



**Dr. Eric R. Igou**  
**Head of Department**  
**Lecturer of Psychology**

**03 February 2012**

**Re: Final Report ESCON2 Transfer of Knowledge Meeting Sligo from August 24<sup>th</sup> – 28<sup>th</sup>**

Dear Colleagues,

Hereby I am submitting the final report for the ESCON2 Transfer of Knowledge Conference (TKC) in Sligo, in August 2011. I will first summarise the meeting's procedure and outcome. This will be followed by the description of the scientific content and discussions of the event, the assessment of the results and the impact of the meeting, and the final programme.

**Summary**

The conference took place in the Clarion Hotel in Sligo, Co. Sligo (Republic of Ireland), from August 24<sup>th</sup> to August 28<sup>th</sup> in 2011. The European Social Cognition Network's (ESCON2) Transfer of Knowledge Conference is a 4-day conference for junior and senior researchers (with a 70/30 ratio), providing the major forum for knowledge sharing and networking activities. The 2011 TKC included 5 'State of the Art' lectures by eminent international researchers in the area of social cognition and in a related discipline, to offer an overview of the field or integration with other perspectives. These keynote speakers were: Nira Liberman (Tel Aviv University), Zsófia Virányi (Konrad Lorenz Institute for Evolution and Cognition Research), Dermot Barnes-Holmes (National University of Ireland, Maynooth), Ana Guinote (University College London), and Pablo Briñol (Universidad Autonoma de Madrid). The conference had 108 participants, with a 70:30 ratio of junior to senior researchers, with most participants giving presentations as part of 18 thematic sessions (excluding the keynote addresses).

Participants arrived on August the 23<sup>rd</sup> and the 24<sup>th</sup> (morning) and departed on August the 27<sup>th</sup> (evening) and the 28<sup>th</sup>. At the venue, breakfast, lunch, and dinner was served, with the exception of Friday the 26<sup>th</sup>, when participants had (and paid for) their own dinner as part of the social event.

The thematic sessions covered many different areas of social cognition: Self-regulation, conditioning, embodied cognition, impression formation, social judgment, face perception, comparative cognition, construal levels, affect and cognition, stereotyping & prejudice, emotions, ideologies & power, consumer psychology, social neuroscience, judgment & decision making, and memory & attention. All sessions were chaired by internationally highly respected convenors. Note that the session comparative cognition was organised in collaboration with Dr. Zsófia Virányi, the chair of the ESF funded programme on comparative cognition, indicating that ESCON2 reaches out to neighbouring research networks.

The 2011 TKC was a tremendous success. The co-chair of ESCON2, Ap Dijksterhuis, evaluated this TKC as the best TKC in the history of ESCON. The programme was extremely competitive, the venue was close to perfect for a conference of this size, and junior and senior staff had ample opportunities to discuss research ideas. We are also happy to report that our predicted expenses for the conference (€79k) were far higher than the actual expenses for ESF (€56.4k). As stated by a steering committee member, it will be difficult for future TKCs to meet the standards that this TKC. I would like to add that this conference has been organised by myself in collaboration with a team of young academics, a technician from our university and the hotel staff. No professional conference organisation was asked to contribute or consulted. We decided to do this in order to save ESF funds so that a very good conference could be delivered. In addition, I secured additional funds (€2k) from Failte Ireland in order to make the conference a success for delegates and to promote Ireland. We have put an enormous energy into organising the conference, with some of us going to the limit of their capacities. But we are proud that we could deliver the conference in the way we did.

### **Description of the Scientific Content, Discussions at the Event**

The keynote addresses were representative of the range of topics of the thematic sessions. After my opening of the conference, Professor Nira Liberman from Tel Aviv University (Israel) gave the first keynote address, entitled “What are mental construals?”. This presentation was a review of the research that she and her colleagues, most notably Professor Yaacov Trope, have conducted in the past 12 years on the effects of construal levels on judgments and decisions. With construal level theory being one of the most prominent theories

in social and cognitive psychology, this presentation was the most honourable beginning for a social cognition meeting. After the presentation, participants engaged in a vibrant discussion on the breadth and the merits of the theoretical model and its applications in social cognition research. After the presentation we continued our discussions over dinner and at the welcome party in the hotel.

Thursday the 25<sup>th</sup> was a day filled with thematic presentations, one keynote address, and the presentation of the best paper award. The thematic talks started at 8:30 in the morning with sessions on self-regulation (convenor: Professor Eva Jonas), conditioning (convenor: Professor Klaus Fiedler), embodied cognition (convenor: Professor Grzegorz Sędek), and impression formation (convenor: Professor Leonel Garcia-Marques). These were followed by a lunch break and the second keynote address, which was given by Dr. Zsófia Virányi, the chair of the ESF funded programme on comparative cognition. The keynote address was on comparative cognition in animals and human beings, and served the purpose of communicating to social cognition researchers the very interesting research findings of this discipline and how it connects to social cognition research with regard to theory-building and research procedures. This presentation led to an enthusiastic discussion about the relationship of these two fields of research. After this presentation, the thematic sessions continued. They were on social judgment (convenor: Dr. Nazar Akrami), face perception (convenor: Professor Sabine Szesny), comparative cognition (convenor: Dr. Zsófia Virányi), and construal levels (convenor: Dr. Eric Igou). The extensive day of presentations was concluded by the announcement of the best paper award: Ann-Christine Posten & Professor Thomas Mussweiler “When distrust frees your mind – Cognitive effects of trusts and distrust on stereotyping”. The talk was very well received and discussed. The day then ended with dinner and dancing.

