extended the in-out effect to person perception, examining the influence of oral approach-avoidance movements activated by word articulation, on preference, sociability and competence judgments of mock online usernames. Users with inward (vs. outward) usernames were always preferred and judged as warmer but as equally competent. The differential impact of the in-out effect in the core dimensions of social perception suggests that the phenomena relies on an affective mechanism of approach-avoidance that is only relevant for judgments of the warmth dimension. The present research provides further support for the link between the activation of oral muscles and impression formation, emphasizing the relevance of the in-out effect for the person perception domain with potential applications to online communication..

Session      **Approach - Avoidance 2**

Time          Mon, Sept. 3rd, 15:00

Room         B

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Felix Johannes Götz, Anne Böckler, and Andreas B. Eder

## Effects of observed head orientation on numerical cognition

The present research shows effects of observed vertical head orientation of another person on numerical cognition in the observer. Participants saw portrait-like photographs of persons from a frontal view with gaze being directed at the camera and head being tilted up or down (vs. not tilted). The photograph appeared immediately before each trial in different numerical cognition tasks. In Experiment 1, participants produced smaller numbers in a Random Number Generation (RNG) task after having viewed persons with a down-tilted head orientation relative to up-tilted and non-tilted head orientations. In Experiment 2, numerical estimates in an anchoring-like trivia question task were smaller following presentations of persons with a down-tilted head orientation relative to a non-tilted head orientation. In Experiment 3, a response key that was associated with larger numbers in a numerical magnitude task was pressed less frequently in a randomly intermixed free choice task when the photograph showed a person with a down-tilted relative to an up-tilted head orientation. These findings show that social displays can consistently influence numerical cognition across a variety of task settings..

Session      **Approach - Avoidance 2**

Time          Mon, Sept. 3rd, 14:30

Room         B

## **The Act of Eating in Food Advertising: How the Depiction of Models in Different Phases of Consumption Affects Consumers' Desire to Eat**

In print advertising, the use of static pictures depicting models eating food is common practice. However, less is known about how the depiction of models in different phases of consumption (holding a product, just before consumption, during consumption, after consumption) in such static images affects consumers. Theories have proposed that not only do individuals mimic behavior but they also adopt goals and motivational strength by observing others (Aarts, Gollwitzer, & Hassin, 2004). Furthermore, research has shown that individuals who observe the act of consumption can adopt eating goals observed from the model depending on whether the eating goal has already been completed (the act of eating ended) or not (the act of eating continued) (Tu & Fishbach, 2015; Zhou, Shapiro & Wansink, 2017). Thus, we hypothesized that consumers' desire to eat a food product and their actual consumption of a food product would be greater when the model in an advertisement was close to consumption (in the process of consuming) and would be reduced when the model was shown after consumption (consumption sequence that ends in completion). Moreover, we also expected the desire to consume to increase as the proximity to the consumption goal increases. We tested our hypotheses in two studies in which we presented consumers with pictures of models consuming food in different phases of consumption. In Study 1 (N = 88, within-subject design) we assessed participants' desire to consume the food and the degree to which participants were able to imagine the taste, smell, and consistency of the food (mental simulation). In Study 2 (N = 273, between-subject design), we measured how much participants actually consumed of the depicted food. We found that the participants experienced an increased desire to eat the depicted food and greater mental simulation (Study 1) and ate more of the depicted food (Study 2) when the model was shown in the process of eating food compared with when the model was shown after consumption. In addition, the results of Study 1 suggest that even subtle differences such as holding food compared with putting food into the mouth might affect consumers' desire to eat (and mental simulation), providing a first hint that consumers' self-reported desire to engage in food consumption after being exposed to a consumption-related image follows the typically observed gradient of goal activation. Our findings contribute to research on goal contagion (Aarts et al., 2004) and vicarious goal satiation (McCulloch, Fitzsimons, Chua, & Albarracín, 2011; Zhou et al., 2017), by testing the notion of a goal-stage contagion; that is, the observer's projection of others' stages of goal pursuit on the self after being exposed to static images of consumption. Finally, they provide implications for the possible effects of consumption-related images in advertising, which are usually static portraits of a very specific extract from the process of completing the eating goal.

**Session        Preferences and Consumption 1**

**Time            Mon, Sept. 3rd, 11:30**

**Room          E**

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Adam Hahn and Bertram Gawronski

## **It Matters to Understand What Precisely is Reflected in Implicit Bias Scores is to Design Effective Interventions**

Existing models of implicit evaluations as attitudes people are “unable or unwilling to report” suggest that acknowledgement of biases reflected in implicit evaluations is best achieved either by telling participants about their biases because they are unaware of them, or by making them admit to biases because they are normally unwilling to report on them. Based on a conceptualization of implicit evaluations as spontaneous affective reactions (Gawronski & Bodenhausen, 2006; Hahn, Judd, Hirsh, & Blair, 2014), we instead hypothesized that the most effective method to provoke acknowledgement of bias should be paying attention to one’s spontaneous affective reactions towards concrete stimuli of social groups. Six studies showed that participants who predicted their reactions on future IATs (1) incorporated the cognitions reflected in implicit evaluations more into their explicit evaluation, which entailed reporting more biased evaluations in samples of North-American and European university students (Studies 1-3); and (2) increased self-assessment of being racially biased in Mturk participants (Studies 4-6). Completing IATs did not show any effects in any study. Giving people feedback on IATs did not lead to increased implicit-explicit alignment, but it also led to increased self-assessment of being racially biased. Study 5 demonstrated that the effects of predicting IAT scores on acknowledgement of bias were moderated by levels of egalitarianism. A last study showed that paying attention to affective reactions to pictures of racial groups, even without announcement of a test, suffices to produce acknowledgement of bias. Together, these studies suggest that a precise theoretical conceptualization of implicit social cognition may help design effective interventions..

Session      **Indirect Measures 1**

Time          Wed, Sept. 5th, 9:00

Room         C

Chris Harris, Ruud Custers and Klaus Fiedler

## **The Formation of Erroneous Action-Outcome Representations**

While many erroneous action-outcome beliefs quickly die out due to insufficient evidence in the environment, some such beliefs persist or even increase in their strength (e.g. superstitions). The present research investigates boundary conditions to how erroneous action-outcome beliefs are formed and upheld. In a two-armed foraging task, we investigate the influence of different types of initial evidence in reward-rich and reward-impooverished environments. In three studies, participants encounter initial evidence, sample extensively and with free choice between the arms, and then give final estimates regarding their preference and the assumed outcome probabilities. In reward-rich environments, participants uphold the bias induced by the initial evidence in their final preference estimates, while in reward-impooverished environments, participants tend to become unbiased. Initial evidence seems to influence preference in reward-rich environments despite the sampling process only being biased when the initial evidence contains a strong contingency (Study 1) but not when the initial evidence consists of a skewed sample with no contingency (Study 2 and 3). The findings stress the influence of initial evidence on subsequent beliefs..

Session      **Erroneous Beliefs and Conspiracies 1**

Time          Tue, Sept. 4th, 9:30

Room         E

Max Hennig and Mandy Hütter

## The Psychological Foundations of Moral Dilemma Judgments – Revisiting Common Confounds and Functional Hypotheses

Much research on moral judgment has been inspired by hypothetical sacrificial dilemmas, the application of which has been firmly established in the psychological literature. In these dilemmas, participants who approve of the killing of one person in order to save the lives of several others are usually said to have made a utilitarian judgment, while it is likewise implied that those who reject the killing are motivated by adherence to deontology. Those two ethical systems prioritize the impartial maximization of beneficial consequences regardless of absolute norms, and the absolutist adherence to norms regardless of tangible consequences, respectively. We maintain that results obtained with the conventional paradigm lack the interpretational clarity commonly attributed to them for three reasons. First, the conventional approach only employs scenarios in which sensitivity to norms and consequences should motivate divergent responses. As such, sensitivity to both features is conflated in the same outcome measure, which renders causal interpretations unwarranted. Second, canonically used stimuli systematically conflate norm-adherence with inertia and norm-breaking with change, which provides further alternative explanations for choosing judgments consistent with norm-adherence and maximization of beneficial consequences, respectively. Third, in many canonically used stimuli the life of the judge is at stake as well. Therefore, norm-breaking is systematically incentivized and can be adequately explained by egoism. We addressed these points of critique in a series of five experiments with the application of multinomial processing tree (MPT) modeling, demonstrating the validity of our general model in Experiment 1 (N = 96). Experiment Series 2 demonstrates that egoistic incentives for norm-breaking (Experiment 2a, N = 96) and for rejection of consequences (Experiment 2b, N = 96) can selectively influence norm-focused and consequence-focused responding, respectively. We thereby systematically model the impact of egoistic incentives identifiable in popular, canonical stimuli, and demonstrate their capacity to bias results if not taken into account. Experiment Series 3 applied the advantages of MPT modeling to investigate the hitherto untested functional hypotheses underlying the effects of three moderator variables, which were derived from the influential dual-process model of moral judgment (DPM). Specifically, it was proposed that death-avoidability influences sensitivity to consequences, while egoistic incentives and personal involvement influence sensitivity to norms. Experiments 3a (N = 692) and 3b (N = 577) found no support for these hypotheses. Especially, personal involvement did not exert consistent effects on norms. This is particularly noteworthy, given that an effect of personal involvement is consistently found in the context of the conventional paradigm, and its reliance on norm-adherence due to a supposed increase in System 1 processing is widely agreed upon in the literature. This suggests that, while an influence of personal involvement on endorsement of sacrifices in canonical dilemmas is well documented, the precise working mechanism underlying this effect may be harder to pin down than commonly assumed. While Experiment Series 3 replicates much of the general pattern of results demonstrated with the conventional paradigm, our findings do not support the proposed functional hypotheses, and furthermore call one proposed working mechanism of the DPM into question..

Session      **Morality 1**

Time          Mon, Sept. 3rd, 11:00

Room         D

## **Simultaneous stimulus presentation in subliminal evaluative conditioning experiments**

Evaluative Conditioning (EC) is defined as a change in liking of a target object (conditioned stimulus, CS) that is due to the pairing of the CS with a negative or positive stimulus (unconditioned stimulus, US; De Houwer, 2007). Evaluative Conditioning is proposed as a mechanism of automatic preferences acquisition in dual-process theories of attitudes (Gawronski & Bodenhausen, 2006). Support for the automaticity of EC comes from studies showing EC effects for subliminally presented stimuli (e.g., Rydell, McConnell, Mackie, & Strain, 2006; Dijksterhuis, 2004). However, the findings of previous studies showing subliminal EC, have recently been challenged on methodological grounds (Sweldens, Corneille, & Yzerbyt, 2014) and by empirical findings (Stahl, Haaf, & Corneille, 2016; Heycke, Gehrman, Haaf, & Stahl, 2018). One possibly important aspect of the presentation schedule, that previously had been largely ignored in the research on subliminal EC, is the order of the CS-US presentation. While many of the (failed and successful) subliminal EC studies used a sequential presentation schedule (i.e., the US followed by the CS or vice versa), recent studies indicated that a simultaneous CS-US presentation might be necessary for automatic EC effects (Hütter & Sweldens, 2013). In a series of three experiments we investigated subliminal EC effects using a simultaneous presentation of CS and US. Importantly, we hypothesized that a cross-modal paradigm, presenting the CS visually and an auditory US, would result in a simultaneous perception of the CS-US pair. Across the studies we varied (1) the CSs (i.e., cars, PokeMon, Sept. 3rd, cartoon figures), (2) the USs (i.e., positive/negative or harmonic/disharmonic sounds), and (3) the onset of the USs (i.e., simultaneous onset or US onset slightly before CS presentation). We found clear indications for the absence of EC effects when the stimuli were presented truly subliminally but found EC effects when stimuli were presented for 1000 ms or when briefly presented stimuli were identified above chance. These findings might have important implications for theories describing EC through automatic processes, which will be discussed..

Session	<b>Evaluative Learning</b>
Time	Mon, Sept. 3rd, 16:30
Room	C

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Anat Hoss and Yoav Bar-Anan

## **Non-evaluative associations in the IAT**

The evaluative Implicit Association Test (IAT) is widely used to measure automatic preference between groups. However, previous research found that the IAT does not only reflect an association between the groups and evaluation, but also between each group and victimhood versus privilege. In the IAT, people show automatic preference for a group they perceive privileged over a group they consider oppressed. In my research, I will test two possible implications of these findings. Study 1 (N = 300) will test the possibility that the typical evaluative IAT would become a stronger predictor of self-reported preference when controlling for associations with victimhood and privilege. If that is the case, then the relation between automatic and deliberate preference might be stronger than previously thought. To test this possible implication, participants will complete a standard evaluative IAT (good/bad, Black people/White people) and oppression IAT (privileged/oppressed, Black people/White people) and self-reported preference. I will test whether the evaluative IAT will have a stronger relation with self-reported preference, after controlling for the oppression IAT. In Study 2 (N = 600), I will examine whether the previous findings reflect an effect of perceptions pertaining to victimhood and privilege on automatic preference (people automatically evaluate oppressed groups more negatively than privileged groups), or only on the IAT (a methodological artifact). Participants will learn about an oppressed group and a privileged group. To replicate previous results, I will examine whether in the standard evaluative IAT, people would show preference for the privileged group over the oppressed group. To examine whether this is a methodological artifact of the IAT measure or a genuine effect on automatic evaluation, participants will also complete three other supposed measures of automatic evaluation: evaluative priming, the affect misattribution procedure, and speeded rating. If the other measures would find preference for the privileged over the oppressed, the results would be compatible with the possibility that people automatically prefer the privileged over the oppressed. If the other measures would not show that preference, the results would be compatible with the possibility that the IAT is sensitive to factors rather different than automatic evaluation. As a whole, my research would help to understand whether previous findings showed the automatic evaluation is sensitive to associations with valence that is valid evidence for evaluation (people do not think that victimhood is a valid reason for negative evaluation), or showed that the IAT has a serious flaw as a measurement of automatic evaluation..

**Session      Indirect Measures 1**

**Time          Wed, Sept. 5th, 9:30**

**Room         C**

## **An experimental approach to investigating the effects of approach and avoidance connotations of colors on the perceived attractiveness of the wearer**

The idea that the color red leads people to view others as more attractive and more sexually desirable has become more and more en vogue in academia. In accordance with this notion, research in the last decade has shown that men rate women as more attractive when they wear red or are presented in a red context. Importantly, this seems to be the case even after controlling for effects that red clothing has on the wearer. This increase in attractiveness of females wearing red has been linked to perceived fertility and sexual intent. Interestingly, the attractiveness of men also seems to be bolstered by the color red, but for different reasons. It has been argued that for male targets red effects are mediated by perceptions of high status and wealth as well as competitive dominance. While in the mating context, the color red seems to signal attractiveness, in other contexts red is assumed to be linked with danger, prohibition, and the need for vigilance. This research discipline has traditionally favored evolutionary explanations of these findings. We argue that the effects of red on rated attractiveness may be explained parsimoniously by its approach and avoidance connotations and that these connotations are acquired in the course of socialization. We argue that avoidance leads to higher perceived attractiveness only if the target person signals avoidance to the subject. In contrast, if the subject perceives her own behavior as avoidant, she will perceive the target as less attractive. In the present research, we test this assumption experimentally for the first time. Specifically, we linked colors to approach and avoidance connotations using either a passive semantic conditioning paradigm (Exp. 1: N = 64, Exp. 2, N = 120) or an active approach-avoidance training (Exp. 3: N = 123, Exp. 4: N = 222). We then assessed the effect of the conditioned connotations on attractiveness ratings of portrayed male and female individuals. The results of the passive semantic conditioning paradigm suggest that avoidance connotations in colors boost the attractiveness of people wearing those colors. As indicated by the approach-avoidance training task, if the color connotation reflects individuals' own behavior, wearing a certain color makes people appear more attractive when this color is associated with approach rather than avoidance. The results of the present studies are in line with our reasoning. First, colors can acquire approach and avoidance connotations via social learning procedures. Second, the effects of these connotations on attractiveness ratings depend on whether the activated connotations are attributed to the self (i.e., the judge) or to the target displaying the respective color. If avoidance connotations are attributed to the self, the attractiveness of the target will decrease. In contrast, if avoidance connotations are ascribed to the target, the target will be judged as being more attractive. Our results contribute to an increasing understanding of the psychological foundations of attractiveness.

**Session      Approach Avoidance 1**

**Time          Mon, Sept. 3rd, 11:30**

**Room         B**

Eric R. Igou

## Picturing Boredom

Boredom is a negative affective state and strongly associated with perceived meaninglessness (e.g., Van Tilburg & Igou, 2012, 2017). The current studies tested the effects of visual cues on perceptions of boredom and meaning. Specifically, we investigated in two studies the impact of ‘nature’ cues on perceived boredom and meaninglessness. Based on the notion that exposure to nature and natural stimuli can have beneficial effects on well-being, we explore whether and how experiencing natural environments could reduce boredom and thus prevent its negative consequences. We proposed and tested three hypotheses. (H1) Visual displays of nature (vs. artificial environments) alleviate boredom. (H2) Nature displays alleviate boredom partly due to the perceived high brightness, color saturation, and color contrast typically found in nature displays. (H3) By reducing boredom, nature displays indirectly contribute to perceived meaning in life. In Experiment 1, 108 participants (on MTurk) were randomly assigned to two conditions of a between-subjects design: They viewed either nature or artificial displays. Participants in the nature condition were shown (in random order) 10 pictures of nature (e.g., poppy field, forest, beach). Each picture was displayed for 5 seconds. Participants in the artificial display condition instead saw 10 artificial environments (e.g., townhouses, interchange, port). Participants then indicated on 7-point Likert scales how bright, saturated, and contrasting the colors in these displays were (“These pictures were bright”, “These pictures featured contrasting colors”, “These pictures featured saturated (‘deep’ or ‘pure’) colors”, respectively. Participants then reported how bored they felt (“I feel bored”) and completed the 5-item presence of meaning in life questionnaire (Steger, Frazier, Oishi, & Kaler, 2006). Nature displays reduced boredom relative to the artificial displays—an effect that was mediated by the perceived higher brightness, saturation, and contrast within nature displays. Furthermore, by reducing boredom, nature displays indirectly contributed to perceived meaning in life. It could be that besides these color characteristics there are other reasons why people find artificial displays more boring (e.g., familiarity), and some of these variables may be spuriously correlated with perceived brightness, saturation, and contrast. Therefore, it was important to experimentally manipulate the mediators (brightness, saturation, & contrast) to establish the causal impact of these factors on boredom. In Experiment 2, we thus adopted a mixed design using 131 participants (MTurk), experimentally increasing and decreasing the brightness, saturation, and contrast of nature and artificial displays. We replicated and extended these results by showing that enhancing artificial displays with higher levels of brightness had functionally similar effects as ‘nature’ cues, strongly suggesting that ‘nature’ cue effects of boredom result from brightness levels inherent in many of these cues. The results of nature cure and other visual cues on perceptions of boredom and meaning will be discussed.

Session	<b>Social Emotions 2</b>
Time	Tue, Sept. 5th, 12:00
Room	B

## A Sampling Approach to Evaluative Conditioning

In evaluative conditioning (EC), a conditioned stimulus (CS) is paired with a positive or negative unconditioned stimulus (US) and consequently acquires US valence. In most variants of the EC paradigm, participants are passive observers and do not have any agency. Consequently, information gain is independent of previous learning and developing attitudes. Critically, this is not reflective of the entirety of learning opportunities in our environment. Often, we only get selective feedback and can only learn about an entity when actively sampling it. Additionally, information search is often directly connected to costs and benefits. As a result, explore-exploit dilemmas emerge where we have to balance our goal to learn and our goal to maximize positivity. To better reflect such environmental structures, we expand the EC paradigm by introducing sampling. Throughout the learning phase, we give participants agency over which CSs they want to sample (i.e., for what CSs they want to see conditioning trials). Half of the CSs are paired positively, while the other half is paired negatively. Since participants have control over the stimulus distributions, the number of pairings varies across CSs and participants. This allows us to investigate the relationship between the number of pairings and evaluative shifts. We also include a yoked condition, in which participants get to see the same information as produced by the sampling condition (i.e., same number of conditioning trials for different CSs), but do not get to make any decisions. This way, we can differentiate between effects of the sample and effects of sampling decisions. In addition to evaluative ratings, we also collect memory measures regarding the number of pairings and paired valence. The paradigm allows us to investigate sampling behavior, evaluative shifts and the relationship between samples, sampling behavior, and evaluations. Based on the assumption that people prefer encountering positive to negative USs, we predicted a preference for sampling positively paired CSs to develop over the course of the sampling phase. Building on research on information search in impression formation and research on approach-avoidance behavior, we expected the decision to sample a CS to increase its positivity, irrespective of the associated outcome (US valence). Since these effects were expected to be a result of sampling decisions rather than the sample, we expected these effects in the sampling, but not the yoked condition. In two experiments, we found the expected preference for sampling positively paired CSs. While participants started out by exploring the different CSs, the likelihood of sampling positively paired CSs increased over time. As expected, we also found sampling decisions to influence evaluations beyond the outcomes they resulted in. That is, higher number of interactions were associated with more positivity in the sampling, but not in the yoked condition. In the yoked condition, differences between positively and negatively paired CSs increased the higher the number of pairings. We found improved memory for the sampling condition compared to the yoked condition and better memory the higher the number of CS-US pairings. Implications for the ecological validity of EC paradigms are discussed..

Session	<b>Evaluative Learning</b>
Time	Mon, Sept. 3rd, 16:00
Room	C

Hans Ijzerman, Rhonda Hadi, Lison Neyroud, Richard A. Klein, and Ivan Ropovik

## **Social Thermoregulation: A Meta-Analysis**

Social thermoregulation refers to the idea that modern relationships are organized around processes of body temperature regulation. Since 2008, 90 published and unpublished reports appeared on this topic, with effects ranging from cold versus warm temperature effects on person perception judgments (Williams & Bargh, 2008), to the consequences of social exclusion on peripheral temperature (Ijzerman et al., 2012), to the relationship between diversity of the social network and core body temperature (Ijzerman et al., 2018). But like any psychological literature, this research is not without problems. For example, some paradigms have proven harder to replicate than others. We therefore conducted a meta-analysis to estimate the evidential value of the literature, as well as assess the extent to which publication bias is present in the literature. We find that for over 271 effects, there was sufficient evidential value for the relationship between temperature regulation and relationship functioning. The bias-corrected effect size estimate based on 156 eligible effect sizes and 22,577 participants was  $d = .11$ , 95% CI [.03, .19]; naïve multilevel MA estimate at .45. In addition, we did not find evidence for effects of temperature onto mood (bias-corrected  $d = .00$ ; naïve MA  $d = .15$ ). It is also clear that the social thermoregulation literature suffers from considerable publication bias. We will present these results overall and for 19 coded categories for subareas of the social thermoregulation literature. Given that one challenging aspect was judgment of quality, we will provide recommendations on how to move forward, and provide recommendations how to reduce publication bias and thereafter obtain a more accurate estimate of the true effect size of the social thermoregulation literature..

Session      **Large-Scale Investigations**

Time          Mon, Sept. 3rd, 16:30

Room         B

## The modern physiognomist: Mapping people's belief in the link between facial features and personality

Physiognomy is the practice of reading personality traits from facial features. While physiognomy has been practiced for more than two thousand years, it has been widely regarded as pseudo-science ever since the early 1900s. Indeed, recent research shows that the accuracy of people's first impressions is limited at best. However, studies also reveal that people spontaneously infer personality traits from faces and that they rely on these inferences to make consequential decisions. It remains unclear when and why people rely on first impressions to make decisions. Here, we investigate the role of physiognomic belief—the belief that a person's personality is reflected in their facial features—by measuring its prevalence, structure, and correlates in four studies (total  $N = 1,043$ ). Across all studies, we find that around half of participants (50.75%) at least somewhat agreed with the statement that a person's personality is reflected in their face. We also find that people have heterogeneous beliefs about the relationship between facial features and specific personality traits: Participants believed that sociability can be more accurately inferred from a face than morality or competence and this effect held across all four samples ( $d = 0.84$ ). Next, we investigated the correlates of physiognomic belief. Participants who scored higher on physiognomic belief were more confident in the accuracy of their face judgments (Study 2). In line with people's belief structure, participants were more confident in the accuracy of their face judgments when judging sociability (vs. morality or competence). We also find that participants who scored higher on physiognomic belief perceived photos to be a more important cue when selecting job applicants (Study 3). Again, photos were perceived to be a more important cue when the task was to identify a sociable (vs. moral or competent) job applicant. Finally, we examined whether physiognomic belief is related to the extent to which people rely on face judgments when making decisions. In line with previous studies, we found that participants relied on perceived facial trustworthiness to decide whom to trust in an economic game, even though a more valid cue (i.e., their partner's incentive to betray trust) was available (Study 4). Crucially, participants who scored higher on physiognomic belief relied more on perceived facial trustworthiness. Together, our findings point to a common belief that personality is reflected in facial features and that certain traits can be more accurately read from a face than others. Individual differences in physiognomic belief were related to various aspects of impression formation, including the extent to which participants relied on face judgments when deciding whom to trust. Our results thus suggest that the widespread influence of first impressions on decision-making could derive from people's belief in the accuracy of their first impressions..

Session	<b>Face Perception 2</b>
Time	Mon, Sept. 3rd, 14:30
Room	C

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Maayan Katzir and Nira Liberman

## **Proactive considerations in effort allocation: The influence of motivation on asymptotic performance level in effortful cognitive tasks**

When performing a challenging and tedious task, performance may change over time as a function of different processes, including learning, fatigue and strategic decisions on effort allocation. In this work, I examined the latter. Specifically, I examined whether performance would be influenced by proactive considerations of the potential future effort that might be still needed. To achieve that, I manipulated feedback on goal progress. A feedback indicating how much more there is to go to complete the task enables people to regulate effort investment in view of the remaining task. Specifically, when the end is near, it would make the actor allocate effort in a less frugal manner and as a result perform better. Conversely, when a task goes on and on, and people don't know how much more there is to go, conserving effort is a wise choice. In two experiments (NExperiment1=64, NExperiment2=83), I examined continuous performance on a switching task and examined how giving feedback on progress affected the learning curve. Importantly, the feedback was a progress feedback that did not give any indication for performance. In a multilevel analysis, I found a higher asymptotic level of performance in the group that received feedback on progress compared to the group that did not receive such feedback. Studies that examined cognitive performance in prolonged cognitive tasks explained variations in performance in terms of ability (between participants variations) and learning (within-participants variations). These results show a third variable: considerations of effort conservation determine the asymptote that is reached within a task..

**Session      Self-Regulation and Mental Effort 2**

**Time          Wed, Sept. 5th, 11:30**

**Room         D**

Matthias David Keller, Ryan Stolier, Eric Hehman, Mirella Walker, and Jonathan Freeman

## Conceptual trait space shapes perceptual trait space

Obtaining first impressions of other individuals is a fast and automatic process. A very important cue to form an impression about other persons is their face. From a face we do obtain information about rather obvious characteristics like age, gender or ethnicity. However, we also form impressions about personality traits. These can be highly consequential for the person we are judging. Negative trait impressions may lead to rejections when looking at job-application letters entailed with a portrait or to an unbacked political campaign using personal posters as advertisement. A central feature of face trait impressions is their intercorrelation, meaning that different trait impressions are correlated with many others. A person that is perceived as trustworthy is more likely also be perceived as extroverted and intelligent. A person that is perceived as dominant may also be perceived as aggressive. Recent theoretical frameworks have proposed that social-cognitive factors may have a substantial influence on trait impressions. Humans hold naïve theories about the relation between different personality traits. The ‘conceptual trait space’ therefore represents the individual belief of how different traits are correlated. Previous research shows, that traits interrelated in the conceptual trait space depend and influence each other. We investigate whether this belief might also influence facial perception. Individuals who believe that someone who is trustworthy might as well be extroverted (conceptual trait space) may transfer this belief to face perception and perceive a face that looks trustworthy as more extroverted (perceptual trait space). Three experiments have been conducted to test the hypothesis that the conceptual trait space shapes the perceptual trait space. In Study 1, we find conceptual trait space explains considerable variance in trait space (explaining on average 67% of the variance). Studies 2 and 3 demonstrate conceptual trait associations of the perceivers predict individual differences in their face trait space. Importantly, Study 3 demonstrates that perceivers’ conceptual trait associations fundamentally alter the facial features they are using to make trait impressions. This study builds on a novel methodological combination of the reverse correlation technique with the face space assumptions. These results suggest that individuals’ conceptual trait space explains a substantial portion of variance in their perceptual trait space. Importantly, perceivers’ conceptual trait associations predict their subjective perceptual trait spaces, and fundamentally alter how they use facial features to make trait impressions in the first place. These findings suggest conceptual trait knowledge plays a crucial role in face-based trait impressions, with important implications across social perception and interpersonal behavior..

Session      **Face Perception 1**

Time          Mon, Sept. 3rd, 11:00

Room          C  
Merja Susanna Kiiskinen

## Communal values as a tuner of social emotions: A comparative study in literate and illiterate communities

Communal values as a tuner of social emotions: A comparative study in literate and illiterate communities Merja Kiiskinen 11.2. 2018 Social information embodied in social emotions reflect the values of community and the models of interaction between individuals (Cosmides & Tooby, 2000; Hutcherson & Gross, 2011; Rozin, Lowery, Imada, & Haidt, 1999; Silfver, Helkama, Lönnqvist, & Verkasalo, 2008). In this study was compared communal values and social emotions in two forms of knowledge sharing tradition, in literate community and in illiterate community. Social emotions has a great importance to the individuals social interaction and to ability to attain satisfying social relationships by driving and evaluating interaction situations and creating and shaping reaction models (Hutcherson & Gross, 2011). Competence in social interaction skills is necessary element when surviving and succeeding in society. Indigenous people's studies has repeatedly revealed and proved that communal values do realize in social interaction of the communities of traditional way of living, such values as sharing, fellowship, and equality (Dietz ym., 2005; Houde, 2007; Meyer, 2001; Miller & Ojong, 2013). Houde (2007) also noticed the connection between pro-social values and ecological management of nature resources. Social phobias and mental disorder, such as depression and distress disorder, has been found to be related to the tendency of shame emotion and self-esteem degree. Tangney and Dearing (2002) noticed connection between tendency of shame, distress, and low self-esteem, mean while Väänänen, Isomaa, Kaltiala-Heino, Fröjd, Helminen and Marttunen (2014) discovered self-esteem being as a mediating factor between social phobias and depression disorder. Still authorities from Finnish public health care institute (KELA) Raitasalo and Maaniemi (2009) pointed out 44 % increase of health care security payments under 30 years old young people over the time period 2004–2009, because of the depression disorder. Their opinion for the development of the increased amount of depression was the lesser support from social network in all fields of young people's life, such as school, family, health care system, and work. In my presentation I'll introduce the results of my study, that is connections between community well-fare, emotional experiences of shame and empathy, and self-esteem from the point of view of literate or illiterate community. The data has been collected from India in cities among modern city people and in villages among tribe people. Sample size is 61 interviews, half of them are illiterate and the other half is literate. As an instrument of data acquisition I used six formal tests, which tapped the field of pro-social values of the community, experienced emotions of shame and empathy, and self-esteem. Data was collected during period from 2014 to 2017. The sample was controlled by age and gender balance. Quantitative results from the formal questionnaires verify that communal values are the same in both illiterate and literate groups, in other words both groups appreciate and prefer similar universal communal values of the basic well-fare, but deeper insight behind the questions and experienced socio-moral emotions tells another story..

Session	<b>Social Emotions 2</b>
Time	Wed, Sept. 5th, 11:00
Room	B

Richard Klein

## Many Labs 2: Investigating Variation in Replicability across Sample and Setting

Committee: Please keep these results confidential amongst yourselves/reviewers for the moment (under embargo). The present project investigates a core assumption in psychology: that psychological effects vary across persons and situations. Specifically, the study investigates whether replications of psychological effects conducted in different contexts and cultures display substantial variability in results. On one extreme, psychological effects may be so context-dependent that replication is a perilous endeavor; on the other extreme it may be that psychological effects hardly vary at all across demonstrations (beyond sampling error). Employing an expanded version of the “Many Labs” paradigm (Klein et al., 2014; Ebersole et al., 2016), pre-registered replications of 28 psychological effects were conducted across 125 samples around the world (total N = 15,305). The selection of studies emphasized high-impact, broadly influential, and frequently-cited research areas, as in prior “Many Labs” studies. However, Many Labs 2 specifically favored findings expected or previously demonstrated to vary across cultures. And, in addition to recruiting a much larger number of samples – nearly 4 times as many as the original Many Labs Project – the included samples were substantially more diverse. In total, 35 countries and territories participated in the project, and the protocol was translated into 16 different languages. The 28 selected studies were divided between two “slates” or packages of studies, each containing 13 or 15 studies. Within these slates the studies were presented in a randomized order for each participant, and each package was administered in half of the participating samples (64 for Slate 1, and 61 for Slate 2). Results from the project will be presented meta-analytically with an emphasis on cross-site variability in replication effect size. Results indicate that the majority of included studies were not substantially affected by the specific sample or setting of data collection. At least across the included contexts and cultures, replication effect size was mostly consistent across labs. This finding is in line with Klein et al., 2014 and Ebersole et al., 2016; however, given the increased diversity of samples and the focus on cross-cultural effects in study selection, it provides a much stronger test of heterogeneity. In addition, for most studies replication success (and effect size) was not substantially affected by the order of presentation of the study in the script (e.g., first or last), whether the sample was WEIRD or non-WEIRD, or the format of presentation (online vs in-lab). These results do not indicate that such variation does not exist – in fact a few studies did show substantial variability across these dimensions. And, the sampling of studies was not random nor representative. However, the general finding that most included studies did not show this sort of variability indicates that replications in different labs or contexts are likely valid and proposed contextual moderators should be empirically tested. These findings also suggest that recent failures to replicate in social psychology (e.g., Open Science Collaboration, 2015) are unlikely, in general, to be due to small variations in context or lab..

Session      **Large-Scale Investigations**

Time          Mon, Sept. 3rd, 17:00

Room         B

Alex Koch, Philipp Henzel, Max Alt, Hans Alves, and Christian Unkelbach

## **Stereotype diagnosticity increases stereotype usage**

According to the ABC model of stereotypes, people spontaneously use the dimensions agency / socioeconomic success (A), conservative-progressive beliefs (B), and communion (C) to compare social groups such as managers, alcoholics, the military, lesbians, and parents. The conditions under which people use A, B, and C, however, are not well understood. Clarifying when and why people use which dimension would constitute a major step towards anticipating and attenuating the different forms of prejudice and discrimination that arise from the usage of A, B, and C. In five studies (total N = 1097), we tested the hypothesis that people use A, B, and C according to their diagnosticity. The diagnosticity of A increases with the difference in A between the groups present in a given situation, and decreases with the difference in A within the groups present in that situation (same for B and C). In Study 1, people observed and learned the distribution of two alien groups on two dimensions (A and B, A and C, or B and C). The difference between the groups' mean was the same on both dimensions, whereas the difference within the groups was large on one dimension (overlapping distributions; lower diagnosticity) but small on the other dimension (non overlapping distributions; higher diagnosticity). People preferred the more diagnostic dimension to compare the groups and form stereotypes about unknown members. In Study 2, the difference within the groups were the same on both dimensions, whereas the difference between the groups' mean was small on one dimension (overlapping distributions; lower diagnosticity) but large on the other dimension (non overlapping distributions; higher diagnosticity). As in Study 1, dimension diagnosticity increased dimension preference for group comparison and stereotype formation. In Study 3, people spatially arranged a random sample of eight real groups from left to right on the screen. Next, they rated the difference in A, B, and C both between and within these groups. As predicted, the larger the difference between the groups' mean on a dimension, the better that dimension (i.e., A, B, or C) described the groups' spatial arrangement from one to the other side of the screen. Within-group difference in A, B, and C did not explain stereotype usage as measured with spatial arrangement. Studies 4 and 5 replicated this pattern with German instead of U.S. groups and with realistic instead of random samples of groups ("select 8 [of 88] groups that you have recently thought, heard, read, written, or talked about"), respectively. We concluded that spontaneous usage of the stereotype dimensions A, B, and C increased with the difference in A, B, and C between the groups present in the given situation. We argue that stereotype diagnosticity is a powerful explanation of stereotype usage, because the composition of the groups present in a given situation is an omnipresent influence on people's choice of dimension(s). It is also powerful because the groups present in a given situation can be influenced, providing a start for developing interventions to attenuate the problematic consequences of A, B, and C stereotypes..

Session      **Stereotypes and Prejudice 3**

Time          Tue, Sept. 4th, 10:00

Room         A

## Distance Influences Stability of Attribution

Psychological distance from an event influences what humans judge to be the event's cause. Near events are often attributed to situational causes and distant events to dispositional causes. This dispositional shift has been observed for temporal distance (more dispositional causes for distant compared to near future or past events), spatial distance (more dispositional causes for far compared to near places), and social distance (more dispositional causes for others' compared to own actions—the actor–observer effect). Usually, the dispositional shift has been interpreted as a shift in locus of attribution—internal attributions for near events and external attributions for distant events. However, the disposition–situation dichotomy confounds locus and stability of attribution. Dispositional causes are often both, internal and stable, while situational causes are often both, external and unstable. In principle, however, stability and locus of attribution can be orthogonal. Therefore, it is not clear whether the dispositional shift is a shift in locus of attribution, as generally assumed, or a shift in stability of attribution. Using Construal Level Theory, we hypothesize that distance changes stability of attribution. We tested this hypothesis in two experiments. Both experiments were pre-registered and well-powered, based on a power-analysis using the effect size from a large initial study. In both experiments, participants were asked to imagine eight different events (4 positive, 4 negative) happening with high or low distance (between-participants) and name the main cause of the event. Then they were asked to evaluate this cause using the Causal Dimension Scale (McAuley et al., 1982) on four dimensions (within-participants)—locus, stability, internal controllability, and external controllability. In Experiment 1, we manipulated temporal distance (e.g., In two days [In two years], you will meet a friend who will compliment you on your appearance.) and in Experiment 2, we manipulated social distance (self vs. distant other). The results of both experiments confirm our hypothesis. Specifically, in Experiment 1, distant compared to near future events were attributed to more stable causes ( $d = 0.51$ ). In Experiment 2, actions by a socially distant person compared to oneself were also attributed to more stable causes ( $d = 0.86$ ). In Experiment 2, in addition to a difference in stability of attribution, we also observed a difference in locus of attribution ( $d = 0.47$ ), with more internal attributions to distant persons compared to oneself. These results shed light on possible mechanisms of the dispositional shift, emphasizing the role of stability of attribution. In addition to their contribution to the mechanisms of the dispositional shift, these results will also be discussed with reference to recent work on mental state inferences..