The next day, Friday the 26<sup>th</sup>, was opened by a keynote address by one of Ireland’s most prominent psychologists, Professor Dermot Barnes-Holmes. He spoke on “Implicit cognition as a relational / propositional associative assumption in implicit attitude research”. This talk focused on the advantages of an implicit attitude measure that he and his colleagues developed: the IRAP (Implicit Relational Assessment Procedure). The discussions that followed this talk were centered around the benefits of this implicit procedure in comparison to other established implicit measures. The morning then continued with thematic sessions on social judgment (convenor: Professor Gerald Mikula), affect and cognition (convenor: Professor Henk Arts), and stereotyping & prejudice (convenor: Professor Ap Dijksterhuis). Before lunch, the steering committee meeting, and the social events on Friday afternoon, another keynote address was given. Dr. Ana Guinote, a steering committee member of

ESCON2, gave a presentation on her widely known and respected research on power. Specifically, she presented the theoretical model, situated focus theory of power, the many findings that support this theory, and how this theory differs from other theories on the effect of power on human behaviour.

The last day of presentations, Saturday 27<sup>th</sup>, started with thematic sessions on Emotions (convenor: Professor Teresa Garcia Marques), Ideologies and Power (convenor: Dr. Ana Guinote), and Social Neuroscience (convenor: Professor Frank van Overwalle). After the lunch break, Professor Pablo Briñol gave the fifth and last keynote address of the meeting. It was entitled “Emotional validation of thoughts: Anger can increase and decrease information processing and thought usage”. The presentation summarised many findings that indicate different effects of anger on information processing. However, all of these findings supported the integrative notion that the effect of anger on information processing depended on the (cognitive vs. affective) mindset that participants were in. After the keynote address, the thematic sessions on emotions (convenor: Dr. Timothy Ritchie), Judgment and Decision Making (convenor: Gün Semin), Consumer (convenor Dr. Madelijn Strick / Dr. Jochim Hansen), and Memory & Attention (convenor: Dr. Marios Avraamides) ended the day of presentations. The main last presentations of the TKC were followed by the conference dinner in the hotel. On Sunday, August 28<sup>th</sup>, the delegates met for breakfast and then departed from the conference venue.

Overall, the discussions at this meeting focused on basic cognitive processes that underlie people’s perceptions and judgments, experimental designs that could improve research, novel measures in cognitive and social psychology, and the relationship of social cognitive research to applications in everyday life and to the neighbouring field of comparative cognition. Throughout, enough time was given for talks and the resulting discussions. Also, the many breaks between sessions enabled junior and senior researchers to mingle and exchange views on research. Similarly, the social events contributed to constructive information exchange, besides contributing to a very pleasant atmosphere at the conference.

Note that in order to give the TKC the necessary exposure we documented the conference in the Internet: <http://escon2011.com>

### **Assessment of Results and Impact of the Meeting on the Future Direction of the Field**

The meeting was an ideal forum for an exchange of ideas, the improvement of junior researchers projects, and the start of new collaborations. As mentioned in the summary, the meeting was characterised as the best Transfer of Knowledge Conference in the history of

ESCON. The quality of the thematic sessions was very high. Notably, the presentations of junior researchers across Europe were of a very high quality. This was also reflected in the impressive quality for talks that were submitted to the best paper award competition, and it was especially reflected in the high quality of the best paper awarded to Ms Posten and Professor Mussweiler. The quality of the keynote addresses and the inspiration that came from these presentations was exceptional. With Nira Liberman, Pablo Briñol, Ana Guinote outstanding mid-career social cognition researchers presented their impressive approaches and findings. These memorable presentations will set standards for junior delegates (i.e., PhD students) and will likely inspire them for their own projects. Note also that the keynote address of the Irish representative, Professor Dermot Barnes-Holmes, was very well received and made clear that Ireland produces outstanding psychological research.

The short-term results were clear to the delegates: an increase in knowledge with regard to theories in social cognition research and in related fields (comparative cognition, social neuroscience) and with regard to the improvement of psychological research as such. The long-term effects of the conference are somewhat speculative. However, it is likely that this conference will have increased social networking, the likelihood of future collaborations, and the general knowledge of junior (and senior) researchers. Thematically, besides focusing on cognitive processes that underlie social perception and judgments, this conference succeeded in integrating a different but related field of research: comparative cognition. This collaborative and integrative approach will likely inspire the design of future conferences.

As mentioned in the summary, I was able to secure additional funds from the Failte Ireland, in order to deliver a very successful conference and in order to demonstrate the Ireland is an attractive location for international conferences. In addition, we managed to deliver the conference at low cost for ESF, with more than €22.6k less than what was originally projected. Importantly, the service provided by the hotel, the Clarion in Sligo, was outstanding. It was a very good venue for a conference of this size.