Session      **Interpersonal Processes**

Time          Wed, Sept. 5th, 10:00

Room         E

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Anand Krishna and Fritz Strack

## **Prevention focus fosters processing of negations in the affect misattribution procedure**

Regulatory focus theory postulates that a motivational promotion focus is associated with approaching matches to positive endstates while a prevention focus leads to approaching mismatches to negative endstates. The effects of regulatory focus on various aspects of cognition and behavior is well-documented, but little research has examined possible integrative mechanisms that explain their diversity. Specifically, previous research has shown that a prevention focus leads to more deliberative processing. From a dual-process perspective that distinguishes between associative and propositional processing, this implies that a prevention focus should be linked to more propositional reasoning. Furthermore, a prevention focus fosters subtractive counterfactual thinking and rejection-focused choice strategies, both of which require negating cognitive elements. We propose that prevention focus bolsters the propositional cognitive process of negation (i.e. the transformation of a concept into its opposite) as an integrative mechanism for these effects. In four studies, we show that chronic prevention focus increases the impact of negation of primes on responses in the affect misattribution procedure, especially when participants also have a fitting situational prevention focus. These results persist over two stimulus sets, two different manipulations of regulatory focus and with or without time constraints for the AMP response. These studies provide evidence that regulatory focus affects basic, unintentional processing, providing an avenue to integrating the diverse effects of regulatory focus into a dual-process information processing framework. Furthermore, they show that basic negation processing in particular may be subject to situational motivational influences. A large-scale confirmatory preregistered online replication of these findings is in preparation..

Session      **Indirect Measures 1**

Time          Wed, Sept. 5th, 10:00

Room         C

## **Dissociating the Effects of Associations and Relational Qualifiers on Evaluative Conditioning**

"Evaluative Conditioning (EC) describes the change in liking of a neutral stimulus (CS) by mere co-occurrence with a positive or negative stimulus (US). In everyday life however, US-CS pairings are rarely encountered in isolation. Rather, the pairing is often accompanied by a functional predicate that describes how the US and CS are related. For example, while police officers often co-occur with crime (a negative association), they only do so because they stop crime (a positive implication). In other words, the implication of the CS and the US-CS association might suggest opposing shifts in valence. Therefore, it is important to investigate to which extent EC effects are influenced by memory for the implication of the CS and the acquired CS-US association. In this project, participants were instructed to learn US-CS pairings (positive/negative) together with a functional predicate (stop/start; Moran & Bar-Anan, 2013). In experiments 1-3, participants were subsequently instructed to report the implication of the CS in a memory task (for example, CSs that stop a negative sound have a positive implication). We showed that when participants failed to respond in line with the implication of the CS, they were inclined to respond in line with the US-CS association. Furthermore, with using a process dissociation approach, we demonstrated that both memory for the implication of the CS and the acquired US-CS association uniquely predicted evaluative change of the CSs. In experiments 4-6, we extend our focus by investigating how memory for the implication of the CS and the acquired CS-US association shape evaluations over time, by including a mouse-tracking task as evaluation task. As mouse-tracking—to the best of our knowledge—has never been used in concert with EC, experiments 4 and 5 test how mouse-tracking trajectories are related to EC effects. In experiment 6, participants have to indicate the role of the CS (CSs that started/stopped a positive/negative sound) by moving their mouse to one of four corners of the screen. We will specifically focus on analysing intermediate movements: Participants often initially move towards two potential response categories without choosing a specific direction. Traditionally interpreted as reflecting competition between cognitive processes, recent motor control theories suggest that intermediate movements are an optimal strategy to deal with uncertainty about the correct response category: People move towards both response categories in order to minimize the distance between the mouse and the most likely targets without losing the flexibility to choose a response category at a later point in time. Thus, intermediate movements (e.g., moving towards “started positive” and “started negative” without choosing a direction) can be interpreted as the result of an evidence accumulation process in which a participant might be sure about one stimulus dimension (e.g., the relational qualifier of the CS) but not yet about the other (e.g., the valence of the CS). Using computational modelling, we will model intermediate movements as a function of an evidence accumulation process, which in turn, promises to provide a framework to formally evaluate existing theories of EC. "

**Session**      **Evaluative Learning**

**Time**          Mon, Sept. 3rd, 17:00

**Room**         C  
Jens Lange

## Conceptualizing emotions as networks

It is a widely held position that emotions are complex constructs. They entail various only partly related components (e.g., subjective feelings, action tendencies), are predicted by multiple processes, and have numerous consequences on all levels of psychological functioning. Sophisticated theories of emotions in general or specific theories for distinct emotions have been proposed. Yet, in contrast to these theories, in concrete measurement situations, emotions are often treated as unidimensional, latent (i.e., unobservable) variables (e.g., by averaging questionnaire items) or components of an emotion are studied individually. This led to substantial confusion how emotions should be measured and, eventually, what emotions actually are. Thus, advancement in theorizing on emotions is unparalleled by advancement in emotion measurement. This can at least partly be explained by the fact that emotion theories are rarely connected to measurement models. Doing so could overcome the gap between theorizing and measurement. So far, two measurement models of emotions have been proposed, namely the reflective and formative latent variable models. In the talk, I will argue that both models have a number of implications for the nature of emotions, that are not supported by empirical evidence. Specifically, in the reflective latent variable model, emotions are conceptualized as invariant common causes that are separately identifiable from their components, while the components are supposed to be locally independent and exchangeable. However, evidence implies that there are no common causes of emotions, emotion components directly define the emotion, emotions vary between individuals, and components have direct effects on each other. In the formative latent variable model, emotions must be identified via external variables and any relationship between emotion components is considered uninformative for the measurement of emotions. However, the multitude of possible external variables to identify emotions would prevent any reasonable measurement and theorizing supports that the direct effects of emotion components on each other actually constitute the emotion. Thus, a new measurement model of emotions is necessary that allows to measure emotions, captures variance in emotions between persons, and allows direct effects between emotion components. I propose a network model of emotions that fulfills these requirements. In network models, the relationships between all emotion components of one emotion collectively constitute the emotion without reference to a latent variable. Such a conceptualization may provide new insights into emotions. In line with evidence, I suggest that emotions can be conceptualized as small-world networks in which groups of components are highly correlated, whereas there are only a few connections between these groups. Moreover, I will outline how network models facilitate to derive specific hypotheses regarding causal structures in the dynamics of emotions, provide a framework for mixed emotions, and inform research on emotion regulation by identifying central components. I will illustrate these points with a network model of one multi-componential emotion, namely envy, with two independent samples (total  $N = 1,174$ ). Therefore, the talk will be mostly theoretical but also empirical. In sum, a network model constitutes an integrative measurement model of emotions and may consequentially advance emotion theorizing..

Session      **Social Emotions 1**

Time          Wed, Sept. 5th, 9:00

Room         B

Ana Lapa, Leonel Garcia-Marques, Paula Carneiro, and and André Vaz

## **Learning new information during collaborative recall: does perceived relevancy play a role?**

Collaborative memory research has shown that, when people perform memory tasks collaboratively, they retrieve significantly less information than the same number of people working alone (collaborative inhibition effect; Weldon & Bellinger, 1997). However, when we engage in collaborative memory tasks, not only do we experience or recall the same event, we can also be exposed to new information shared by others. With this research, we aimed to understand if the perceived relevancy of new information shared by others during recall might play a role in learning. To do so, in a first session, participants were individually asked to read and memorize a set of words. These could be completely different across participants (no overlap); or half of the words could be the same while the other half remained unique for each person. Afterwards, participants were asked to do a recall task. It could be performed individually or in a group (triads). When all group members had studied different sets of words with no overlap between them, they were informed of it (0% condition). However, when all group members had studied sets of words that had overlapped for half of the words, to manipulate perceived relevancy, group members could either be informed that the overlap could be of at least 20% (20% perceived relevancy condition) or up to 80% (80% perceived relevancy condition). Forty-eight hours later, on a second session, participants were asked to individually perform another recall task. They had to recall not only the words they had read but also those the other group members had shared. Regarding the first session, we found a collaborative inhibition effect, with collaborative groups performing worse than nominal groups (the same number of participants recalling individually). It has been suggested that collaborative inhibition occurs because, during collaboration, participants' retrieval strategies are disrupted by the other group members' responses (Basden, Basden, Bryner, & Thomas, 1997). Interestingly, this effect was smaller for groups in the 20% perceived relevancy condition but not for the 0% overlap condition. Two days later, when we compare recall for items that had uniquely been presented to each participant, the same pattern emerges. Collaboration seems to have impaired recall when there was no overlap (0% condition) or when subjects were told the overlap could be up to 80%; but not when they were told it was of at least 20%. It seems attributing a lower relevancy to information shared by others might be a protection factor: no longer disrupting the retrieval strategies in use; whereas absence of overlap and attributing no relevancy at all, might refrain participants to use others' responses as cues and become more vulnerable to retroactive interference. In fact, recall for new information shared by others during collaboration - words that participants were exposed only by hearing others recall - was similar across conditions. Perceiving a lower relevancy for new information shared during recall seems to be somewhat protective of memory, perhaps both shielding from interference and from disruption of the retrieval strategies that occurs during collaboration..

**Session      Social Memory and Recollection**

**Time          Tue, Sept. 4th, 14:30**

**Room          C**

**Dawn Liu, Marie Juanchich, and Miroslav Sirota**

## Directional Inferences in the Framing Effect with Verbal Quantifiers

People find positive attribute frames (e.g. '75% lean') more persuasive than negative ones (e.g. '25% fat'). While this effect has typically been studied using numerical quantifiers, speakers often use verbal quantifiers to convey information. Some evidence suggests that the framing effect can be magnified using verbal quantifiers (e.g. 'low fat'), but there has been limited research addressing the moderating role of quantifier format and why verbal quantifiers may result in a larger framing effect. A pragmatic account of framing effects suggests that people infer additional information from a chosen frame. Verbal quantifiers have greater inherent pragmatic meaning compared to numerical quantifiers, thus they should convey clearer pragmatic signals and increase the framing effect. Over two experiments, we investigated the effect of using verbal or numerical quantifiers on positive or negative frames. Experiment 1 (N = 335) replicated the traditional framing effect, showing that participants judged 75% and 95% lean meat as healthier than the equivalent 25% or 5% fat meat. Using verbal quantities selected by participants as corresponding numerical percentage, we also demonstrated a larger framing effect with these two quantities. The magnitude difference of the framing effect for verbal and numerical quantities was greatest for the 25% fat/75% lean combination. However, when the quantities of fat were uncommon (e.g. 75% fat), participants did not display a framing effect. Also, there was no effect of frame or format on participants' willingness to pay for the meat across all quantity combinations. Experiment 2 (ongoing; target N = 433) investigates if the larger verbal framing effect is driven by the ability of verbal quantifiers to draw attention to either the presented attribute or an alternative one. For instance, '5% fat' creates a focus on how much fat is in the meat, whereas 'low fat' would make people focus on how lean the meat is. Using a similar procedure to Experiment 1 to generate equivalent verbal quantifiers, we will obtain healthiness judgements of the framed meat products, as well as solicit reasons for why the meat is so fat (lean). Participants will be asked to select either a reason that focuses on the presence of fat (lean meat) or its absence, as the explanation that makes the most sense. The results of Experiment 2 could show that verbal quantifiers also provide additional information about the quantities involved in the frame, thereby boosting the pragmatic signals people obtain to make their judgements..

Session      **Judgment and Decision Making 1**

Time          Wed, Sept. 5th, 9:30

Room         A

**I know the rule, but I'll just go with my gut: on the diagnosticity and rational use of intuition.**

There is consistent evidence that human reasoning is often biased by intuitive judgment. The base-rate neglect effect provides such an example, so named because people often support their decisions in stereotypical individuating information, seemingly neglecting base-rate information. Drawing from evidence suggesting that base-rate neglect still occurs when participants are directly granted access to inferences based on base-rate information and when they experience conflict between individuating and base-rate information, we tested, within a base-rate neglect paradigm, the hypothesis that reasoners acknowledge information provided by base-rates and may use individuating information in support of a "rational" decision process. In Experiment 1, participants agreed significantly more with responses based on individuating information (hereforth individuating responses) than base-rate information (base-rate responses), even in conditions created to promote an explicit conflict between individuating and base-rate information. Additionally, suggesting that they found individuating information more diagnostic, individuating responses were better evaluated in quality compared to base-rate responses in explicit and non-explicit conflict conditions. These results show that the acknowledgement of the conflict between individuating and base-rate information does not prevent participants from relying more on individuating information. Experiments 2-4 approached the hypothesis that some individuating responses might not necessarily reflect the "neglect" of base-rate information, but instead, participants' preference for and perceived diagnosticity of individuating information. Experiment 2 shows that some participants use and rely more on individuating information as the main basis for their judgments. Specifically, these 1) reported a preference for individuating information as a basis for their judgments, 2) made more use of this information regardless of it being congruent or incongruent with base-rate information, and 3) reported a higher confidence on their responses in conditions in which they were able to use individuating information (as opposed to conditions in which they could only base their decisions on base-rate information). In Experiments 3 and 4, we addressed the hypothesis that participants who report a preference for individuating information may use it rationally following an individual Bayesian approach, using base-rates as prior probabilities and the perceived diagnosticity of individuating information as a mean of updating such prior probabilities. Results from both experiments show that the degree with which participants judged individuating information as more diagnostic than base-rate information was significantly associated with the likelihood of providing individuating responses. Additionally, individuating responses were more prevalent when these were supported by posterior probabilities (assigned after all information is considered). This effect was stronger for participants with a preference for individuating information. Interestingly, results also suggest a deeper form of base-rate neglect: we found evidence that some participants who reported a preference for base-rate information, who perceived base-rates as more diagnostic and for whom subjective posterior probabilities were congruent with base-rate responses, still provided individuating responses. These results provide evidence that there is more than meets the eye to responses based on individuating information. There are participants who show an a priori preference for individuating information (which relates with its perceived diagnosticity) and who may be actually involved in complex deliberate rational processes when providing individuating responses..

**Session Judgment and Decision Making 2**

**Time Wed, Sept. 5th, 11:30**

**Room A**

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Paul Maher, Eric R. Igou, and Wijnand A. P. van Tilburg

## **Inconvenient truth: A prototype analysis of the experience of disillusionment**

Positive illusions about the world and the self are pervasive (Greenwald, 1980; Janoff-Bulman, 1989; Taylor & Brown, 1988), and the violation of such illusions is likely to be an inevitable feature of life. Disillusionment is purported to be a painful emotional experience with important personal and social consequences (e.g. Block, 2011; Huston et al., 2001; Maher, Igou, & Van Tilburg, 2018). Yet, there is no clear agreement over what disillusionment is. In a series of three studies, we explored everyday conceptions of disillusionment using a prototype approach. Prototype analysis aims to identify representative categories of different concepts by examining affective, cognitive, and motivational features and grouping them according to their centrality (Hepper et al., 2012). In Study 1 (N = 212), we extracted 19 features of disillusionment from open-ended definitions provided by participants. In Study 2 (N = 130), participants rated the centrality of these features, indicating that features such as discovery, disappointment, and loss were highly representative, while features such as hopelessness, orientation and truth were more peripheral. Finally, in Study 3 (N = 149) we demonstrated participants rate descriptions of negative experiences as more disillusioning when they were based on more rather than less prototypical disillusionment features, validating the findings of Studies 1 and 2. Overall, these findings suggest that disillusionment is a state of negative epistemic affect, associated with disappointment and loss that is triggered by a discovery that strongly violates people's assumptions and expectations about the world. This research provides a blueprint of the experience that can inform future studies on the content, causes and consequences of disillusionment. Future attempts to measures or manipulate disillusionment should take into account the features we have identified.

Session      **Erroneous Beliefs and Conspiracies 2**

Time          Tue, Sept. 4th, 13:30

Room         E

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Marta Maj

### **Inconsistent - unthreatened. The anxiety-buffering function of values.**

The anxiety-buffering properties of values have been tested widely and found experimentally supported in many research areas (e.g. in the context of the religious convictions soothing cognitive discrepancies, or in the terror management studies in which values are part of worldview buffer for existential threats). Although the anxiety-buffering function of values seems well-proven, there is another side of the coin: values set some standard for our behavior that is often difficult to obtain. Even though behaviors contrary to values are no surprise to laymen and researchers, little is known of how this dissonant notion affects our daily lives and how do we cope with it. This project's assumption is that out of those two important functions that values serve – buffering anxiety and directing behavior – the first one is of higher importance and that is why 'hypocrisy' (biased perception of correspondence between important values and actions reflecting them) may take place. Confronted with threat, people rather underestimate the gap between declared value and behavior, which underestimation helps them to restore the threatened aspect, e.g. self-esteem, in return. That applies also to the situations when people's own inconsistency is threatening for themselves. The aim of my project is to unravel some aspects of the underestimated inconsistency between values and behaviors. In two preliminary studies I run online I checked which values are important and problematic to live in accordance with for students and which behaviors exemplify them best. For two studies I am up to conduct before the summer break I have planned to experimentally test whether 1. underestimation of the value-behavior gap is bigger after facing threat and 2. this so-called 'hypocrisy' helps people to restore the threatened aspect, e.g. self-esteem. In the first experiment, after threat manipulation, I will measure perceived gap using declarative estimations by participants. To conduct the second one, I would apply not only declarative measures, but also reaction times as a signal of conflict detection. Doing so would enable me to state how much basic cognitive processes are involved in biased perception of value-behavior inconsistency..

Session      **The Self**

Time          Wed, Sept. 5th, 15:00

Room         C

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Ira Theresa Maschmann, Alexandra Fleischmann, and Iris K. Schneider

## **(Detrimental) Effects of Gender-Fair Language**

Gender-fair language (GFL) is used as a means to emphasize on the equality of men and women and to therefore reduce discrimination against women. Visibility of women is meant to be increased through GFL, and this is presumed to be due to the inclusion of women in one's mental representation through GFL. In grammatical gender languages such as German (the language under investigation in this research project), all nouns have grammatical gender, however, generally masculine nouns are used to refer to groups that consist of both men and women (e.g. the noun "Friseur" [hairdresser] is used in the masculine form but addresses both female and male hairdressers). The usage of GFL in job titles (in the form of word pairs compared to the usage of male generics; e.g. "Friseurinnen und Friseure") has been shown to enhance the perceived fit of women for high-status jobs. However, using GFL in job titles has also been shown to reduce the perceived status of jobs, as well as the estimated salary. Two pilot studies and one main study (total N = 500) were conducted to investigate on this complex pattern of effects of GFL within the same study. It was hypothesized that professions that were presented in GFL (compared to a presentation in male generics) would be perceived as being more typical for women but would be rated lower on perceived status and estimated salary. In the pilot studies, an effect of GFL on the perceived gender prototypicality of professions was found, indicating a higher visibility of women within a profession. Participants rated professions to be more typical for women for professions that were low (Pilot Study 1) and moderate (Pilot Study 2) in stereotypicality for women. In the main study, the effect of GFL on perceived prototypicality of profession was replicated but no effects on perceived status and estimated salary were found. These results cast doubt on the presumed detrimental effects of GFL but strengthen the notion that GFL leads to an inclusion of women in one's mental representation of professions..

Session      **Gender and Identity 1**

Time          Tue, Sept. 4th, 9:30

Room         D

André Mata, Cristina Mendonça, Karolin Salmen, and Mafalda Mascarenhas

### **The Collective Erosion of Cognitive Conflict**

Research on judgment and reasoning uses single-generation studies where all participants receive equivalent experimenter-provided premises. However, people often share information amongst themselves, and reasoning in the wild (i.e., outside the lab) operates on premises that have been passed on and transformed by other people. In the present studies, the serial reproduction paradigm was borrowed from classic memory research in order to study collective representations of reasoning and moral problems. Results show that, as problems are communicated through a chain of people, they become increasingly distorted towards simplistic versions that no longer call for effortful deliberation, and, as a result, the influence of individual differences in thinking styles fades across the successive generations of reasoners..

Session      **Erroneous Beliefs and Conspiracies 2**

Time          Tue, Sept. 4th, 14:30

Room         E

Joana Mello, Teresa Garcia-Marques, Pablo Briñol, Ana Cancela, and Richard E. Petty

## The Effect of Source Physical Attractiveness on Attitude Strength

Attractive sources can influence persuasion by reducing (or increasing) careful processing of a message, especially when no constraints are placed on a person's ability and/or motivation to think. Most research conducted so far has focused on how source attractiveness can influence attitudes by affecting processes of primary cognition (e.g., amount of thinking). In the present research, we predicted and found that source attractiveness is also capable of influencing attitude confidence directly, even when this physical feature doesn't promote any change in attitudes. It is known that more confidently held attitudes are stronger, which means that they are more likely to persist over time and to resist change. In this experimental paradigm, participants were first exposed to a persuasive proposal that was followed by an image of a high vs. low attractive picture for the message source. After this, participants reported their attitudes and subjective and objective indicators of attitude strength were assessed. In Experiment 1 we found that high (vs. low) physical attractiveness of the source reduced attitude confidence. In Experiment 2 we add a control condition (no face) and participants were also presented at the end of the study with a contra-attitudinal message and attitudes were also measured at Time 2. Data from this study replicates the effect of physical attractiveness on attitude confidence and this was extended to an objective measure of resistance when analyzing attitudes at time 2 vs. Time 1. In Experiment 3, the effect of physical attractiveness on attitudes confidence reduced resistance and the extent to which people rely on their previous attitudes in guiding subsequent behavior. Taken together, the present studies reveal that physical attractiveness can influence not only attitude-change but also attitude confidence and that this effect appears to have a consequential effect in attitude strength. Implications for the effects on attitude strength and its consequences are discussed..

Session	<b>Attitudes</b>
Time	Tue, Sept. 4th, 10:30
Room	B

## Reading and writing habits: Horizontal asymmetries in visual attention

Culturally established reading and writing habits have been found to drive visual attention asymmetrically. Movement is generally conceived of as unfolding laterally in the writing direction that one is socialized into. In the case of European languages, this is a left-to-right bias. These spatial routines create expectations about how action progresses and have an impact on how visual space is navigated. The orientation of visual attention has been examined with variations of Posner-like cueing tasks. It is well-established that when cue indication and target location are consistent, performance for target detection is enhanced. It is impaired when cue indication and target location are inconsistent. While this pattern may hold for most studies, culturally established reading and writing habits are likely to exercise an additional unidirectional influence on detection performance, a factor that has been overlooked. We propose that the rightward attentional bias prompted by the culturally anchored direction of movement should give rise to differences both in detection latencies and gaze movements across left and right visual fields. In two recent experiments, we found that the robust congruency effect typically observed in cueing tasks is amplified when a visual cue is aligned with habitualized left-to-right scanning habits (i.e., right-facing face). Study 1 relied on response times (RT) for correct detection and error rates in an examination that used three facial orientations as attention directing cues and revealed a rightward spatial bias in target detection. Study 2 introduced an objective measure, namely eye movements, to examine the underlying visual search patterns driving these detection decisions. Across both studies and three response intervals, search times were shorter when cue-target pairs converged, namely right facing facial prime and target at the right-hand location compared to cue-target pairs converging at the left side. The front facing baseline condition did not yield search differences between the visual fields. Eye movement data obtained in the second study confirmed that face position drove initial gaze movement and that left and front facing primes resulted in virtually equal exploration patterns. We speculate that because front faces do not prime any directionality, they induced the habitualized left-right attentional scanning as did left facing primes. Interestingly, first saccade within trial was faster to the visual field opposite to the direction implied by the prime. Overall saccadic and fixation behavior was to the right, that is, a higher number of saccades and fixations was made to the right following a right facing prime and a target embedded on the right target set. These findings suggest that asymmetries in visual attention and detection are highly dependent on the rightward spatial bias driven by the habitualized reading and writing direction..

Session      **Writing and Reading**

Time          Wed, Sept. 5th, 15:00

Room         D

Cristina Mendonça, André Mata, and Mário Boto Ferreira

## The Social Amplification of the Denominator Neglect

Some people, when confronted with two ratios (e.g.,  $1/10$  vs.  $8/100$ ), seem to neglect the denominators of the ratios and make decisions based on those ratios mostly as a function of the comparison between the numerators of the two ratios (Denes-Raj & Epstein, 1994). We aimed to investigate 1) whether this denominator neglect could have an impact on the way people recall the ratios, and 2) whether this impact on recall could accumulate if the recalls were given to other participants, using Bartlett's (1932) method of serial reproduction. More specifically, we postulated a social amplification of bias hypothesis, under which we expected distortions to accumulate as the information passed from one participant to the next, benefiting the option with the originally higher numerator and in detriment of the option with the originally lower numerator. To test this hypothesis, participants in this experiment read and made decisions in problems that involved ratios (e.g., ratios of consumer satisfaction towards two cars). After reading and answering the full set of problems, participants were asked to recall and write down the problems so that another participant could then read them. These problems were, in fact, transmitted to other participants, using Bartlett's (1932) serial reproduction paradigm, with three generations of 40 participants each. An initial exploration of the data revealed that 1) distortions of the numeric information were sometimes very large, leading to widely discrepant standard deviations and 2) sometimes the ratios were recalled as absolute numbers. As such, we coded participants' recalls as to whether the option with the originally higher numerator had higher (1), equal (0), or lower (-1) recalled ratios or frequency (in the cases where the comparison of ratios became a comparison of absolute numbers) than the option with the originally lower numerator. As generations progressed, the distortion of the numeric information led to an increase of recalls in which the ratio or frequency was more favorable to the option initially with the highest numerator than to the option initially with the lowest numerator. This effect then had an impact on participants' decisions, such that generation led to an indirect increase in the preference towards the option with the initially higher numerator, mediated by the increase in recalls in which the option with the original higher numerator had a higher ratio or frequency than the option with the original lower numerator..

Session      **Judgment and Decision Making 1**

Time          Wed, Sept. 5th, 9:00

Room         A

Corinna Michels

## Why people long to travel the world – Investigating lay beliefs about ‘Fernweh’

Backpacking around the world or traveling in the proximity to one’s home are only two possibilities of going somewhere else. Facing this options, there seem to be difference in the extent to which individuals prefer the unknown and why they do so. Why do some people long to travel to foreign places? How can this longing be described? And which thoughts and behaviors result from experiencing the desire to go somewhere else? To shed light on these questions, the current project studies lay people’s conceptualization of Fernweh from a psychological perspective. The German term ‘Fernweh’, describes the longing and aching for distant places. It seems to be related to the concept of wanderlust although it not only covers the joy of traveling. Instead synonyms like ‘craving for travel’ also suggest a possible dissatisfaction with the current surrounding involved in Fernweh. Even though previous research has addressed other types of longing, such as nostalgia (Sedikides, Wildschut, Arndt, & Routledge, 2008), Fernweh, as the longing for distant places, has mostly been neglected in past research. Still, focusing on this longing might provide valuable insights into travel and holiday preferences and resulting effects on well-being, emotions, and self-perception. This project aims at providing a first understanding of Fernweh by assessing lay people’s conceptualizations using a data-driven approach. To do so, 197 German participants were asked online to provide (1) a definition of what they consider Fernweh to be and to list (2) thoughts and feelings, (3) personality characteristics and (4) behaviors that they associate with this term. These open-ended answers were then merged into a list of single exemplars and content-coded by a scheme suggested by Hepper, Ritchie, Sedikides, and Wildschut (2012). The results indicate that mentioned exemplars can be grouped in thirty-eight distinct categories. Restructuring these categories in line with the aforementioned questions, participants (1) defined Fernweh to be an urge or longing for different and idealized places that can be both, specific as well as unspecific. Fernweh is further associated with various types of (2) thoughts and feelings and (3) personality characteristics. It comes along with a dissatisfaction regarding the current place, the wish to escape the routine, and the attempt to forget problems. Further associated characteristics are restlessness, helplessness, and melancholy but also anticipatory joy and excitement related to traveling. Expectations such as looking for a new beginning, finding one’s true self and happiness and independence in a new surroundings were mentioned. In terms of (4) behaviors related to Fernweh, participants indicated the creation of travel plans and traveling itself but also daydreaming and recalling memories. In sum, Fernweh appears to be composed of two double sided factors. For one, it represents an attraction to unknown places including anticipatory joy but also dissatisfaction with the current situation described by melancholy and helplessness. For another, resulting behavior can be characterized as following the desire to travel by engaging in holiday preparations and travelling itself, however Fernweh can also trigger compensatory behaviors..

Session      **Social Emotions 2**

Time          Wed, Sept. 5th, 12:00

Room         B

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Stefanie Miketta and Malte Friebe

## **Text-Based Inferences About Fictional Characters: Do We All Imagine the Same Hamlet?**

During reading, people often develop elaborate, lifelike mental images that can be even more detailed than the text itself. This phenomenon is known from research on spatial and temporal situation models and is thought to stem from readers drawing inferences based on the text. Surprisingly, little is known about whether such an inferential process also causes the development of mental images of literary characters' appearance. Three questions arise: (1) Do readers build mental images of literary characters even when the text does not contain any appearance-related information? (2) Given that inferences about persons are often built on stereotypes and thus socially shared, do different readers that are given no appearance-related information develop similar mental images of the same character, given a similar cultural background? (3) What is the specific social cognitive process behind this phenomenon? We investigated these questions in seven studies by asking participants to read unfamiliar texts that neither contained appearance-related information nor hints thereof (such as the protagonists' age). In Studies 1-6, after each text, participants chose amongst twelve pictures the one that most closely reflected their mental image of the respective protagonist. Studies 1-4 show that there was strong consensus in participants' choice of pictures despite the fact that they had not been given any appearance-related information about the protagonists. Studies 5&6 were designed to rule out the possibility that participants chose a picture because they liked the respective person best and not because of appearance-related inferences based on the content of the text. Participants read the same texts as in Studies 1-4, but chose from a set of pictures that was coupled with a different text in Studies 1-4. Results show again a strong consensus in participants' choice of pictures and that the modally chosen pictures from each set differed from those in Studies 1-4. These results suggest that (1) readers indeed develop mental images of fictional characters even in the absence of any appearance-related information and (2) different readers with a similar cultural background have similar mental images. To further examine question (3) and thereby the process behind this phenomenon, we conducted Study 7 and are currently conducting an eighth study. Based on the known fact that people subjectively perceive correlations between facial features and personality, we investigated in a first step whether people would infer personality traits from short fictional texts and whether they would show a consensus in their perception of protagonists' personality. In Study 7, participants read the same texts as in Studies 1&3 but instead of choosing one of twelve pictures they filled out a Big Five inventory for each protagonist. Similar to the findings of the previous picture-based studies, results show a consensus in participants' judgments of protagonists' personality and that those judgments significantly differed depending on which text participants had read before filling out the Big Five inventory. Since perceived personality traits can be mapped onto facial photographs, Study 8 currently investigates whether participants' consensus in picture choice is mediated by their perceptions of the protagonists' personality..

**Session      Writing and Reading**

**Time          Wed, Sept. 5th, 14:30**

**Room         D**

## **No Pain, No Mercy? Effects of Emotional Victim Feedback on Aggressive Behavior**

Aggressive acts are carried out with the intention to harm another person. Consequently, the aggressor has to monitor the victim to match perceived and desired harm doing for a regulation of aggressive acts. There is an ongoing discussion whether the aggressor wants to see the victim suffer in a comparable way i.e. suffering hypothesis or if the aggressor wants to deliver a particular message i.e. understanding hypothesis with revenge punishment. In two studies, we modified a competitive reaction time aggression paradigm that included controlled emotional victim feedback via video clips. The clips were produced for this line of research specifically. All video were pre-rated ( $N = 89$  per set) and selected due to the following criteria: high mean intensity ratings with no overlap of the 90% confidence interval in each emotion dimension. To create a competitive setting, participants were instructed to play an online reaction time (RT) game against another participant located at a different university in Germany. The RT task is a modified version of the Taylor aggression paradigm (Taylor, 1967) in which the winner of a round punishes the loser with a noise blast. Revenge punishment is indexed by the choice of volume settings (1-5). Punishment was followed by a short video clip featuring three distinct emotional reactions of the opponent: anger, sadness (as indicators of understanding) and pain (suffering), as well as neutral displays (as control). We compared the punishment volume that was selected by the aggressor in the trials preceding and following the emotional victim feedback. In Study 1 we found a significant effect of emotion display on punishment volume,  $F(3,132) = 7.45$ ,  $p < .001$ ,  $\eta^2_p = 0.15$ . Planned contrasts revealed a significant decrease in punishment followed by pain displays ( $p < .01$ ). Study 2 additionally disambiguated the meaning of the opponent's anger expression to punishment. Results of Study 2 replicated the overall effect of victim feedback  $F(3,135) = 4.66$ ,  $p < .01$ ,  $\eta^2_p = 0.09$  as well as the decrease in punishment followed by pain displays ( $p < .05$ ) but also showed a decrease in punishment for all displays paired with low opponent anger feedback. The findings suggest that emotional reactions of the victim regulate revenge-seeking motivations with suffering displays resulting in the largest downregulation of punishment. In sum, we found evidence supporting both understanding and suffering feedback. An additional pre-registered study to investigate the interaction between suffering displays and understanding messages is currently in preparation..

Session	<b>Social Emotions 3</b>
Time	Wed, Sept. 5th, 14:00
Room	B

Sara Mosteller, Larissa K. Samuelson, Sobanawartiny Wijekumar, and John P. Spencer

## Exploring the Neural Mechanisms of Communication and Cooperation in Children and Adults

Early learning of symbolic information occurs in a social context, but little is known about the socially grounded neural and behavioural dynamics that enable communication between children and their parents. Our current project explores relationships between social responsiveness (as measured by the Social Responsiveness Scale, SRS-2), and individual differences in cooperative behaviour between parents and children ages 2.5-4.5. We are also testing pairs of adult friends as a reference group. We have adapted a paradigm for novel noun learning developed by Samuelson, Smith, Perry and Spencer (2011) to a hyperscanning paradigm (Cui, Bryant & Reiss, 2012). Children and parents, or adult friends, are seated across from one another at a table. The parent then teaches the child the names of novel toys. An experimenter tests the child by presenting the objects in pairs and asking the child to retrieve one object by name. To explore individual differences in cooperation with the same participants, each dyad plays a cooperative game of Jenga, in which their joint score is based on how many blocks they can remove from the tower as a team. During these tasks, we are measuring coordinated brain activity between a parent and child using simultaneous fNIRS in pairs of participants. We are also measuring where each participant is looking using head-mounted eye-tracking. An analysis of the noun-learning task showed that, when presented with 6 word-object mappings, preschool aged children learned an average of 3 new words (50%) and that the number of objects learned by each child ranged from 2-4. Adults initially learned all of the new words but were variable in their later retention of the mappings in a production task where performance ranged from 50-100%. We are currently examining differences in cooperative behaviour as participants played the Jenga game, including visual joint attention during turn-taking and following the rules of the game. Ongoing analyses are examining the social dynamics that underlie the differences between words that were successfully learned and unlearned words for each dyad, as well as the developmental differences observed in the study. Although analyses are still ongoing, our goal is to test the following hypotheses using both behavioural data and analyses of the coherence in brain activity between participants during novel word-learning and Jenga playing. The first hypothesis is that visual joint attention during the session will be positively correlated with both the number of words learned and with the number of blocks correctly moved during Jenga before the tower falls. The next hypothesis is that successful communication of new words and coordination between participants in the game will each be positively correlated with synchronized brain activity between the parent and child/the adult friends in cortical regions underlying social cognition, semantic processing and visual processing. Finally, we expect that individual differences in social coordination will be inversely correlated with difficulties in social responsiveness indicated by the participants' survey (SRS-2) scores. In summary, this study probes both the neural and behavioural mechanisms of learning and cooperation in a naturalistic, interactive and developmental context..

**Session      Developmental Aspects**

**Time            Tue, Sept. 4th, 13:30**

**Room            B**

Andrew B. Moynihan, Eric R. Igou, and Wijnand A. P. van Tilburg

## **An Existential Psychological Perspective on The Interpersonal Functions And Consequences of Free Will Beliefs.**

We investigated the existential psychological functions and consequences of free will beliefs in two projects. In our first project, we investigated the relationship between belief in free will, belongingness, and meaningfulness. Previous research suggests that belief in free will helps to inhibit anti-social impulses (Baumeister, Masicampo, & DeWall, 2009; Stillman & Baumeister, 2010; Vohs & Schooler, 2008). As a result, belief in free will enables the creation of and participation in society (Baumeister, 2005, 2008). Consistently, we propose that belief in free will is associated with a sense of belongingness (e.g., Baumeister, Crescioni & Alquist, 2011). As previous research indicates that belongingness is a source of meaning in life (e.g., Baumeister, 2005; Stillman et al., 2009), we tested if belief in free will facilitates increased meaningfulness via feelings of belongingness. We conducted two preliminary, small-scale studies and a large-scale study using individual difference data to test our hypothesis. As expected, in Study 1, the positive relationship between free will beliefs and meaningfulness was mediated by feelings of belongingness. In Study 2, this effect emerged using alternative measures of free will belief and belongingness. In Study 3, these effects were again replicated using separate and composite measures of free will belief and belongingness. Finally, multiple group comparisons and meta-analyses confirmed that the proposed correlations and indirect effects were significant and consistent across studies. Our findings corroborate previous research claiming that belief in free will has important societal functions (Baumeister, Sparks, Stillman, & Vohs, 2008; Vohs & Baumeister, 2010). In our second project, we investigated if disbelief in free will indicates a sense of meaninglessness and consequently promotes conformity as an escape from this negative existential state. Our hypothesis was framed by the existential escape hypothesis (Wisman, 2006). This framework premises that escaping from adverse self-awareness can be used as a defense mechanism in response to meaning threats. Belief in free will is founded on the idea that people are responsible for their behavior (e.g., Feldman, Baumeister, & Wong, 2014). People who believe in free will derive meaning in life from these beliefs (Crescioni et al., 2016). Conformity refers to succumbing to external pressures and imitating others' behaviors. Sometimes, conformity involves a loss of self-awareness (e.g., Diener, 1979; Mullen, 1991; Zimbardo, 2007), which reduces perceived meaninglessness (Wisman & Koole, 2003). Expanding on previous literature (Alquist, Ainsworth, & Baumeister, 2013), we tested if disbelief in free will increases perceived meaninglessness and if people subsequently become more conformist to address this negative existential perception. We conducted three studies to test this hypothesis. In Study 1, experimentally induced disbelief in free will resulted in perceived meaninglessness. In Study 2, perceived meaninglessness correlated with conformity. Finally, in Study 3, perceived meaninglessness mediated the relationship between disbelief in free will and conformity, especially under high self-awareness, when these meaningless perceptions were most prominent. To our knowledge, our studies are the first to demonstrate an existential function of disbelief in free will on conformity..