The 2011 TKC set new standards with regard to the quality of the presentation in thematic sessions, in keynote addresses, the venue, and social events that ensured a pleasant conference. By having organised a very successful Transfer of Knowledge Conference, the reputation of ESCON2 will increase and the following conferences are likely to be similarly competitive and high in quality. In sum, the 2011 Transfer of Knowledge Conference was a tremendous success, and with that it was a success for European Social Cognition Network 2 and for its main funder, the European Science Foundation.

Kind regards,  
Eric R. Igou

Below please find the Conference Programme.



## **European Social Cognition Network 2**

# **Program and Abstracts** **Transfer of Knowledge Conference 2011**

**August 24– 28, 2011**  
**Clarion Hotel**  
**Sligo, IRELAND**

**E**UROPEAN  
**S**CIENCE  
**F**OUNDATION  
SETTING SCIENCE AGENDAS FOR EUROPE

## European Social Cognition Network 2

### Program Chair

Vincent Yzerbyt

### Program Coordinator

Claudia Toma

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Anders Biel	Sweden
Sabine Sczesny	Switzerland
Ana Guinote	United Kingdom

### Local Organizing Committee, Transfer of Knowledge Conference 2011:

Eric R. Igou (Chair),  
Timothy Ritchie,  
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## Wednesday, August 24, 2011

13.00 – 17.00	<b>Arrival &amp; Registration</b>
17.30 – 17.55	<b>Opening Ceremony &amp; Announcement of Best Paper Award in Pegasus</b>
18.00 – 19.00	<b>Keynote Address in Pegasus: What is Level of Mental Construal? <i>Nira Liberman</i></b>
19.00	<b>Dinner &amp; Welcome Party</b>

## Thursday, August 25, 2011

### Thematic Sessions

	In Pegasus 1	In Pegasus 2	In Aquila	In Tucana
	<b>Session A: Self-Regulation</b>	<b>Session B: Conditioning</b>	<b>Session C: Embodied Cognition</b>	<b>Session D: Impression Formation</b>
	Convener: Eva Jonas	Convener: Klaus Fiedler	Convener: Grzegorz Sędek	Convener: Leonel Garcia- Marques
<b>08.30 – 9.00</b>	<b>A1:</b> Sizing opportunity: Goal relevant objects are perceived as bigger or smaller, depending on what is goal facilitating <b>C. Den Daas, M. Häfner, &amp; J. De Wit</b>	<b>B1:</b> Differentiated conditioning effects through non-evaluative conditioning: Why Nespresso gets sexy when George Clooney is using it <b>S. Förderer, O. Mineva, &amp; C. Unkelbach</b>	<b>C1:</b> The sight and sound of political concepts: The spatial grounding of politics <b>A. R. Farias, M. V. Garrido, &amp; G. R. Semin</b>	<b>D1:</b> Serial and repeated reproduction of personality traits <b>L. Nunes, L. Garcia-Marques, &amp; H. L. Roediger</b>
<b>09.05 – 09.35</b>	<b>A2:</b> The self-regulation of attitudes <b>T. Martiny-Huenger &amp; P. M. Gollwitzer</b>	<b>B2:</b> Exemplar learning versus cue abstraction in evaluative conditioning <b>M. Hütter, F. Kutzner, &amp; K. Fiedler</b>	<b>C2:</b> Constraining metaphors: The role of situational salience on metaphor use <b>M. V. Garrido, G. R. Semin, &amp; A. R. Farias</b>	<b>D2:</b> Rude humans, robots, and objects: The influence of actor agency on spontaneous and controlled trait inferences <b>M. Roubroeks, J. Ham, &amp; C. Midden</b>
<b>09.40 – 10.10</b>	<b>A3:</b> Use of automatic regulatory processes depends on goal-motive fit	<b>B3:</b> Using behavioral stop signals to change impulsive choices for rewarding	<b>C3:</b> How the observation of one particular behavior can influence a	<b>D3:</b> The impact of subtle cues to masculinity or femininity in faces on

	<b>F. Müller &amp; K. Rothermund</b>	foods <b>H. Veling, H. Aarts, &amp; W. Stroebe</b>	completely different behavior: The influence of observed weight lifting on drink intake <b>O. Genschow, M. Wänke, &amp; A. Florack</b>	impression formation <b>M. Walker, M. Wänke, S. Sczesny, &amp; T. Vetter</b>
<b>10.15-10.45</b>	<b>A4:</b> The influence of self-regulatory modes on means evaluation in single and multi-goal contexts <b>E. Orehek, R. Mauro, &amp; A. Kruglanski</b>	<b>B4:</b> I'm thirsty: I'm not scared of that drink! Goal-relevance moderates fit-effects in evaluative conditioning <b>T. Verwijmeren</b>	<b>C4:</b> Blurring the border between human and animal increases severity of moral judgement <b>H. Kim &amp; S. Schnall</b>	<b>D4:</b> A matter of overconfidence? - debiasing of the robust anchoring effect <b>U. Schlattmann</b>
<b>10.45-11.05</b>	<b>Coffee Break</b>			
<b>11.05 – 11.35</b>	<b>A5:</b> Uncontrollability amongst 'chokers' in sports performance – An outcome of learned helplessness? <b>S. Sankaran, W. Greville, &amp; U. von Hecker</b>	<b>B5:</b> Don't tell me that, I want to get it myself: How instructions and inferences differ in terms of potential for implicit attitude change <b>R. Zanon, J. De Houwer, &amp; A. Gast</b>	<b>C5:</b> The track of the stickleback: Motoric manifestations of attitudinal ambivalence <b>I. K. Schneider, F. Van Harreveld, M. Rotteveel, &amp; J. Van der Pligt</b>	<b>D5:</b> Neural correlates of situation and person attributions <b>J. Kestemont, N. Ma, N. Van Hoeck, M. Vandekerckhove, &amp; F. Van Overwalle</b>
<b>11.40 – 12.10</b>	<b>A6:</b> Can experiences of self-agency really originate in the unconscious? The effect of conscious intention versus unconscious outcome priming on experienced self-agency over action-outcomes <b>A. Van der Weiden, H. Aarts, &amp; K. I. Ruys</b>	<b>B6:</b> Different effects of consciously and unconsciously perceived rewards on performance <b>C. Zedelius, H. Veling, &amp; H. Aarts</b>	<b>C6:</b> If it's too cold think of how friendly you are: Focusing on communal traits makes the perceived temperature go high <b>A. Szymkow &amp; M. Parzuchowski</b>	
<b>12.10 – 13.30</b>	<b>Lunch</b>			
<b>13.30 – 14.30</b>	<b>Keynote Address in Pegasus: Comparative cognition: What do dogs and wolves teach us about the evolution of social cognition? Zsófia Virányi</b>			

Thematic Sessions				
	In Pegasus 1	In Pegasus 2	In Aquila	In Tucana
	<b>Session E: Social Judgment I</b>	<b>Session F: Face Perception</b>	<b>Session G: Comparative Cognition</b>	<b>Session H: Construal Levels</b>
	Convener: Nazar Akrami	Convener: Sabine Szcesny	Convener: Zsófia Virányi	Convener: Eric R. Igou
<b>15.20 – 15.50</b>	<b>E1:</b> Motivated cognition in the advisor-client interaction <b>B. Jodlbauer &amp; E. Jonas</b>	<b>F1:</b> Investigating desensitization to media violence using facial expressions <b>K. A. Fanti</b>	<b>G1:</b> Human infants' sensitivity to and representation of social dominance <b>O. Mascaro &amp; G. Csibra</b>	<b>H1:</b> The effect of psychological distance on embodiment of cognition <b>M. Gilead &amp; N. Liberman</b>
<b>15.55 – 16.25</b>	<b>E2:</b> Everyday conceptions of heroes: A prototype approach <b>E. L. Kinsella, T. D. Ritchie, &amp; E. R. Igou</b>	<b>F2:</b> The role of facial trustworthiness in evaluative effects of attention perception <b>E. Treinen &amp; O. Corneille</b>	<b>G2:</b> A comparative perspective for the study of early face preferences: Domestic chicks as an animal model <b>O. Rosa Salva, L. Regolin, &amp; G. Vallortigara</b>	<b>H2:</b> Applying construal level theory to the distinction between proximal & distant senses: The effect of touching vs. seeing on category width and creative cognition <b>A. Shpizaizen &amp; N. Liberman</b>
<b>16.25 – 16.50</b>	<b>Coffee Break</b>			
<b>16.50 – 17.20</b>	<b>E3:</b> “The second man” – Does mere social presence affect performance in a negative priming paradigm? <b>A. Rothe &amp; K. C. Klauer</b>	<b>F3:</b> Effects of status on face perception <b>T. Ong</b>	<b>G3:</b> Enculturation versus domestication in dogs' processing of human faces, a study of human raised wolves <b>A. Racca, D. Újváry, K. Guo, K. Meints, A. Miklósi, &amp; D. Mills</b>	<b>H3:</b> The Effect of Construal Level on Analogical Thinking <b>O. Shapira &amp; N. Liberman</b>
<b>17.25 – 17.55</b>	<b>E4:</b> Peer interaction and cognitive development: The role of gender at 6-7 and 10-11 year-olds <b>A. Zapiti</b>	<b>F4:</b> When facial muscle activation meets rapid evaluation processes <b>G. R. Semin, &amp; F. Foroni</b>	<b>G4:</b> Personality and social coping strategies in dog puppies <b>S. Riemer</b>	<b>H4:</b> So much effort, but so happy: The impact of effort on affective forecasting <b>C. Toma</b>
<b>18.00 – 19.00</b>	<b>Best Paper Award in Pegasus</b>			
<b>19.15 –</b>	<b>Dinner</b>			