**Session      Erroneous Beliefs and Conspiracies 2**

**Time          Tue, Sept. 4th, 14:00**

**Room         E**

Barbara Müller, Rinske Haverkamp, Silvia Kanters, Huriye Yaldiz, and Shuang Li

## Can tobacco warning labels improved to target adolescence? The effect of stressing negative social consequences

**Objectives.** Previous research showed that fear-inducing graphic warning labels lead to cognitive dissonance and defensive responses, resulting in more positive cognitions towards smoking (e.g., Glock, Müller, Krolak-Schwerdt, 2013; Peters et al., 2013). Less threatening, social-related labels do not elicit these defensive responses, making them more effective in preventing adults from smoking (Glock & Kneer, 2011). As the reference group is very important for teenagers, and as they focus strongly on social norms (e.g., Liao et al., 2013), these effects could be even stronger for this younger age group. Therefore, the present research investigated the effects of fear-inducing, social related, or no warning labels on cigarette packages, by measuring implicit and explicit attitudes towards smoking in teenagers. Thereby, we focussed on non-smoking teenagers for two reasons: a) they are legally not allowed to smoke, and b) prevent that they start to smoke in the first place is of crucial importance in the area of health psychology. And group of adults (both smokers and non-smokers) was assessed as control group so see whether earlier finding (e.g., Glock et al., 2013) could be replicated. **Methods.** We examined implicit associations and explicit cognitions towards smoking among 90 non-smoking teenagers (53 females, M age = 15.39, range 14-17 years), 105 non-smoking adults (89 females, M age = 20.30, range 17-33 years) and among 44 smoking adults (data collection ongoing, 33 females, M age = 20.16, range 18-26 years). All participants of these groups were randomly assigned to one of the three conditions: a) a health-related condition in which participants saw eight warning labels depicting negative health outcomes of smoking and which are currently used in Belgium, b) a social-related condition in which participants saw eight newly created warning labels depicting negative social outcomes of smoking, and c) a control condition in which no warning labels were presented. Subsequently, implicit associations between smoking and healthy behaviour were measured using a Single-Target Implicit Association Test (ST-IAT; Bluemke & Friese, 2008). Explicit cognitions towards smoking were measured by an explicit attitude questionnaire (Glock et al., 2013) and five smoking-related risk perception items (Glock, Müller, & Ritter, 2013). **Results.** Overall, adults had more positive implicit associations about smoking compared to teenagers. Furthermore, the main effects of warning labels on implicit associations were consistently significant in all three groups: participants in the control conditions had a stronger negative implicit association about smoking, while participants presented with health-related and social-related warnings had a more positive implicit association about smoking. No interaction effect was found, Furthermore, no differences were found on explicit attitudes nor smoking-related risk perception. **Conclusions.** Being confronted with health-related or social-related warning labels can have unintended negative consequences: implicit associations between smoking and healthy behaviour become stronger. Surprisingly, it seems that no warning labels could lead to more effective smoking prevention as implicit associations remained negative for all three groups. Further research should focus on the underlying processes of these contradictory effects to understand how defensive responses could be avoided to improve smoking prevention programmes..

Session      **Preferences and Consumption 2**

Time          Mon, Sept. 3rd, 14:30

Room         E

## Truth Feels Easy: Truthfulness of Information Enhances Perceptual Fluency

Information that feels easy compared to difficult to process (processing fluency) is more likely to be perceived as true rather than false (truth effect, e.g., Reber & Schwarz, 1999). To explain this truth effect, it has been argued that people have learned a positive association between truth and processing fluency (e.g., Unkelbach, 2007). More specifically, it has been speculated that true information is easier to process than false information (i.e., truth and fluency are positively associated) and that reversing this link leads individuals to infer that easy to process information is more likely true and difficult to process information is more likely false (reverse inference). Experiments on the truth effect generally focus on the reverse inference (i.e., they show that fluency influences truth judgments) and take the precondition that truth influences fluency for granted. The current research investigates this precondition of a positive association between truth and processing fluency in more depth. More specifically, we test whether true information is easier to process than false information. In three studies, we tested this notion with different forms of information and different measures for processing fluency, focusing on perceptual fluency. We presented participants with statements or calculations that were either true or false and for which truth or falsehood was either generally known or unknown. In Study 1, participants found statements of the form “city A is in country B” generally known to be true easier to read than those generally known to be false (e.g., known-true: “Rome is in Italy”; known-false: “Rome is in Cuba”). In Study 2, the same effect was found for known-true versus known-false calculations of the form “ $A \times B = C$ ” (e.g., known-true: “ $1 \times 2 = 2$ ”; known-false: “ $1 \times 2 = 8$ ”), with calculations generally known to be true being easier to read than those generally known to be false. In Study 3, participants found it easier to listen to calculations generally known to be true than to calculations generally known to be false. No such differences were found for statements or calculations for which truth versus falsehood is generally unknown in any of these studies (e.g., unknown-true: “Tiyas is in Syria” and “ $523 \times 148 = 77404$ ”; unknown-false: “Tiyas is in Jordan” and “ $523 \times 148 = 77024$ ”). True information thus seems to be easier to perceive than false information, provided that truth and falsehood are known. Using visual as well as acoustic stimuli, we were able to find this effect for two different forms of perceptual fluency. These results shed further light on the relation between (judged) truth and processing fluency and provide further evidence for the stance that people use processing fluency as a cue for truth because of a learned positive association between the two. Furthermore, these findings contribute to understanding more about the validity of processing fluency as a cue in truth judgments..

Session	<b>Fluency Effects</b>
Time	Tue, Sept. 4th, 9:30
Room	C

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Mayan Navon and Yoav Bar-Anan

## Attitude generalization in impression formation

Stereotypes are beliefs about traits and other attributes possessed by members of a specific social group. Stereotypes influence deliberate judgment of individuals unless people receive individuating information about the target person. There is some evidence that individuating information does not influence or has little influence on automatic judgment. That is, beliefs about the social group might have a larger effect on the automatic judgment than on the deliberate judgment of an individual. However, the findings so far are inconsistent and were all collected in studies that examined the effects of pre-existing stereotypes. Stereotypes are not always accurate and motivation to avoid bias (or to maintain social identity) can influence people's intention to use stereotype knowledge. In the present research, I test the effect of accurate knowledge about the typical social group members on the deliberate and automatic judgment of an atypical group member. So far, I conducted one study (N = 300). Participants read behavioral information about four members of each of two groups. In one group, three people performed positive behaviors and one person performed negative behaviors. In the other group, three people performed negative behaviors and one person performed positive behaviors. After learning about the members of both groups, I measured participants' evaluations of individuals from each group using the Implicit Association Test (the IAT) and self-report. Half of the participants evaluated two typical group-members (one from each group) and the other half evaluated the two atypical group members (one from each group). I found that only the information about the person and not the information about the person's group influenced deliberate evaluation. Similarly, the IAT scores showed preference toward the positively portrayed target. However, when the preference was measured with the IAT, the preference for the positively portrayed atypical group member over the negatively portrayed atypical group member was smaller than the preference for the positively portrayed typical group member over the negatively portrayed typical group member. In other words, unlike self-reported evaluation, the IAT was sensitive to both the information about the individuals and the information about the typical group member (more precisely, the information about the majority of individuals in the individual's group). These results are inconsistent with studies that found no reduction by individuating information of the effect of stereotypes on automatic evaluation. Yet, the results still show that automatic evaluation is more sensitive than deliberate evaluation to the evaluation of a person's group, relatively to information about the person herself/himself. In my next studies, I will test what factors moderate the relative effect of accurate information about the group and accurate information on deliberate and automatic evaluation. I will manipulate the level of individuating information provided about each group member, and will also manipulate participants' processing goals in the learning task (e.g., form an impression of each member versus an impression of the group as a whole)..

<b>Session</b>	<b>Attitudes</b>
<b>Time</b>	Tue, Sept. 4th, 9:00
<b>Room</b>	B

## **Toward an embodied and situated view of social interaction: Approach/avoidance behaviors and evaluative processes**

Approach and avoidance behaviors are key guides of social interaction. They are not only functional responses to others but they also influence the evaluations they make of them. Hence, performing approach behaviors (aiming to reduce the distance between the self and the other) improves evaluation of the other compared to avoidance behaviors (aiming to increase the distance between the self and the other; Cacioppo, Priester, & Bernston, 1993). Considering the primacy of the body in evaluative processes, one could nevertheless regret that previous research has not examined approach/avoidance behaviors in a fully embodied and situated manner (Niedenthal, Arsalou, Winkielman, Krauth-Gruber, & Ric, 2005). Some work has developed procedures with whole body approach/avoidance behaviors (Fayant, Muller, Nurra, Alexopoulos, & Palluel-Germain, 2011; Harmon-Jones, Gable, & Price, 2011). However, the study of the influence of approach/avoidance behaviors on evaluation mainly relies on basic arm movements/positions (e.g., joystick movements) or the representation of distance change with target stimuli presented in an isolated way. Doing so, previous investigations of this effect do not fully capture the multiplicity of bodily and contextual cues during an ongoing behavioral interpersonal interaction. Therefore, we believe that conclusions about the influence of approach-avoidance behaviors on evaluation processes are still limited. To overcome this gap, we aim to examine the underpinnings of embodied and situated evaluative processes and establish the ecological validity of approach-avoidance influences on evaluation. We hypothesize that interpersonal approach behaviors, relying on ecological movements, improve evaluation of others compared to avoidance ones. We tested this hypothesis in four experiments in which participants had to greet individuals by approaching/avoiding them before explicitly evaluate them. We varied the nature of the individuals (pictures vs. virtual faces), the cover story (job interview vs. common social interaction), the moment of the evaluation (after or during the behavior), and the nature of the explicit evaluation item (judgment vs. gut feeling). In Experiment 1 and 2, we created an experimental apparatus allowing us to manipulate interpersonal approach-avoidance behaviors through chest incline. Participants greeted individuals by leaning their chest forward or backward before explicitly evaluating them. In Experiment 3 and 4, we manipulated approach and avoidance behaviors through postures. Participants had to explicitly evaluate the individuals while maintaining their chest leant forward or backward. Contrary to our hypothesis, results of the first three experiments showed that participants evaluate individuals more negatively when they approach than when they avoid them. This unexpected pattern is marginally significant in a meta-analysis conducted on the four experiments. We will discuss potential moderators and the necessity to take into account the embodied and situated ecological nature of evaluative processes during social interaction. To go further in the ecological examination of evaluative processes, we are using Virtual Reality in two ongoing pre-registered experiments to experimentally manipulate real embodied approach and avoidance movements..

**Session      Approach - Avoidance 1**

**Time          Mon, Sept. 3rd, 12:00**

**Room         B**

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Michał Parzuchowski, Wiesław Baryła, Olga Białobrzeska, and Bogdan Wojciszke

### **The malleability of self-knowledge: The end of history illusion reversed**

According to the “end of history illusion” (Quoidbach, Gilbert, & Wilson, 2013) people declare relative stability in time of their current selves - people believe they had changed a lot in the past but would not change much in the future (just as if they have finally become the person they will be for the rest of their lives). In three studies (N = 652) we show that agentic and communal qualities (as well as people's self-esteem) are judged to be malleable in a linear manner (Dweck & Legget, 1988). In Study 1 we asked participants (N=197) to fill in the self-esteem questionnaire as if they were describing their past-selves (five years ago), today or in five years time from today (order was counterbalanced). Participant's responses expressed linear trend in all three measured areas (ascription of agentic & communal traits and general self-esteem). People declared they were much worse in the past than they are now, while they felt they will be their own best in the future. Interestingly, this effect was not replicated in a study when time perspective was manipulated between participants (Study 2; N=199) - eliciting an inverted U shape (while not showing any evidence for the end of history illusion). Linear trend replicated in Study 3, where we used more powerful design (N=256) and included also negative traits. This pattern of results is not supporting the end of history illusion. Instead, it is consistent with the idea of presumptiveness of communal self-knowledge and self-esteem. Our results shed new light on the process of retrospection (and prospection), self-malleability and the motive of self-enhancement..

Session      **The Self**

Time          Wed, Sept. 5th, 14:00

Room         C

Andrei Iulian Pinteá, Devin G. Ray, and Sarah Gomillion

## How do people explain others forgetting them? Attributional moderation of the interpersonal consequences of being forgotten

Background: Being forgotten or remembered by others provides powerful relational signals in social interaction. Specifically, being forgotten reduces interpersonal importance and predicts negative relationship outcomes (e.g., relationship closeness). However, no work to date has examined the attributional explanations that targets of memory provide for memory failure, although the meaning and consequences of being forgotten likely hinge on such attributions. Three studies investigated the attributions targets made for memory failure and their moderating role on importance and relationship closeness after being forgotten. Methods : The present research employed both naturalistic (Study 1) and experimental (Studies 2 and 3) paradigms to examine attributions. Study 1 (N=56) used a daily diary method to gain insight into people's experiences and explanations of being forgotten in their daily social interactions over the course of 14 days. Study 2 was an experimentally controlled replication of Study 1 where the attributions emerging from participants' open-ended explanations of why others forgot them in the diary data were manipulated. Participants (N=325) read a vignette in which one friend either remembered or forgot social information about the other. Variations of this vignette compared forgetting paired with a relational explanation (lack of investment in the relationship), forgetting paired with non-relational explanations (busyness or forgetfulness), forgetting with no explanation, and remembering. Study 3 extended the investigation to a more applied direction by examining medically-based explanations for memory failure. Study 3 (N=258) employed the same paradigm as Study 2, with the exception that variations of the vignette compared forgetting paired with a medical explanation (early onset dementia), forgetting paired with a dispositional explanation (forgetfulness), forgetting with no explanation, and remembering. Results: Results across these methodologies converged to show that (a) participants preferred non-relational attributions (dispositional or situational) for forgetting; (b) these non-relational (vs. relational) explanations for forgetting reduced the damage to interpersonal importance and generally reduced the damage to felt and perceived closeness; and (c) this reduction was incomplete: being forgotten had a small but reliable damaging impact on the outcome variables despite mitigating attributions. Further, Study 3 also showed that medical explanations were no different from other non-relational explanations in their damage to importance, but they did alleviate the damage to perceived closeness relative to non-relational explanations. Conclusions: Results show that people seem to have a strong pro-relationship default when explaining being forgotten. These mitigating attributions, however, reduce but do not eliminate the damage caused by being forgotten, making the experience of being forgotten at least partially aversive. Additionally, medical explanations for forgetting seem to operate in a similar way to other mitigating attributions. This raises troubling implications for how medically-caused memory failure could impact family members and support workers in care roles. On the whole, the present work offers initial insight into the meaning and interpersonal relevance of social forgetting for the target of memory..

Session      **Impression Formation**

Time          Wed, Sept. 5th, 11:00

Room        E

Sara Pireddu, Michela Menegatti, and Monica Rubini

## **The burden of women's face appearance: How morality, competence, as well as attractiveness perceived from female candidates affect their chances of getting a job.**

The present work examined the role of facial first impression in harming women's employment opportunities. The impact of appearance on workplace assessments is well documented (e.g., Hosoda, Stone-Romero, & Coats, 2003). For instance, attractive job applicants are preferred over less attractive applicants with similar qualifications (Dipboye & Dhahani, 2017). Recent research has demonstrated that people also infer from face appearance whether a person is trustworthy, intelligent, aggressive, etc. (Willis & Todorov, 2006), and that these inferences affect their decisions in several social domains (Todorov, Olivola, Dotsch, & Mende-Siedlecki, 2015). Broadly speaking, social judgment is mostly based on two dimensions: morality and competence (Abele & Wojciszke, 2014). While moral information is prominent in forming global impressions on others (Brambilla & Leach, 2014), competence seems to be more relevant than morality in the work context (Brambilla, Rusconi, Sacchi, & Cherubini, 2011). Notably, it has been shown that work evaluations of men are only based on their competence, whereas women are judged for both their competence and morality (Moscatelli, Menegatti, Ellemers, Mariani, & Rubini, under review). On this basis, we investigated whether morality and competence perceived from applicants' faces could affect their likelihood of being selected and whether this effect could vary as a function of their gender. Moreover, we explored the role of attractiveness as a mediator of the effects of morality and competence on male and female applicants' selection likelihoods. In Study 1, 214 (106 females) participants were provided with a brief CV with a photo of a female or a male applicant for a temporary job position. Faces depicted in the photos (Lundqvist, Flykt, & Öhman, 1998) varied in the level of perceived trustworthiness and intelligence (Oosterof & Todorov, 2008), which are traits related to morality and competence judgment dimensions respectively (Leach, Ellemers, & Barreto 2007). Respondents were asked to evaluate applicants on their morality, trustworthiness, competence, intelligence, attractiveness, and to rate how much they would select them. Results showed that applicants with faces exhibiting higher trustworthiness and intelligence according to Oosterof and Todorov (2008) were perceived as respectively more moral and more competent, than applicants with lower trustworthiness and intelligence. Two moderated mediation analyses revealed that attractiveness mediated the effect of both morality and competence perceived from faces on selection decisions. However, applicants' gender moderated this effect, so that attractiveness acted as mediator only for female applicants. In Study 2, 150 (66 females) participants were provided with the same materials described above. They were asked to rate the extent to which each applicant would behave in a competent and moral manner in his/her work, and their likelihood of being selected. Two distinct regression analyses showed that competence was the only predictor of men's selection likelihoods, whereas female's selection likelihoods is based on morality, competence, in addition to their attractiveness. Overall, these findings highlighted that women not only have to be (Moscatelli et al., under review), but also to appear better than men on multiple judgment dimensions to be selected for a job..

**Session      Gender and Identity 1**

**Time          Tue, Sept. 4th, 10:00**

**Room         D**

**Influence of threat to personal control on norm interest, detection and following. Social and cognitive underpinnings.**

According to the group-based control model (Fritsche et al., 2013), people whose sense of personal control was threatened aim to restore it on a group level. This tendency can result in increased ingroup bias, enhanced norm following intentions and greater support for the groups that people are already members of (Fritsche et al, 2008, 2013). The aim of our studies was to check how control threat influences willingness to join new, agentic groups, as well as whether it increases interest in group norms and intentions to follow them. In the first study we found that control threat increased interest in normative (but not non-normative) information, but the pattern was visible only among those individuals, who believed in high efficacy of their ingroup. Similar relationship was found for norm following intentions – threatened participants were more likely to follow group norms, but again the effect was significant only for those, who perceived their ingroup as efficacious. In the next study we aimed at replicating the results and added behavioral measures of engagement as well as a norm detection task (based on the Signal Detection paradigm). Again, we found an interaction between control manipulation and perceived ingroup efficacy on norm interest. Apart from that, control threat increased norm following intentions and willingness to devote participants' free time for the new club. Interestingly, in the low control condition we also found evidence for illusory norm perception. Control threat significantly increased the false alarms rate, which means participants were more likely to see signal (ingroup norms) among noise (not ingroup norms). We believe that our results add to research on group behaviors, by showing that after facing control threat people are more interested in joining new agentic groups and acting as its members. Apart from that we found preliminary evidence for motivated norm perception after control threat resulting in exaggeration of existing group norms..

Session      **Interpersonal Processes**

Time          Wed, Sept. 5th, 9:30

Room         E

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Johannes Prager and Klaus Fiedler

## **Comparing Impression Formation from Sequential Self-Truncated Trait Samples to Yoked Controls**

Inferring impressions from sequentially observed samples can be considered a fundamental task of everyday judgment and decision making. In a series of studies we used a paradigm of judging virtual persons (cf. Asch, 1946) by being presented with traits sampled at random from an underlying trait-population. When participants are asked to truncate the sampling process whenever they have seen enough information for providing a response, they rely on a primacy effect caused by ecological sampling principles. Small information samples are much more likely than large ones to show clear-cut and extreme information. If that is the case, participants likely truncate information search. If information in the initially small sample is perceived to be ambivalent however, sampling is continued until some consistency or trend is visible. When participants can terminate sampling themselves, small samples tend to be judged more extreme than larger ones. However, cognitive processing of the ecologically defined input contributes to truncation of information search as well. Thus, presenting the very same samples to the same participants again or to another participant (yoked controls) will reveal noticeable regression of the described primacy effect. Changing the situation will cause participants not to see the same samples as equally clear-cut, and even more so, if situation and person are changed both. This regression phenomenon can only be attributed to cognitive processing dependent on person and situation, as the ecological samples remain constant..