## Friday, August 26, 2011

08.30 – 09.30	<b>Keynote Address in Pegasus:</b> <b>Implicit Cognition as a Relational/Propositional Process: Challenging the Associative Assumption in Implicit Attitude Research</b> <b>Dermot Barnes-Holmes</b>		
<b>Thematic Sessions</b>			
	In Pegasus 1	In Pegasus 2	In Tucana
	<b>Session I: Social Judgment II</b>	<b>Session J: Affect &amp; Cognition</b>	<b>Session K: Stereotypes &amp; Prejudice</b>
	Convener: Gerold Mikula	Convener: Hank Aarts	Convener: Ap Dijksterhuis
09.30 – 10.00	<b>I1:</b> Don't talk behind my back! Spatial direction of the feedback suggests slander <b>M. Parzuchowski &amp; N. Frankowska</b>	<b>J1:</b> The influence of positive and negative affect on the pursuit of conscious goal standards <b>J. V. Bittner</b>	<b>K1:</b> Explanatory heuristics in social perception - how they can affect stereotyping <b>A. Grabowski &amp; P. Broemer</b>
10.05 – 10.35	<b>I2:</b> Implicit minority and majority influence <b>N. Dickel</b>	<b>J2:</b> Mood and the impact of individuating information on the evaluation of ingroup and outgroup members: The role of mood-based expectancies <b>A. M. Burger &amp; R. Ziegler</b>	<b>K2:</b> Changing stereotypes: How level of information processing influences the impact of stereotype-inconsistent behaviour <b>H. Greijdanus, T. Postmes, M. Van Zomeren, &amp; E. H. Gordijn</b>
10.40 – 11.10		<b>J3:</b> Does activation really spread? A Meta-Analysis of affective priming <b>J. Burghardt &amp; C. Unkelbach</b>	<b>K3:</b> Generalized implicit and explicit prejudice: What does the implicit association test really measure? <b>R. Bergh &amp; N. Akrami</b>
11.10 – 11.30	<b>Coffee Break</b>		
11.30 – 12.00	<b>I3:</b> Perceived personal control and social support in the maternity ward and parenting self-efficacy of new mothers <b>E. Kodysova</b>	<b>J4:</b> Exploring the specificity and mechanisms of emotional information processing in an emotional priming paradigm – ‘Cold’ semantic extraction of specific information? <b>M. Rohr &amp; D. Wentura</b>	<b>K4:</b> Differentially dangerous? Phenotypic racial stereotypicality increases implicit bias among ingroup and outgroup members <b>K. B. Kahn &amp; P. G. Davies</b>
12.05 – 12.35	<b>I4:</b> Breaking the ice: How physical warmth shapes social comparison <b>J. Steinmetz &amp; T. Mussweiler</b>	<b>J5:</b> When an implicit measure leads to explicit liking: Conditioning with the Affect Misattribution Procedure <b>R. Weil &amp; E. Walther</b>	<b>K5:</b> Tolerance by surprise: Evidence for a generalized reduction of prejudice and increased egalitarianism through multiple categorization <b>M. Vasiljevic &amp; R. Crisp</b>

12.40 – 13.40	<b>Keynote Address in Pegasus: Power, Cognition, and Action Ana Guinote</b>
13.40 – 14.15	<b>Lunch</b>
14.00 – 17.00	<b>Steering Committee Meeting in Tucana</b>
14.30 –	<b>Social Activities</b>

## Saturday, August 27, 2011

### Thematic Sessions

	In Pegasus 1	In Pegasus 2	In Aquila	In Tucana
	<b>Session L: Emotions I</b>	<b>Session M: Ideologies &amp; Power</b>	<b>Session N: Consumer</b>	<b>Session O: Social Neuroscience</b>
	Convener: Teresa Garcia Marques	Convener: Ana Guinote	Convener: Madelijn Strick / Jochm Hansen	Convener: Frank Van Overwalle
<b>08.30 – 9.00</b>	<b>L1:</b> The role of stereotype associations in recognizing emotional faces <b>G. Bijlstra, R. W. Holland, R. Dotsch, &amp; D. H. J. Wigboldus</b>	<b>M1:</b> Authority defied: Regulatory control in the face of authority <b>T. G. E. Damen, M. L. Van Leeuwen, R. B. Van Baaren, &amp; A. Dijksterhuis</b>	<b>N1:</b> Communality sells: The impact of perceivers sexism on the evaluation of women’s portrayals in advertisements <b>M. Infanger, J. Bosak, &amp; S. Sczesny</b>	<b>O1:</b> When do calibration-effects disappear? Judging instead of observing <b>V. Ostheimer, C. Unkelbach, &amp; D. Memmert</b>
<b>09.05 – 09.35</b>	<b>L2:</b> Content vs. colour: How do they interact in image’s emotional impact? <b>A. Kuzinas</b>	<b>M2:</b> Group identification and system justification <b>K. Jaško</b>	<b>N2:</b> I wish my belongings end up in good hands: The interacting role of ownership and purchaser positivity on objects valuations <b>M. Lannoy, S. Demoulin, &amp; O. Corneille</b>	<b>O2:</b> Social scripts and their predictive function <b>K. Baetens, L. Van der Cruyssen, &amp; F. Van Overwalle</b>
<b>09.40 – 10.10</b>	<b>L3:</b> Nostalgia as a meaning-regulation strategy against boredom <b>W. A. P. Van Tilburg, E. R. Igou, &amp; C. Sedikides</b>	<b>M3:</b> Motivation to lead: Does gender matter? <b>M. Kinahan, J. Bosak, P. Flood, &amp; A. H. Eagly</b>	<b>N3:</b> Red reduces consumption behavior <b>L. Reutner, O. Genshow, &amp; M. Wänke</b>	<b>O3:</b> Neuro-psychological correlates of selective exposure to information after decisions <b>C. Vogrincic, P. Fischer, E. Jonas, J.</b>