**Session      Comparing impression formation from sequential self-truncated trait samples to yoked controls**

**Time          Wed, Sept. 5th, 9:00**

**Room         E**

Aneja Prerna

### **Cultural differences in dyadic interaction using head mounted cameras**

Previous work shows that shared attention between infant and caregiver underscores the development of language and supports social interaction. To date, however, these interactions have been studied extensively in western societies. Ethnographic research shows that socialisation beliefs and goals differ across cultures, and that culturally-mediated social interactions with caregivers influence the attention strategies of the child. Parents in Western countries adopt a pedagogical perspective, where the parent accepts the responsibility of teaching and shaping the child's learning. In non-western traditional societies, the role of the parent is to protect and nurture while the child is responsible for gathering knowledge. Here, we examine how attention is distributed in dyadic interactions in India and the UK using head mounted cameras. We recorded a ten-minute naturalistic toy-play session with 60 mother and infant dyads (six-month-olds) in India and UK. For preliminary analyses (N=10), we coded infant's and mother's total looking time at the face of the partner, toys, and at their own or the partner's hands while manipulating an object. Overall infants spend the most time looking at toys. Faces also captured attention; Indian infants and mothers spent more time looking at faces than British infants and mothers. Indeed, British infants spent more time looking at toys in their own hand than at mom's face. Most dramatically, there was an asymmetry in who was holding the toy. Indian infants spent more time looking at the toy in mom's hand than in their own hand because moms tended to hold the toy more frequently, while British infants spent more time looking at the toy in their own hand than in mom's hand because moms tended to hand the toy over. This may reflect cultural differences in parent expectations regarding the role of each actor in the dyad. The coding for Joint Attention is underway (expected completion June 2018). The results from Joint Attention will help us tap into the cultural differences that lead to the state of Joint Attention..

**Session      Developmental Aspects**

Time            Tue, Sept. 4th, 14:00

Room           B

Jenny Roth, Melanie C. Steffens, Vivian L. Vignoles, and Fritz Strack

## **Integration of in-groups into the self-concept: A model based on cognitive consistency principles**

The present talk introduces a model based on cognitive consistency principles to predict how identities are integrated into the self-concept, with consequences for intergroup attitudes. The model specifies four concepts (self-concept, stereotypes, identification, and group compatibility) as associative connections. The model builds on two cognitive principles, balance-congruity and imbalance-dissonance, to predict identification with social groups that people currently belong to, belonged to in the past, or newly belong to. More precisely, the model suggests that the relative strength of self-group associations (i.e., identification) depends in part on the (in)compatibility of the different social groups. Combining insights into cognitive representation of knowledge and intergroup bias, we further derive predictions for intergroup attitudes. We suggest that intergroup attitudes alter depending on the relative associative strength between the social groups and the self, which in turn is determined by the (in)compatibility between social groups. This model unifies existing models on the integration of social identities into the self-concept by suggesting that basic cognitive mechanisms play an important role in facilitating or hindering identity integration and thus contribute to reducing or increasing intergroup bias. I will present two studies that corroborate the main predictions of the model. In Study 1 (N = 73), we asked people about either two compatible or two incompatible social groups they belong to and assessed identification with the in-groups as well as intergroup attitudes. Results demonstrate that discrepancies in explicit (but not implicit) in-group identification and intergroup bias are stronger when in-groups are incompatible than when in-groups are compatible. Furthermore, discrepancies in in-group identification mediated the effect of (in)compatibility of in-groups on intergroup attitudes. Study 2 (N = 68) demonstrates that when people show strong discrepancies in identification between two in-groups, both in-groups are perceived as more incompatible than when they show weak discrepancies in in-group identification indicating that the relationship between group (in)compatibility and in-group identification is bidirectional. Together, both studies support the model's prediction that integration of in-groups into the self-concept and (in)compatibility of the social groups go hand in hand with and have consequences for intergroup attitudes. Implications of the research for contemporary societal issues such as geographical mobility of people will be discussed..

Session      **The Self**

Time          Wed, Sept. 5th, 14:30

Room         C

Selma Carolin Rudert, Matthias D. Keller, Mirella Walker, and Rainer Greifeneder

## **Excluding the cold and the careless: Perceived personality traits affect the risk of getting ostracized**

Ostracism is a common phenomenon in societies. An important question is why individuals choose to ostracize others and which individuals are at a high risk of getting ostracized. Here, we investigate the (perceived) personality of the target as a potential reason that places some individuals at a higher risk of getting ostracized. We predict that especially highly disagreeable and careless individuals should be at a high risk of ostracism. This is because highly disagreeable persons represent a threat to the norms of the group, whereas careless individuals represent a potential burden. We investigate our hypotheses in three studies: In Study 1, we tested whether the Big five personality dimensions predict self-reported ostracism in the Innovation Sample of the Socioeconomic Panel (SOEP-IS, representative German data panel,  $n = 2744$ ). In Study 2, we presented Prolific Academic participants with targets characterized by different personalities (Hales et al, 2016) and compared participants' willingness to ostracize these targets ( $n = 722$ ). In Study 3, we determined the stereotypical face of a person that others felt very likely or very unlikely to be ostracized using a reversed correlation approach and face modelling (Keller et al., 2017; Walker & Vetter, 2016). Students then rated the resulting faces on the Big Five dimensions ( $n = 52$ ). In all three studies, we found evidence for the predicted central role of (perceived) agreeableness and conscientiousness of the ostracized target. More specifically, individuals low in agreeableness and conscientiousness report experiencing more ostracism (Study 1) and are also more likely to be intentionally ostracized by other individuals (Study 2). Moreover, the image that resulted from the reverse correlation task was rated as disagreeable and careless (Study 3). Relations between ostracism and the other personality dimensions were more complex: While introverted individuals reported getting ostracized more often, the ostracizing sources reported no respective intention to do so. In contrast, openness to experience was not (or even slightly positively) related to experienced ostracism, although sources reported an increased readiness to ostracize persons low in openness. Possible interpretations of these findings and consequences for the prevention of ostracism are discussed..

Session      **Stereotypes and Prejudice 1**

Time          Mon, Sept. 3rd, 15:00

Room         A

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Janna Katrin Ruessmann

## **Economic proxy decisions are influenced by the social relation between proxy and decision recipient**

Decision making on behalf of others (i.e., proxy decision-making) is a cardinal responsibility of numerous professions in modern societies. Individuals depend on their attorneys, financial advisors, doctors, and the like to act in their best interests and, especially, to make fair decisions on their behalves. However, individuals consulting a professional proxy decider may have all kinds of relations to the proxies and, under certain circumstances, may prefer to remain anonymous. This raises a crucial question for social psychology: Does the social relation between proxy decider and decision recipient influence the fairness of proxy decision-making? For the aim of investigating this question, I chose the Ultimatum Game (UG) since it allows both an effective manipulation of the decision recipient's identity and of outcome distribution by exploring the decisions for unfair offers and hyper-fair offers. In the UG, unfair offers represent disadvantageous inequity, whereas hyper-fair offers represent advantageous inequity for the decision recipient. I manipulated the social relation between proxy and decision recipient by varying the social distance between them. In two experiments (total N = 235) participants were instructed to play a hypothetical UG and received offers that varied between 0 to 100 € in 10 € increments from a proposer endowed with 100 €. They were instructed to decide about the offers for either themselves, a close friend, or a stranger in the role of responder. Both factors, the offered amount and responder identity were manipulated within-subjects, with the sequence of all 33 resulting trials re-randomized anew for each participant. Manipulating responder identity in the UG affected participants' acceptance rates for hyper-fair but not for fair and unfair offers. This result is supportive of the literature on third-party punishment, since it suggests that proxy deciders act as a third-party who is motivated to punish unfair behavior, although they themselves have no payoffs at stake. Here, participants were more willing to accept hyper-fair offers for either themselves or a friend than for a stranger. Apparently, not the same norms of equality and fairness apply at all times and regardless of the target of a norm enforcement. A possible explanation for the present findings could be that participants deciding over hyper-fair offers for strangers focused more strongly upon the aspect of these offers being unfair to proposers and were hence unwilling to violate the norm of fairness, which should be tested in future research..

**Session Judgment and Decision Making 2**

**Time Wed, Sept. 5th, 12:00**

**Room A**

## **The newcomer effect: How body posture influences moral perceptions and pro-social behaviour towards refugees**

In this line of research, we were interested in the influence of standing stances on judgments of morality and pro social behaviour, particularly towards refugees. We argue that before refugees are properly integrated in the society, they spend a large amount of time in camps wherein one relies a lot on body language as a source of communication owing to language and cultural differences. This can thus impact relations between refugees but also how they are perceived by citizens who see them either in person or how they are depicted in the media. Thus it is important to know that the stimuli used in this research are pictures of real refugees living in Camp Moria, Lesvos, Greece (consent acquired). The variations in the standing stance were determined based on a pilot study wherein the standing stance of the refugee in a picture was manipulated within-subject with varying degrees of gap between their legs. The three levels of this variable were (i) standing with feet together, (ii) standing with feet slightly apart, (iii) standing with feet wide apart. We generally predict that those who perceive refugees as more 'humble' would in general be more motivated to help refugees, would find them more trustworthy and would be more accommodating to welcoming them in their community compared to those refugees who are perceived as more 'dominant'. In Study 1, 92 participants recruited online from the UK were randomly presented with the three standing stances along with a small passage about the refugee's origin and how long he had lived in a refugee camp. This was then followed by judgments related to morality, dominance, resource allocation and social distance. The results revealed a linear effect of standing stance wherein refugees portrayed standing with feet together (i) and feet slightly apart (ii) were perceived as more moral and less dominant than when the refugee was portrayed standing with feet wide apart (iii). Furthermore, the same trend was observed for donating resources and accepting the refugee in one's community. Finally, mediation revealed that the standing stance on its own does not predict social distance or resource allocation, but is mediated through morality perception of the refugees. Studies 2 and 3 are currently being conducted to replicate the pattern but at the same time examine behavioural measures of pro-sociability. This line of studies has huge implications for two reasons. One, it brings to forefront that not people are usually not aware of how a person's standing stance might influence the way judgments are made about that person. People can thus be strongly influenced by such postural nuances and it is imperative to understand the effect of the same. Furthermore, studying this in the context of the ongoing refugee crisis, we can contribute towards the knowledge of refugee integration in a widely different culture than theirs wherein the initial perceptions of a refugee could be influenced by some basic nonverbal aspects such as body postures..

Session      **Morality 2**

Time          Mon, Sept. 3rd, 15:00

Room         D

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Magda Saraiva and Margarida V. Garrido

## **False memories in bilinguals: Exploring the role of affective grounding**

The emergence of false memories has been extensively studied in monolingual speakers. Recently, a few studies have started to examine the influence of linguistic proficiency in the production of false memories. Specifically, these studies have tested individuals in their mother language (L1) and a in a second language (L2) in the production of false memories. Overall the results have revealed that more false memories are produced in L1 than in L2. However, in most of these studies the lists used were translated from English into the mother language of the participants. Translation of word lists may constitute a problem since the words most associated with a critical lure (CL) in one language may not be so in another language. This methodological problem can directly constrain the results since the associative strength is one of the variables that most influence the production of false memories. The main goal of the present study was to examine the emergence of false memories in Portuguese (L1) - English (L2) bilinguals. Moreover, based on the assumption that L1 is more affectively grounded than L2, the emergence of false memories should be higher in the native language, at least for those less proficient in L2. In a pilot study (N=84) we developed 9 word lists in L1 and 9 in L2, each associated with a CL, that were positive, negative or neutral in valence. In the experimental study using the DRM paradigm, bilingual participants (N=90) read the lists and completed a recognition task. Results revealed that correct recognition was similar in L1- L2, suggesting that participants were equally competent in both languages. However, as expected, false recognition was higher for L1 than L2. Importantly, L1 words associated with affectively laden CL produced more false recognition than those associated with neutral CL. Moreover, participants with higher L2 proficiency produced the same amount of false recognitions in both languages while participants with lower L2 proficiency produced more false memories in L1. Overall the results suggest differences in affective grounding between L1 and L2. Despite understanding the meaning of affective words in L2, participants experience them differently in L1 and L2..

Session      **Social Memory and Recollection**

Time          Tue, Sept. 4th, 14:00

Room        C

Mathias Schmitz and Vincent Yzerbyt

### **Explicit and Implicit Compensation: The Impact of Social Insertion**

Research on the compensation effect (Yzerbyt, 2016) reveals that social judgments often operate in such a way that one target is judged to be higher than another on one of the two fundamental dimensions of social perception (i.e. competence and warmth) is also perceived to be comparatively lower on the second dimension. One of the motivations that seems to underlie such a pattern is a concern for fairness among observers and, for the parties concerned, respect for the prevailing social norms of non-discrimination or a desire for self-assertion (Cambon & Yzerbyt, submitted; Yzerbyt et al., 2005, 2008). With few exceptions, most studies have focused on explicit judgments. In addition, researches on implicit judgments reveal several discrepancies. Based on a Brief IAT technique, we tested whether compensation is also manifest at the implicit level, even in situations that do not involve existing stereotypes. Experience 1 confirms that, faced with two novel groups differentiated on one of the two dimensions, observers compensate both implicitly and explicitly. On the other hand, Experiment 2 shows that if members of highly or weakly competent groups compensate on the explicit plane, they display ingroup favoritism on their favorable dimension in their implicit evaluation. These results shed new light on the question of the relationship between explicit and implicit compensatory judgments in terms of the social insertions of judges..

Session      **Stereotypes and Prejudice 3**

Time          Tue, Sept. 4th, 9:00

Room         A

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Mike Schreiber, Wilhelm Hofmann, and Simone Dohle

## Testing the $\Omega$ -Model: Justification of Effort in Daily Life

Whereas psychological research on effort justification suggest a positive relationship between task effort and task satisfaction, classical economic models assume a negative relationship between these constructs. To reconcile and merge these two research fields, the  $\Omega$ -Model is postulated. According to this model, the relationship between effort and satisfaction should be better described by a reversed-u-shaped curve than by a linear function. In the present study, the  $\Omega$ -Model was tested in the context of everyday activities using Experience Sampling . One hundred and ninety-six participants reported a total of 2272 activities from their daily lives and rated the amount of invested effort and the satisfaction with the resulting outcomes. Contrary to our hypothesis, the results showed that the relationship is not described by a reversed-u-shaped curve, but by a negative linear function ( $p < .001$ ). This represents a clear contrast to earlier findings on effort justification as well as the  $\Omega$ -Model postulated in this work and fits more closely to classical economic models. The negative relationship persists even when different moderators (personal relevance, goal motivation, effort domain, tendency to avoid effort, need for cognition) are taken into account. An interaction effect ( $p < .05$ ) was found for effort domain indicating that the negative relationship between invested effort and satisfaction is more pronounced when the task was rated as more mentally (vs. physically) demanding. Based on the results of the given study, suggestions are made for experimental designs to ensure validity of the findings and to examine the causal direction of the relationship between effort and satisfaction..

Session      **Self-Regulation and Mental Effort 1**

Time          Wed, Sept. 5th, 10:00

Room         D

Gün R. Semin, Roza G. Kamiloğlu, Monique Smeets, and Jasper H. B. de Groot

## **Fear Odor Facilitates the Detection of Fear Expressions over other Negative Expressions**

In a double-blind experiment, participants were exposed to facial images of anger, disgust, fear and neutral expressions under two body odor conditions: fear and neutral sweat. They had to indicate the valence of the gradually emerging facial image. Two alternative hypotheses were tested, namely a general negative evaluative state hypothesis and a discrete emotion hypothesis. These hypotheses suggest two distinctive data patterns for muscle activation and classification speed of facial expressions. The pattern of results that would support a discrete emotions perspective would be expected to reveal significantly increased activity in the medial frontalis (eyebrow raiser) and corrugator supercilii (frown) muscles associated with significantly decreased RT to only fear faces in the fear odor condition. Conversely, a pattern of results characterized by only a significantly increased corrugator supercilii activity together with decreased RTs for fear, disgust and anger faces in the fear odor condition would support an interpretation in line with a general negative evaluative state perspective. The data support the discrete emotion account for facial affect perception primed with fear odor. This study provides a first demonstration of perception of discrete negative facial expressions using olfactory priming..

Session      **Face Perception 2**

Time          Mon, Sept. 3rd, 14:00

Room         C

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Rita Silva, Tobias Vogel, Aurelia Thomas, and Michaela Wänke

## **The use of conceptual versus perceptual fluency is specific to the judgment dimension**

When making judgments about stimuli in their environment, people often rely on the subjective experience of ease that accompanies the processing of information, that is, the experience of processing fluency. A large number of studies show the pervasiveness of fluency as a metacognitive cue for judgments. Fluency affects outcomes as different as the beauty of a stimulus or the subjective validity of a statement. Furthermore, fluency is affected by factors as diverse as stimulus repetition or visual clarity. While several studies indicate that fluency sources and outcomes are widely interchangeable, in the present work we propose that the reliance on conceptual versus perceptual fluency as cues to inform judgments is specific to the stimulus dimension that is being assessed. Specifically, we propose that conceptual fluency is more informative for content-related judgments, but perceptual fluency is more informative for judgments related to perception. Two experiments (N = 476) tested this hypothesis by implementing a paradigm that allows the simultaneous and orthogonal manipulation of conceptual and perceptual fluency, and the judgment of content vs. perceptual stimulus dimensions, namely the truth value and the aesthetic appeal of statements. Conceptual fluency was manipulated by repeating the content of the statements. Perceptual fluency was manipulated through visual figure-ground contrast in which statements were presented. By manipulating repetition and visual contrast in an orthogonal fashion, it is possible to test whether individuals can dissociate the fluency signals resulting from two different sources and use one or the other selectively, according to their applicability to the target stimulus dimension. Based on the fluency-specificity assumption, we predicted that judgments of truth would be more influenced by repetition than by visual contrast, and that judgments of aesthetic appeal would be more influenced by visual contrast than by repetition. Results of the experiments support these predictions, showing the superiority of content repetition on judgments of truth, but the superiority of visual contrast on aesthetic judgments..

<b>Session</b>	<b>Fluency Effects</b>
Time	Tue, Sept. 4th, 10:00
Room	C

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Kevin J. M. Smith and Jenny Roth

### **Dominant or prestigious? Perceived warmth and competence and their relationship with perceived group status**

When are high status social groups perceived as dominant and threatening or as inspiring respect and deference? We present a model of group status perception suggesting that whether groups are perceived as dominant (using threats) or prestigious (inspiring respect and voluntary deference) is related to two basic dimensions of social perception, competence and warmth. Building on research showing that high status groups are perceived as highly competent, we predict that perceiving a group as competent is positively associated with perceptions of both high group dominance and high group prestige. We expect perceptions of group warmth, however, to be less positively related to perceived group dominance than to perceived group prestige, because the perception of being cooperative and willing to help is assumed necessary for attaining prestige, but is not necessary for or may even impede the exertion of dominance. Accordingly, our work investigates whether the perceived warmth of a group is more positively associated with perceiving the group as prestigious than with perceiving the group as dominant, thus replicating and extending prior research showing that groups and individuals high in prestige are perceived as both competent and warm. Results from two studies with a combined N of 172 participants mostly support our model. Perceptions of group competence were positively associated with perceptions of group dominance and (more strongly) group prestige. Perceptions of group warmth, however, were uniquely negatively associated with perceptions of group dominance. Furthermore, social groups that were perceived as high in competence but low (high) in warmth in previous studies were also perceived as being higher (lower) in dominance than in prestige. In sum, these studies demonstrate that perceived prestige and perceived dominance are differentially related to perceptions of group competence and group warmth. Potential reasons for the stronger relationship of competence with prestige than with dominance will be discussed..