				Klackl, U. Athenstaedt, & A. Ischebeck
10.10 – 10.30	<b>Coffee Break</b>			
10.30 – 11.00	<b>L4:</b> Affective congruency effect on likelihood of emotional events <b>I. Dias, T. Garcia Marques, &amp; M. Prada</b>	<b>M4:</b> Religiosity as system justifying ground for sexism <b>M. Mikolajczak &amp; J. Pietrzak</b>	<b>N4:</b> Prior intentions to switch mediate the link between attitudes and spontaneous switching behavior for own-provider attitudes, but not for other-provider attitudes <b>K. Thorsteinsen &amp; F. Siebler</b>	<b>O4:</b> Dissociation in the social brain: The role of the TPJ and mPFC in goal and trait inferences <b>N. Ma, N. Van Hoeck, K. Baetens, L. Van der Cruyssen, &amp; F. Van Overwalle</b>
11.05 – 11.35	<b>L5:</b> Choose a juice! The effect of choice options and intention on aggression in a modified hot-sauce paradigm <b>S. Beier &amp; F. Kutzner</b>	<b>M5:</b> Close Enough! Acculturation strategies Moderate Dehumanization <b>M. Miranda, M. Gouveia-Pereira, &amp; J. Vaes</b>	<b>N5:</b> Think money – think global <b>M. Wänke, J. Hansen, &amp; F. Kutzner</b>	<b>O5:</b> Action control: Brain, mindset and executive functioning <b>H. A. H. Ruigendijk, S. L. Koole, &amp; H. S. Scholte</b>
11.40 – 12.10	<b>L6:</b> Self-compassion mediates the relations between anxiety/depression and subjective happiness <b>T. D. Ritchie</b>	<b>M6:</b> How power influences moral cognition: Dual processes and individual differences <b>J. Sweetman &amp; A. Guinote</b>	<b>N6:</b> Attitudes to debt and monetary behavior in Lithuanian sample <b>S. Žukauskas</b>	
12.10 – 13.30	<b>Lunch</b>			
13.30 – 14.30	<b>Keynote Address in Pegasus</b> <b>Emotional Validation of Thoughts: Anger Can Increase or Decrease Information Processing and Thought Usage</b> <b>Pablo Briñol</b>			
<b>Thematic Sessions</b>				
	In Pegasus 1	In Pegasus 2	In Tucana	
	<b>Session P: Emotion II</b>	<b>Session Q: Judgment &amp; Decision Making</b>	<b>Session R: Memory &amp; Attention</b>	
	Convenor: Timothy Ritchie	Convener: Gun Semin	Convener: Marios Avraamides	
14.30 – 15.00	<b>P1:</b> The salience of emotion: Evidence from a study of task switching between different facial attributes <b>A. Gul &amp; G. W. Humphreys</b>	<b>Q1:</b> Need for Cognitive Closure and decision making: language regulatory function <b>M. Chmiel</b>	<b>R1:</b> Putting some order in person memory: Memory for (serial) order in impression formation <b>R. S. Costa, L. Garcia-Marques, &amp; J. W. Sherman</b>	

15.05 – 15.35	<b>P2:</b> Moral condemnation and the search for mitigation <b>N. L. Powell, K. Quinn, S. Beck, &amp; R. Giner-Sorolla</b>	<b>Q2:</b> To read two pages, I need 5 minutes, but give me 5 minutes and I will read four: how to change productivity estimates by inverting the question <b>T. Halkjelsvik, M. Jørgensen, &amp; K. H. Teigen</b>	<b>R2:</b> A nice kid who yelled at grandma: The ontogeny of the incongruity effect in person memory <b>S. Hagá, K. Olson, &amp; L. Garcia-Marques</b>
15.40 – 16.00	<b>Coffee Break</b>		
16.00 – 16.30	<b>P3:</b> Feigned pain is seen as real in the laboratory and on the soccer field <b>S. W. G. Derbyshire &amp; R. Bushell</b>	<b>Q3:</b> Sound sleepers have restless minds: Sleep improves decision-making <b>M. Strick, S. Ritter, M. Bos, R. Van Baaren, &amp; A. Dijksterhuis</b>	<b>R3:</b> Automatic attitude activation is modulated by feature-specific attention allocation <b>T. Everaert, A. Spruyt, &amp; J. De Houwer</b>
16.35 – 17.05	<b>P4:</b> When distrust frees your mind – Cognitive effects of trust and distrust on stereotyping <b>A-C. Posten &amp; T. Mussweiler</b>	<b>Q4:</b> Counterfactual thinking: judgments vs. affective evaluations of outcomes <b>J. A. Terum &amp; F. Svartdal</b>	<b>R4:</b> Does agency cueing of geometric shapes affect their attentional cueing effects? Investigating the social component of endogenous attentional orienting <b>J. Steen, F. Van Overwalle, &amp; M. Brass</b>
19.00 –	<b>Main Conference Dinner &amp; Party</b>		

**Sunday, August 28, 2011**

**Departure Day**

## Keynote Address I

**Title: What is level of mental construal?**

**Authors: N. Liberman**

Understanding the nature of mental construal is a central goal of many fields in psychology. One dimension on which construals vary is veridicality—the extent of correspondence between construals and the objective attributes of the objects they represent. Understanding what makes construal more or less veridical has been central to the study of perception, cognition, social psychology, and decision making. Another dimension on which construals vary is level. According to construal level theory (CLT; Liberman & Trope, 2008; Trope & Liberman, 2010), regulating towards psychologically distal targets (either in space, time, social perspective, or probability) requires forming higher level construals. I would like to suggest conceptualizing level of construal as the extent of reduction to primary elements that are central to a representation and omission of incidental elements. I will review various manifestations of level of construal, each of which maps different features onto the distinction between primary-central and secondary-incidental distinction: categorization, primary and secondary aspects, gestalt, distinguishing a figure from its context, subordination, theories versus noise, and digital versus analog representations. We suggest that the perspective of construal level enriches our understanding of these constructs and allows novel predictions by connecting those constructs to psychological distance.

## Session A: Self-Regulation

### Presentation A1

**Title: Sizing opportunity: Goal relevant objects are perceived as bigger or smaller, depending on what is goal facilitating**

**Authors: F. Den Daas, M. Häfner, & J. De Wit**

It is established psychological knowledge that size perception is influenced by motivation. According to the functional perception theory, goal relevant objects are perceived as bigger in order to attract more attention (i.e. attention-hypothesis). In contrast, we propose that goal relevant objects are perceived in ways that are most successful in facilitating goals (i.e. success-hypothesis). This implies that objects can be estimated bigger, when bigger is better (goal achievement wise), but also that objects can be estimated smaller, when smaller is more rewarding.

Results of three experiments support our claim. Specifically, in Study 1, people with a throwing-goal estimated a basketball to be smaller than people without a throwing-goal, whereas people with a throwing goal estimated the hoop of a



basketball-goal smaller than people without a throwing goal. In Study 2, men primed with sex estimated a female target's breasts bigger, whereas women primed with sex estimated the breasts of their potential competitor smaller, in comparison to a neutral prime condition. In an effort to investigate the underlying process we manipulated impulsive and reflective states in Study 3. We argue that motivated perception is a spontaneous process, and thus over and underestimation should and did only occur in impulsive states. Thus, we conclude that motivated perception is like wearing rose-colored glasses; people perceive the world as it suits them.

## Presentation A2

**Title: The self-regulation of attitudes**

**Authors: T. Martiny-Huenger & P. M. Gollwitzer**

In the present experiment we investigated the possibility to regulate one's attitudes via the self-regulation strategy of *implementation intentions*. Forming a traditional implementation intention creates a link between the specified situation and behavior. However, in the present research, instead of specifying a goal-directed behavior in the then-part of the plan, we used implementation intentions to create a link between neutral stimuli and a (negative) mental representation (scenario of a slum neighborhood). In line with attitude construction theories, we hypothesized that the valence of the linked mental representation should have a corresponding effect on the evaluations of the critical stimuli. We tested this hypothesis in a one-factorial within-participant design with the factor evaluation stimuli (critical vs. control). The main dependent variable was the evaluation of the critical and control stimuli. Additionally, we assessed the participants' familiarity and evaluations of the linked scenario. A paired t-test comparison of critical and control stimulus evaluations showed no significant difference. Because the evaluations of critical stimuli depended on the characteristics of the scenario, we further investigated the evaluations of critical stimuli as a function of the familiarity judgments and evaluation of the scenario by means of a multiple regression analysis. This analysis showed a significant interaction between the scenario familiarity and scenario evaluations on the evaluations of the critical stimuli. For participants familiar with the scenario, there was a relationship between the scenario evaluations and the evaluations of the critical stimuli; the more negative the scenario was evaluated, the more negative were evaluations of the critical stimuli. For participants not familiar with the scenario, there was no significant relationship. The results are discussed concerning attitude construction theories, evaluative conditioning, and the potential of implementation intentions as a strategy to self-regulate attitudes.

### Presentation A3

**Title: Use of automatic regulatory processes depends on goal-motive fit**

**Authors: F. Müller & K. Rothermund**

Research on goal pursuit has demonstrated automatic processes that support individuals' progress towards goals e.g. positive shifts in evaluation of goal facilitating stimuli (Ferguson & Bargh, 2004) or tendencies to approach objects facilitating goal progress (Fishbach & Shah, 2006).

We argue that such automatic processes are not employed universally, but depend on characteristics of the goal in question. Because implicit motives define which outcomes or events are of incentive value to individuals, only goals that are compatible with individuals' implicit motives (McClelland, Atkinson, Clark, & Lowell, 1953, Schultheiss, 2008) should have a strong motivational underpinning. Thus they should be especially supported by automatic regulatory processes.