Session      **Stereotypes and Prejudice 3**

Time          Tue, Sept. 4th, 9:30

Room         A

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Felix Speckmann, Christian Unkelbach, and Carlos Alós-Ferrer

## **Incentives as a tool to disentangle avoidable and unavoidable sources of bias in human decision making**

Seminal work by Kahneman and Tversky (1975) showed that normatively incorrect choices often occur because people decide heuristically, i.e., without investing enough time or effort. If this is true, then increased motivation through added monetary incentives for the correct choices should effectively lead to a reduction in cognitive bias. However, previous research shows that incentives are ineffective in reducing irrational choices (Camerer & Hogarth, 1999). To tackle this inconsistency in the literature, we propose to distinguish between different heuristics and biases based on the availability of voluntary control. If the correct choice rule is unavailable, increased motivation should not decrease the effect of bias. If the problem lies in the unwillingness to invest effort in information processing however, increased motivation should ameliorate decision making. To test these hypotheses, we conducted a study on the Moses illusion. This illusion is based on insufficient scrutiny of questions and investing too little effort before answering (e.g. answering “Two” to the question “How many animals of each kind did Moses take on the arch?” and overlooking the fact that it was Noah’s arch). Participants were assigned to one of three conditions: High incentives (30 cents per correct answer), low incentives (15 cents) or no incentives. Results show that an average payment of 160.5 cents in the low incentives condition lead to an increase in correct answers of 0.54 and an average payment of 381.6 cents lead to an increase in correct answers of 1.42 in the high incentives condition. Further research directions and implications are discussed..

Session      **Biases in Cognition and Action**

Time          Mon, Sept. 3rd, 11:00

Room         A

Maciej Taraday, Robert Balas, Justyna Sarzyńska, Patryk Łakuta, Iva Saban, Mateusz Mieszkowski, Adriana Rosocha, and Laura Osęka

## **Discrepancy between implicit and explicit self-esteem as a predictor of life satisfaction**

"Implicit and explicit self-esteem are assumed to be important factors for understanding psychological problems. Results by Creemers, Scholte, Engels, Prinstein & Wiers (2012, 2013) showed that implicit and explicit self-esteem interaction was associated with suicidal ideation. The size of the discrepancy between these two types of self-esteem was positively associated with depressive symptoms, suicidal ideation, and loneliness, but only for so called "damaged" self-esteem (i.e. relatively low explicit but high implicit self-esteem). There was no such effect for the opposite configuration of self-esteem measures (i.e. high explicit and low implicit) which authors call a "defensive" or "fragile" self-esteem.

In the presented study 427 participants (245 woman) took part. Measures of implicit (name-letter task; Hoorens, 2014) and explicit (Single-Item Measure; Robins, Hendin & Trzesniewski, 2001) self-esteem were taken, accompanied with predictions of life-satisfaction based on electronic traces from social-media activity (Facebook LikeIDs; Youyou, Kosinski & Stillwell, 2015) and self-description. As expected, results showed that "damaged" self-esteem was associated with lower life-satisfaction. It was also hypothesized that higher levels of self-description abstractness is negatively associated with explicit self-esteem and positively with implicit self-esteem (Tanis, 1999). In order to measure language abstraction we used the Linguistic Category Model dictionary (Semin & Fiedler, 1988) for the Polish language (Wawer & Sarzynska, 2018). Results are currently being analyzed.

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Session	<b>Indirect Measures 2</b>
Time	Wed, Sept. 5th, 11:00
Room	C

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David Tigges

## **Human Sexuality: Self-Reports Exaggerate Sex Differences**

Sex differences in human sexuality are one of the key factors in differentiating between theories of human sexuality and are among the most robust findings in all of psychological research. However, most of these reported findings are based on self-reports. Among other things, self-reports are affected by social desirability bias. In the current research, I used a multi method approach to demonstrate how these tendencies affect women more than men, leading to an exaggeration of sex differences in the literature of human sexuality. In the first study, I demonstrate how changing the format from first- to third-person reports affects women, but not men when asked about accepting a one night stand (casual sex) offer. In the second study, I showed participants photographs of different people. In condition a, three photographs of each person were presented at once, showing the person wearing either normal clothes, underwear, or nothing at all. Afterwards, participants were asked to rank the photographs in which they find the portrayed person to be most attractive. Women rated pictures in which men were wearing clothes or underwear as being much more attractive than photographs showing the same person naked. For men (viewing photographs of women), the preferences were much more balanced. A very different pattern emerged in condition b, in which participants were shown only one version of each person (either clothed, or in underwear, or naked). Which version of a person was shown was fully randomized between participants. Now, women rated the naked men as being much more attractive than the other two options, while men were not so much affected by this manipulation. In the third study I tackled the problem of social desirability more directly. I introduced the Stochastic Lie Detector (Moshagen, Musch, & Erdfelder; SLD) to the field of human sexuality. The SLD is based on the Randomized-Response Technique (RRT) and is designed to reduce tendencies of social desirability by offering the participants true anonymity. I asked participants whether they engaged in masturbation behavior, consumption of pornographic materials and/or casual sex experiences. While the SLD estimated that men do engage more in sexual activities than women, the SLD also estimated that women were much more likely to lie when it comes to their sexual activities than men. Taken together, these results demonstrate that self-reports exaggerate sex differences in human sexuality. Furthermore, the current investigation highlights the importance of good methods when investigating difficult areas of human behavior. Implications for theories of human sexuality will be discussed..

**Session      Gender and Identity 2**

**Time          Tue, Sept. 4th, 13:30**

**Room         D**

Jais Troian, Eric Bonetto, Florent Varet, Grégory Lo Monaco, and Fabien Girandola

## Priming Resistance to Persuasion decreases adherence to Conspiracy Theories

Conspiracist Beliefs (CB) are unverified and implausible allegations of conspiracy, according to which a preternatural sinister or a powerful group of people pull the strings of significant events (Aaronovitch & Langton, 2010; Brotherton, French, & Pickering, 2014). CB can have tremendous influence on individual behavior in a wide range of domains, such as health (Jolley & Douglas, 2014), environment (Jolley & Douglas, 2012; Study 2), acceptance of scientific knowledge (Lewandowsky, Gignac, & Oberauer, 2013) or voting intentions (Jolley & Douglas, 2012). Among the different approaches to CB adherence reduction, some have been based on McGuire's (1961) work upon resistance to persuasion (RP) though inoculation (Banas & Miller, 2013; Jolley & Douglas, 2014, Study 2). Such contributions demonstrated that providing individuals with counter arguments is effective. Yet, this strategy is limited because it requires specific arguments tailored against targeted conspiracist narratives. To overcome this limitation, this contribution proposes an alternative way to use RP to reduce CB adherence based on Uhlmann and Cohen's (2007) priming paradigm. Three studies, based on a 2 (Priming: RP vs. Control) single factor between-subjects design, were conducted to test whether a minimal priming of RP, by filling the Resistance to Persuasion scale (Brinol, Rukcer, Tormala, & Petty, 2004) would trigger a reduction of individual adherence to CB. First, a French version of the RP scale was successfully validated (online, N = 766), using exploratory (explained 46.2% of total variance, KMO = .84; Bartlett's test of sphericity:  $\chi^2 = 2194.77$ ,  $p < .001$ ) and confirmatory (CMIN = 244.88; CMIN/Df = 4.6; GFI = .95; RMSEA = .07; SRMR = .06; CFI = .91; NFI = .89; IFI = .91) analyses. Study 1 (N = 81) demonstrated that participants primed with RP (M = 1.87, SD = .73) had lower CB scores than control participants (M = 2.28, SD = .73),  $t(79) = 2.57$ ,  $p = .012$ ,  $d = .57$ . This effect was confirmed by two direct replication studies (Simons, 2014). Indeed, in study 2 (N = 205), the primed participants declared less adherence to CB (M = 2.74, SD = .78) than the control participants (M = 2.97, SD = .73),  $t(203) = 2.20$ ,  $p = .029$ ,  $d = .31$ . Because the effect was twice smaller than that of Study 1, another sufficiently powered study 3 was conducted. This one showed the same pattern: Participants in the priming condition had lower levels of adherence to CB (M = 2.49, SD = .75) than control participants (M = 2.76, SD = .72),  $t(263) = 2.92$ ,  $p = .004$ ,  $d = .36$ . The results of these three studies were finally meta-analyzed (Goh, Hall & Rosenthal, 2016). This procedure (N = 519) confirmed the effect of RP priming upon adherence to CB ( $d = .20$ ). These results provide first particularly robust evidence for an effect of Resistance to Persuasion priming upon CB adherence and open the way for research upon mediating and moderating mechanisms. Practical implications will also be discussed..

Session      **Erroneous Beliefs and Conspiracies 1**

Time          Tue 9:00

Room         E

Wijnand Adriaan Pieter Van Tilburg, Constantine Sedikides, and Tim Wildschut

## Adverse Weather Evokes Nostalgia

Four studies examined the link between adverse weather and the palliative role of nostalgia. We proposed and tested that: adverse weather evokes nostalgia (H1), adverse weather causes distress, which predicts elevated nostalgia (H2), preventing nostalgia exacerbates weather-induced distress (H3), and weather-evoked nostalgia confers psychological benefits (H4). In Study 1, participants listened to recordings of adverse weather conditions (wind, thunder, and rain, as well as neutral sounds) in a within-subjects design, and reported their level of nostalgia. In Study 2, we asked participants to record the weather, their level of distress, and their level of nostalgia on a daily basis for 10 days. We also obtained meteorological data for the corresponding time period. In Study 3, participants either listened to recordings of adverse weather (wind) or neutral sounds while carrying out either a nostalgic recall or cognitive load task. We tested if cognitive load, by preventing participants from recruiting nostalgia, would exacerbate the distress brought about by adverse weather. In Study 4, participants listened to recordings of adverse weather in a between-subjects design. We assessed nostalgia and its ensuing psychological benefits in the form of social connectedness, meaning in life, self-continuity, self-esteem, positive (and not negative) affect, and optimism. Results were generally consistent with hypotheses. In Study 1, adverse weather evoked nostalgia. In Study 2, perceptions of naturally-occurring adverse weather (in particular wind) were associated with increased distress, which predicted higher nostalgia. Perceived wind was linked with higher nostalgia independently of perceived fluctuations in temperature. Objective weather was linked with higher nostalgia, but only via corresponding weather perceptions. Stated otherwise, adverse weather conditions gave rise to matching weather perceptions, which were associated with elevated nostalgia. Furthermore, in Study 3, weather-induced distress was higher in the absence of nostalgia (i.e., under cognitive load) than in its presence; nostalgia softened the distress caused by adverse weather. Finally, in Study 4, adverse weather evoked nostalgia, which in turn conferred psychological benefits, namely social connectedness, meaning, self-continuity, self-esteem, positive affect, and optimism. Overall, our findings highlighted the soothing function of nostalgia in response to adverse weather. Our investigation pioneers a novel methodological and theoretical approach to the psychology of weather. With regard to methodology, our systematic approach to weather simulation through recordings can be readily implemented in online or laboratory research. Turning to theory, the pertinent literature has typically focused on attitudes towards climate as a whole (Corner, Whitmarsh, & Xanias, 2012) or on processing styles associated with the weather (often mediated by mood; Forgas, Goldenberg, & Unkelbach, 2009; Keller et al., 2005). Here, we examined the relevance of a regulatory resource, nostalgia. Rather than treating climate as an attitudinal object or prime, we assessed how people cope with actual weather conditions. Besides offering insights into nostalgia's palliative role in adverse weather, our findings contribute to understanding of weather-induced self-regulation on a broader level. We hope that our findings spark further interest in this area..

Session      **Social Emotions 3**

Time          Wed, Sept. 5th, 14:30

Room        B

Tina Annie Geziena Venema, Floor M. Kroese, Bas Verplanken, and Denise T. D. De Ridder

## **Habits vs. Nudges; the influence of externally triggered automatic processes on observed behaviour**

We all have habits that would we could do without, for example, to reduce our calorie intake or be a bit more aware of our social surroundings, instead of looking on our phones. Nudges have been shown to be a promising intervention tool to reduce unfavourable choices. Nudges supposedly work via an automatic unconscious route, by altering the choice architecture in such a way that the behaviour is steered towards the sensible behaviour without limiting or forbidding alternative options. Even though nudges are usually installed in public spaces, not all people that are exposed to them might be equally susceptible to the effect. We propose that habits are an important factor when it comes to the boundary conditions of nudge effectiveness. Habits are characterized as behaviours that have become automatic due to frequent execution in the same context. The context is regarded as the cue that triggers the behaviour to occur. Habits have been shown to be quite robust to attempts to alter them. In study 1 we test the hypothesis that a nudge is especially effective when it works with the nudge. Specifically, it was hypothesized that when people have a strong habit of putting a certain amount of spoons of sugar in their tea, they would put in less sugar when the spoon was smaller. However, people who have a weak habit will use the same amount of sugar regardless of the spoon size. In this way a bad habit facilitates the nudge, and indirectly lead to the desired behaviour. In study 2 we tested what happens when the nudge steers against the habit by attempting to break the cue-response link. In this study we measured the habit strength of looking on your phone while waiting. Participants had to wait for five minutes in the lab and were kindly asked to place their phone in a see-through box on the edge of the desk in the nudge condition. In the explicit prohibition condition participants were told that is was not allowed to use their phone in the lab. Participants in the control condition received no instructions. Participants we observed with a camera to see if they would reach for their phone. The results show that the nudge or explicit prohibition condition effects disappeared when habits strength was included in the prediction model of whether people would reach for their phones. Together these studies are the first to demonstrate the relations between nudge effectiveness and habit strength. People with a strong habit were not influenced by the nudge. These results contribute to the knowledge of how externally triggered automatic processes influence actual behaviour and demonstrate that habits are an important boundary condition to nudge effectiveness..

Session      **Biases in Cognition and Action**

Time          Mon, Sept. 3rd, 12:00

Room         A

Marieke Vermue, Charles R. Seger, and Rose Meleady

## **Meta-cognitive influences of intergroup contact recall on attitudes and behaviours towards outgroups**

One of the most successful strategies for changing attitudes and behaviours towards disadvantaged outgroups is intergroup contact. When people have positive interactions with members of an outgroup, this leads to prejudice reduction (Allport, 1954; Pettigrew & Tropp, 2006). Although intergroup friendship is one of the strongest and most direct forms of contact to change attitudes (Pettigrew, Tropp, Wagner, & Christ, 2011), different groups do not always have a chance to interact face-to-face and form friendships. In this project, we propose a novel methodology that aims to change people's attitudes towards outgroups, by targeting perceptions of previous contact instead of increasing direct contact with the group. Based on Tversky & Kahneman's (1973, 1975) availability heuristic, the ease-of-retrieval paradigm (Schwarz et al., 1991; Schwarz, 2004) was designed to study how meta-cognitive feelings of ease or difficulty during thought processes are used as a heuristic in making evaluative judgments. Schwarz showed that producing many arguments in favour of the object of evaluation is perceived as more difficult than producing few arguments, and this meta-cognitive difficulty negatively influences evaluations. Even though people produce more evidence, the experienced difficulty in recall examples leads people to make negative inferences. We adapted this ease-of-retrieval paradigm to study how ease or difficulty in recalling previous contact with an outgroup influences people's perceptions of their contact. We hypothesised that the number of recalled interactions induces differences in meta-cognitive experiences of ease. These feelings of ease or difficulty in recalling contact would lead people to make inferences about the amount and quality of their intergroup contact. Changes in perceptions of intergroup contact, in turn, should influence attitudes and behavioural intentions towards the outgroup. A large-scale online study (N = 409) was conducted through Prolific Academic. Participants described either one example of a positive interaction that they had with someone from the target outgroup (homosexual people), or five different examples of contact. Afterwards, participants completed measures of task difficulty, self-perceptions of contact, outgroup attitudes, and future contact intentions. The results showed that the recall manipulation was successful in creating feelings of ease or difficulty for a majority of the sample (N = 271). Within this subset, we found that participants who recalled one positive interaction with the outgroup reported more positive self-perceptions of contact, outgroup attitudes, and future contact intentions than participants who recalled five different interactions. Moreover, the effect of number of recalled interactions on outgroup attitudes and future contact intentions was mediated by self-perceptions of contact. In conclusion, we examined a novel paradigm that relies on the meta-cognitive processes in recalling previous contact with the outgroup to influence perceptions of contact and outgroup attitudes. For people who experienced ease in recalling few, or difficulty in recalling many interactions with the outgroup, we found that the number of recalled interactions influenced both attitudes and behavioural intentions towards the outgroup by changing perceptions of people's contact. Thus, this intergroup contact recall paradigm shows promise in changing attitudes and making people more willing to engage in contact with the outgroup..

**Session        Stereotypes and Prejudice 2**

**Time            Mon, Sept. 3rd, 17:00**

**Room            A**

Quentin Victeur, Alice Normand, Delphine Martinot, Michaël Berthon, Pascal Huguet, and Laetitia Silvert

## **Social conditionality of attentional capture by angry faces: The role of group attitudes and SES**

The preferential selection of faces expressing negative emotions (such as fear or anger) is a recurrent finding in experimental psychology. This effect is often used as an argument for theories of emotion that consider the selection of threat-related stimuli as an automatic and unconditional process. However, faces belong to a particular class of threat-related stimuli, since they are also important sources of social information. This allows individuals to rapidly categorize people in different groups, and thus to differentiate efficiently “the friends from the foes”. Several studies have already demonstrated that this categorization process may impact cognition and behavior, with a general tendency to favor in-groups and/or discriminate out-groups. We do not know whether and how this intergroup bias modulates attentional capture by faces expressing negative emotions. Rather than being fully automatic, we suggest here that emotional capture depends on the social group to which the expressive individual and the observer belong to. To address this issue, neutral and angry faces were presented as cues in a dot-probe task. Group membership was manipulated through the faces’ ethnicity (Caucasian or North-African), and did or did not match the French participants’ ethnic group (study 1: Caucasian, study 2: North-African). Participants’ identification with the French group, as well as their implicit and explicit attitudes towards the Caucasian and North-African groups were also measured. In opposition to the unconditional view of emotional selection, no attentional capture by angry faces was observed for Caucasian participants (study 1). In sharp contrast, a strong attentional capture by angry faces was observed for participants from the North-African ethnic group (study 2). Importantly, this effect was modulated by the face’s ethnicity and group attitudes. Attentional capture by North-African angry faces was observed for highly-identified participants to the French group, or who held the most negative implicit attitudes towards North-African people. Symmetrically, attentional capture by Caucasian angry faces was observed for the low-identified participants to the French group, or who held the most negative implicit attitudes towards French people. Therefore, these new results suggest that intergroup bias can modulate attentional capture by negative faces, especially angry faces of the devalued group (the group the participants were less identified with, or held the most negative implicit attitudes to). Nonetheless, these effects were observed exclusively for participants from the North-African ethnic group. For that matter, previous studies indicated that low socioeconomic status (SES) individuals are more sensitive to their surroundings, and especially to potential threats in their environment, compared to high SES individuals. As it happens, belonging to the North-African ethnic group is also commonly associated with lower SES (in France). We therefore assumed that low SES may have been responsible of the heightened vigilance observed for this group of participants. In order to test this hypothesis, a replication of the study with Caucasian participants including a measure of their objective SES is being carried out..

Session	<b>Face Perception 1</b>
Time	Mon, Sept. 3rd, 12:00
Room	C

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Shpend Voca and Sylvie Graf

## **The Effects of Mass-Mediated Contact and Collective Victimhood on Willingness to Engage in Direct Contact with the Former Adversary in Kosovo**

Direct intergroup contact has positive effects on outcomes relevant to reconciliation (Hewstone, 2011). However, direct contact is very often missing in post-conflict societies due to the lack of willingness to meet the former adversary. Thus, it is important to investigate factors that can promote or hinder people's willingness to engage in direct contact in post-conflict societies. Intergroup relations can improve or deteriorate depending on the positive or negative portrayals of the outgroup in the mass-media (i.e., mass-mediated contact, Pagotto & Voci, 2013) and distinct construals of collective victimhood (i.e., people's beliefs about past ingroup suffering, Vollhardt & Bilali, 2015). In our research, we tested the effects of positive and negative mass-mediated contact, competitive victimhood (i.e., one's belief that the ingroup suffered more than the adversary in the conflict) and inclusive victimhood (i.e., one's belief that both own group and the adversary have suffered similarly) on willingness to engage in direct contact with the former adversary. Since empathy and trust are crucial for reconciliation and often underlie the effects of intergroup contact and collective victimhood, we tested for their mediating role in the link between positive and negative mass-mediated contact, competitive victimhood, inclusive victimhood and willingness to engage in direct contact with the former adversary (Andrighetto, Mari, Volpato, & Behluli, 2012; Pagotto & Voci, 2013). We conducted our research in the context of Kosovo characterized by the violent conflict between Albanians and Serbs during 1998-1999 and a total segregation in the post-conflict period. In an Albanian sample (N = 232), we analyzed the data using path analysis (Mplus version 6; Muthen & Muthen, 1998-2011). Positive mass-mediated contact directly associated with Albanian participants' willingness to engage in direct contact with Serbs. Positive mass-mediated contact was linked to willingness to engage in direct intergroup contact also indirectly through empathy and trust. We found no direct link between willingness to engage in direct contact with Serbs and negative mass-mediated contact, competitive and inclusive victimhood. However, inclusive victimhood associated with willingness to engage in direct intergroup contact indirectly through empathy. Our findings have practical relevance for interventions that aim at promoting reconciliation in post-conflict societies through increased willingness to engage in direct intergroup contact. Encouraging journalists and executives in the mass-media to transmit positive information about the former adversary can challenge the wide spread cautiousness to meet members of the former adversary in post-conflict societies. Increasing awareness of a similar degree of suffering at both/all sides of intergroup conflict can likewise motivate people to get in direct contact with members of the former adversary. The reconciliation interventions should also specifically target empathy toward the former adversary for example through stories about challenges that Serbs face in Kosovo on a daily basis. Trust is another key mechanism that should be employed for instance in a form of stories about cooperation between Albanians and Serbs..

**Session      Stereotypes and Prejudice 2**

**Time            Mon, Sept. 3rd, 16:00**

**Room            A**

Tobias Vogel

## **Why averages are (not always) beautiful**

Theoretically, average stimuli should be easier to process and in turn liked better than outliers. Substantiating this notion, previous studies showed that a category's central tendency is more fluent and attractive than the category's exemplars. Yet, under some conditions the effect has not been observed. Here, I propose and demonstrate conditions for which such beauty-in-averageness effects level off, or even reverse. In a first set of studies, I show that averages are disliked depending on properties of the stimulus distribution. That is, averages can be relatively atypical members of a category, and in turn disfluent and unattractive. In a second set of studies, I demonstrate that averages can be unattractive depending on the valence of the category they belong to. The findings will be discussed against the background of prominent theorizing in social cognition on the one hand (e.g., Gawronski & Bodenhausen, 2006; 2011), and theorizing on cognitive fluency on the other (e.g., Reber, Schwarz, & Winkielman, 2004). Together, the results of the present paper indicate that the well-established phenomenon of beauty-in-averageness is not universal, but depends on clearly defined features of the context. Rather than questioning the existence of the phenomenon, the present approach allows for a theoretical integration of seemingly contradictory results..

Session	<b>Fluency Effects</b>
Time	Tue, Sept. 4th, 10:30
Room	C

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Kathleen Vohs

## The Demotivating Power of Now

Meditative mindfulness's promise is backed by numerous studies linking it to happiness, rationality, and equanimity. Yet mindfulness may unintended downsides. A central aim of mindfulness is to focus on the present moment and be content with things as they are. Conceptually that clashes with motivation, which implies future-focus and discontentment with the present. Led by a professional coach, people were assigned to a meditation or comparison exercises (known and novel). Then we gave everyone work to do (e.g., word-smithing, typing). People reported their motivation, including task interest, and intended effort and time. After meditating, motivation sagged. Process evidence showed that people assigned to meditate subsequently focused less about the future and felt calm, states not conducive to motivation. Mindfulness did not affect task performance. Process evidence showed that it should have helped because meditators had better mental focus. Yet being demotivated washed out that benefit. Two meta-analyses, including the file drawer, confirmed that motivation dropped after meditating ( $n=745$ ;  $k=6$ ;  $d = -0.276$ ; 95% CI  $-0.426, -0.126$ ), whereas performance was not changed ( $n=1588$ ;  $k=14$ ;  $d=0.074$ ).

Session      **Large-Scale Investigations**

Time          Mon, Sept. 3rd, 16:00

Room         B

Fieke M. A. Wagemans, Willem W. A. Sleegers, Mark J. Brandt, and Marcel Zeelenberg

## **Attentional Biases Associated with Individual Differences in Disgust Sensitivity: An Eye Tracking Study**

Individual differences in disgust sensitivity relate to a wide variety of psychological constructs (e.g., moral decision-making, political ideology, person perception) and are thought to play a role in the onset and maintenance of several psychopathological disorders (e.g., anxiety disorders, obsessive compulsive disorder, eating disorders). Despite its importance, research has yet to uncover the basic information processing strategies that are associated with individual differences in disgust sensitivity. Our studies aim to provide more insight into these processes by investigating whether individuals high and low in disgust sensitivity have different attentional biases for disgust stimuli. Based on existing literature, we formulated three hypotheses that predict different attentional biases for disgust stimuli as a function of individual differences in disgust sensitivity. The first two hypotheses build on the notion that emotionally salient stimuli tend to attract our attention. The first, the vigilance hypothesis, predicts that disgust sensitive individuals will be more attentive towards disgust stimuli (i.e., fast initial orienting and continuous monitoring). The second, the maintenance hypothesis, predicts that disgust sensitive individuals will have more difficulty disengaging from disgust stimuli (i.e., longer dwell times). The third and last hypothesis, the avoidance hypothesis, predicts that more disgust sensitive individuals will have a stronger avoidance reaction to disgust stimuli (i.e., less attention). These three hypotheses were tested simultaneously in two studies using eye tracking methodology. In a first exploratory study, 135 participants engaged in a free viewing task in which they were presented with 10 grids of 4 pictures: 1 disgusting, 1 positive, and 2 neutral pictures. We find that individuals high in disgust sensitivity spend less time (per visit and in total) looking at disgust pictures than individuals low in disgust sensitivity, supporting the avoidance hypothesis. To test whether these effects are specific to disgust stimuli, or apply to negative stimuli in general, we extended our experimental design with the inclusion of negative, but not disgusting pictures in a second, preregistered, study (N = 149). Again, we find strong support for an avoidance hypothesis. Interestingly though, this study also revealed that disgust sensitive individuals show the exact same attentional avoidance bias for other negative stimuli. Taken together, our studies show that the processing of disgust stimuli by disgust sensitive individuals is characterized by avoidance, but not by vigilance or disengagement difficulties. This finding is in line with the idea that more disgust sensitive individuals have a more sensitive pathogen threat alert system, which causes them to interpret even the slightest cue of pathogens as a threat. However, we also find that this avoidance bias is not specific to disgust stimuli alone. This suggests that more disgust sensitive individuals perceive pathogens in stimuli that are generally not considered to be disgusting, indicating that disgust sensitive individuals have a stronger signal detection problem than less disgust sensitive individuals. Alternatively, it could be that disgust sensitivity is indicative of a more general defensive strategy than previously thought..

**Session      Erroneous Beliefs and Conspiracies 1**

**Time          Tue, Sept. 4th, 10:00**

**Room         E**

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Rebecca Weil, Tomás A. Palma, and Bertram Gawronski

## **At the Boundaries of Misattribution: Does Positivity Influence Judgments of Familiarity in the Affect Misattribution Procedure?**

Priming effects in the Affect Misattribution Procedure (AMP) have been explained by a misattribution of prime-related affect to neutral targets. However, the measure has been criticized for being susceptible to intentional use of prime-features in judgments of the targets. To isolate the contribution of unintentional processes, the present research expanded on the finding that positive affect can be misattributed to familiarity (i.e., positivity-familiarity effect). To the extent that prime-valence is deemed irrelevant for judgments of target familiarity, positivity-familiarity effects in the AMP could potentially rule out intentional use of the primes. Seven experiments collectively suggest that prime-valence influences judgments of target-familiarity in the AMP, but only when the task context does not suggest a normatively accurate response to the familiarity-judgment task. Relations of positivity-familiarity effects to self-reported use of prime-valence revealed mixed results regarding the role of intentional processes. Implications for the AMP and misattribution effects are discussed..

Session      **Indirect Measures 2**

Time          Wed, Sept. 5th, 11:30

Room         C

## **On seeing bad people: Perceivers' self-control abilities shape moral judgments of others' mental states**

Most research in the moral domain focuses on moral judgments of behaviors. However, people are fundamentally interested in evaluating others' character. Accordingly, they may also moralize purely mental states, such as immoral thoughts or emotions. However, there is only few research on when and under which circumstances people do so. The present research investigates an important antecedent of the moralization of mental states: dispositional differences in self-control abilities. Trait self-control has been conceptualized as "moral muscle" that determines whether we control our impulses, ultimately choosing vices or virtues. Furthermore, however, it is associated with lower desire strength and a stronger capacity to control one's own mental states such as affective reactions. In six studies, we find that individuals' own ability for self-control shapes their perceptions of others' voluntary control over their immoral thoughts. These perceptions, in turn, affect moralizing responses to mental contents (e.g., perceived wrongness or ascribed blame). Studies 1a-1b tested the predictive effect of trait self-control on the moralization of a target's fantasies about an extramarital affair. Using a path-modeling approach, they further explore the mediational role of perceived voluntary control. Results suggest that control perceptions mediate the effect above and beyond judgments of the immoral behavior in question or the perceived likelihood of the target to act upon his thoughts. Studies 2a to 2b extended these findings to novel materials, and a more elaborated measure of control perceptions based lay perceptions of free will (Study 2b). Finally, Studies 3a to 3b adopt a causal-chain approach to provide experimental evidence for our hypotheses. Across different newly developed stimulus materials, we found that individuals induced to perceive difficulties to control their own emotions judged targets' immoral mental contents such as imaginations or desires to be more freely chosen and intentional compared to individuals who felt capable of controlling their own emotions (Study 2a). Finally, Study 2b manipulated targets' free (vs. impaired) voluntary control over their immoral mental contents. This study hence extended previous research, providing experimental evidence for an effect of target-specific free will perceptions on the moralization of purely internal states, and thus beyond overt behavior. The present research identifies people's own abilities for self-control as a crucial variable in shaping social perceptions and moral judgment, in particular, and thereby contributes to research and theorizing on self-control. Furthermore, it supports a person-centered approach to moral judgment, elucidating how people may condemn even imaginary and therefore seemingly harmless behaviors..

Session      **Morality 2**

Time          Mon, Sept. 3rd, 14:00

Room          D  
Oulmann Zerhouni and Johan Lepage

## **Paint it black: Moderating effects of emotional regulation processes on evaluative conditioning**

We present two studies testing the hypothesis that individuals with chronic difficulties in regulating and identifying their negative emotions (i) would be more sensitive to evaluative conditioning effects when it involves unconditioned negative-valence stimuli and (ii) they are more likely to attribute their level of physiological awakening to the valence of the stimulus. Study 1 uses a within-subject design in which participants ( $n = 90$ ) were exposed neutral CSs either paired with (i) moderately arousing unconditioned stimuli (USs) (ii) highly arousing negative USs and (ii) to positives US. Participants then completed an indirect evaluation of each CS via an Affect Misattribution Procedure (AMP), and a valence-based measure of contingency awareness. Participants then responded to the Difficulties in Regulating Emotion Scale (DERS, 36 items), which assess trait, chronic difficulties in regulating negative affects. The results showed that (i) CSs coupled with strongly arousing negative USs were evaluated more negatively than those coupled with moderately arousing negative USs, and (ii) that the conditioning effect for strongly and moderately arousing negative USs was stronger in participants reporting having more difficulty regulating their emotions on a daily basis. In addition, participants were more likely to recall CS-US contingencies when CS was coupled with strong (rather than moderately) arousing negative US. Study 2 ( $n = 63$ ) is a conceptual replication of study 1 using a 2 (US Valence: negative vs positive) x 2 (Arousal: moderate vs strong) x 2 (AMP measurement: before vs after) within-subject design. We replicate the results of the first study and also show that, surprisingly, highly arousing positive USs lead to a negative conditioning effect. Our results provide new insights into how the ability to cope with external pressure modulates how we perceive our environment and can result in reinforcing the judgments we may have about various social objects..

Session	<b>Evaluative Learning</b>
Time	Mon, Sept. 3rd, 17:30
Room	C

Mufan Zheng and Ana Guinote

## The Powerful Use Flexible Moral Thinking Following Organisational Goals: A Strategy to Maintain Authority

For several decades, scholars were inclined to think that moral judgment is a relative stable cognitive process based on conscious reasoning (Kohlberg, 1969; Piaget, 1965). However, recently more empirical studies challenged the classical theory (e.g. Greene, Morelli, Lowenberg, Nystrom, & Cohen, 2008; Suter & Hertwig, 2011), and proposed that moral judgments are more affected by contextual cues. Here we put our focus on one group of people: power-holders. Does the moral thinking style of the powerful stable across different context? Classical moral dilemmas, such as trolley dilemma, usually involve two types of common moral principles: Deontology and Utilitarianism. A deontological decision would follow the moral duty, while utilitarianism considers “the greatest good for the greatest members” (Darwall, 2003a, b). In one previous study, Lammers and Stapel (2009) found that powerful people follow current rule and principles to make judgments, whereas powerless people consider the practical outcomes of moral decisions. However, we proposed that the moral reasoning of power holders would be more flexible than previously considered, and depends on active goals. The notion that goals associated with the exercise of power can shift moral reasoning is consistent with past research showing that power holders are goal oriented, and modify their cognition and behaviours according to goal requirements (Guinote, 2007; Overbeck & Park 2006; Schmid & Amodio, 2015). To test the hypothesis that active goals drive the moral responses of powerful people we conducted three studies (n = 472). In Study 1, participants were simulated a leading role in an organisation, and we manipulated the mission of the organisation. The mission of the organisation was either person- or rule-oriented. Then we assessed if moral judgments of power-holders are flexible under different organisational goal activations. The results showed that power-holders’ moral judgments follow the goal activation. If moral decisions checking existing rules are consistent with specific organisational goal, then power-holders keep on deontological judgments. In contrast, when the organisational goal shows requirement against current rules, they modify their judgments largely compared with the powerless and people with neutral perspectives. Study 2 further tested the effect by manipulating power with role-play task, and meanwhile measured if the goal pursuit willingness to maintain authority explains the moral choices of power-holders. The effect found in Study 1 was replicated. The results also showed that higher willingness to pursue goals to maintain authority mediates the association between power and deontological moral judgments. Study 3 manipulated sense of power and assessed subjects’ perception of the product/rule value in their context, and aimed to examine whether the similar effect exists outside lab. The results showed that product value could modify the moral judgments of the powerful, but not those of the powerless. This study increases the ecological validity of the findings. The whole research showed that the moral judgment of the powerful is flexible and serves for their current goal activations, and their deeper aim is to maintain their authority obtained from power. The findings are consistent with the theory about power and goal-orientation (Guinote, 2007a, b, c; Overbeck & Park, 2006). This research increases the understanding about the association of power and moral reasoning in different context, and also offers a possible explanation for how power affects moral reasoning..

Session	<b>Morality 1</b>
Time	Mon, Sept. 3rd, 11:30
Room	D

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Janis H. Zickfeld, Niels van de Ven, Thomas W. Schubert, and Ad Vingerhoets

## **Competent Tears: Are Tearful Individuals Perceived As Less Competent?**

What are the social signals of emotional tears? This question has been a riddle to many scholars ever since Darwin. Studies have suggested a number of interpersonal effects of emotional tears. In a recent paper Van de Ven, Meijs, and Vingerhoets (2017) found evidence that tearful individuals are perceived as warmer, but less competent than their non-tearful counterparts. Both effects were robustly found across three studies ( $N = 1042$ ; meta-analytic effect size  $d = .35$  [>.19, .50]). Zickfeld and Schubert (2018) tried to replicate these findings across two samples using US American MTurkers and Norwegian undergraduates ( $N = 561$ ). Employing an increased number of stimuli and a mixed design the competence effect was smaller and negligible (meta-analytic effect size  $d = .04$  [-.04, .13]). This questions the generalizability of the effect of displaying tears on perceived competence. Still, the replication studies differed on a number of aspects, such as stimulus material, sample characteristics, and the addition of an extra measure. In a joint replication attempt we aim to shed light onto the question whether individuals expressing emotional tears are really perceived as less competent and what boundary conditions such an effect might have. We specify a decision tree of three possible studies in which we test differences between the original reference study and the replication..

Session      **Impression Formation**

Time          Wed, Sept. 5th, 12:00

Room         E

## Of Bakers and Bankers: Asymmetric Payoffs in Social Dilemmas

In a nutshell, Adam Smith's classic analysis of division of labor and specialization could be summarized as: cooperation is the wealth of nations. In general, cooperation is advantageous because human interactions seldom take the form of a "zero-sum game". This implies that cooperative behavior creates some kind of surplus in the payoffs of the "players". For example, the time each human being has available on any given day is immutably limited to 24 hours. Nonetheless, economic textbooks usually demonstrate in the very first chapters that even though no one can exceed this limit, everyone in a group can increase the output of their efforts if they divide labor and specialize in different activities. One person alone may only produce one needle per day but if the production process is divided between ten specialized workers, they would not only be able to make ten pins but thousands of them. At the same time, if several people cooperate, the aggregate payoff of this cooperation has to be distributed among these people. The central question of this research is how an equal vs. an unequal distribution of a cooperation's payoff affects the level of cooperation itself. Therefore, I compare behavior in standard (symmetric) games with behavior in their asymmetric counterparts. In detail, participants play a two-player public goods game where the payoffs (i.e. the marginal per capita returns from the public good) are either low or high and either symmetric or asymmetric. Crucially, both players faced the same payoff structure in the symmetric games (e.g., a high payoff player faced another high payoff player) while both players faced different payoff structures in the asymmetric game (i.e., a high payoff player faced a low payoff player and vice versa). Despite the theoretical importance and the growing prevalence of economic inequality, games with asymmetric payoff structures have not yet received adequate attention in the fields of experimental and behavioral economics. The results of two experiments (total N = 912), which were incentivized and did not deceive participants in any way, provide first evidence suggesting that inequality (or asymmetry) decreases participants' willingness to cooperate. More specifically, while low payoff players generally cooperate less than high payoff players, both groups tend to cooperate less (more than 25%) if payoffs are asymmetric. In this talk, I will explore the implications of these results and also discuss the psychological processes potentially underlying these findings. Specifically, concerns regarding trust and fairness might underlie peoples' decreased willingness to cooperate. Interestingly, these issues might bother low and high payoff players to different degrees. While low payoff players might refuse to cooperate because they deem the situation to be unfair, high payoff players might be more concerned with the (unfairness induced) untrustworthiness of low payoff players..

Session      **Judgment and Decision Making 3**

Time          Wed, Sept. 5th, 14:00

Room         A

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