Two studies demonstrated that individuals' use of regulatory processes depends on the fit between individuals' motives and the pursued goal. In the first study fit between the goal of "studying" and the achievement motive resulted in stronger approach tendencies towards goal facilitating and avoidance tendencies towards goal conflicting stimuli measured with a joystick paradigm (Fishbach & Shah, 2006). In the second study fit between an experimentally induced word generation goal and participants' achievement motive resulted in more positive evaluations of goal facilitating and more negative evaluations of goal conflicting stimuli measured with an evaluative priming paradigm.

This tentatively supports the idea that automatic regulatory processes of goal pursuit are employed to varying degree depending on characteristics of the pursued goal. Given the striking lack of correspondence between individuals' explicit goals and implicit motives (Brunstein, Lautenschlager, Nawroth, & Pöhlmann, 1995), individuals might pursue goals that a) mismatch their implicit motives and b) thus receive less support by automatic regulatory processes. Further consequences such as less success in goal attainment and generalization to the fit of goals with other motives (i.e. power, affiliation) will be the focus of future studies.

### Presentation A4

**Title: The influence of self-regulatory modes on means evaluation in single and multi-goal contexts**

**Authors: E. Orehek, R. Mauro, & A. Kruglanski**

Individuals oftentimes elect to pursue means that can serve more than one goal at a time (i.e., are *multifinal*, Chun & Kruglanski, 2005), such as a cellular phone with multiple features. The advantage of this strategy is that the individual is able to

attain greater overall goal value by “killing two birds with one stone.” Yet, this strategy comes at a cost to the strength of association between the means and the goal(s) (Zhang et al., 2007). While a cellular phone that has multiple features generates more goal value, the association between the phone and each goal, such as making phone calls, is likely to be weaker. This dilution of the association between the means and the goals it serves when additional goals are attached to it presents the actor with a dilemma in which s/he must determine whether to prioritize association strength or value.

We report four experiments that provide an initial framework through which we can understand when and why individuals would prefer a unifinal or a multifinal means. We predicted that because the self-regulatory mode of locomotion is aimed at movement and is concerned with making fluid progress, actors would prioritize association strength over value when it is active. Conversely, because the self-regulatory mode of assessment is aimed at critical evaluation and concerned with making the best choice, actors would prioritize value over association strength when it is active. Therefore, we predicted that locomotors would prefer unifinal over multifinal means, while assessors would prefer multifinal over unifinal means. This pattern was exhibited regardless of whether the means were evaluated according to a self-report measure, an implicit measure, participants’ phenomenological experience, or participants’ behavior. Moreover, this pattern was observed when the multifinality variable was manipulated using experimenter provided goals, participant generated goals, or direct experience with the goals.

## Presentation A5

**Title: Uncontrollability amongst ‘chokers’ in sports performance – An outcome of learned helplessness?**

**Authors: S. Sankaran, W. Greville, & U. Von Hecker**

The present research investigated mechanisms involved in ‘choking under pressure’. It was predicted that athletes who perform better in training (Training Champions –TC) ‘choke’ more than the athletes who perform better in competitions (Competition Champions – CC). So far results show that TC are more affected by positive/negative/neutral primes than CC and also show higher levels of some maladaptive traits that lean towards an ‘over thinking’ hypothesis. TC’s maladaptive thought patterns could result in them perceiving situations as more uncontrollable, which is a direct determinant of helplessness. The following studies were designed to predict differences between TC and CC as a function of perceived controllability. Study 1 involved a video game in which participants, both athletes and non athletes, had some control over an athlete’s speed in a simulated race. The levels of controllability were distributed across High, Average and Low probability schedules. TC reported less perceived control than CC, regardless of whether their athlete won or lost the race, or whether they themselves had high or low levels of

actual control, while the non athletes were close to accuracy. When average levels of control was experienced, the lack of control vs illusion of control distinction was better seen. Study 2 involved a design that required participants to determine if clicking a button had an effect on the lighting of a triangle on screen. The design was similar to Study 1, except with the introduction of ‘ambiguity measure’ of fixed vs variable. This was the time interval between pressing the key and the triangle lighting up. Group main effect was replicated. TC experienced more uncontrollability than CC across both ambiguity measures, but the non athletes, seemed to decline only in the variable measure. These findings could lean towards a ‘learned helplessness’ explanation, especially with TC constantly experiencing feelings of uncontrollability.

## Presentation A6

**Title: Can experiences of self-agency really originate in the unconscious? The effect of conscious intention versus unconscious outcome priming on experienced self-agency over action-outcomes.**

**Authors: A. Van der Weiden, H. Aarts, & K. I. Ruys**

People often find themselves in situations where the cause of events is ambiguous. Yet, it is important to determine the causal agent in a situation in order to know, for example, if we should thank, blame, or apologize to someone. So, how does the mind produce experiences of self-agency (the experience of causing your own actions and resulting outcomes) in these ambiguous situations?

Usually experiences of self-agency derive from our intention to engage in behavior. However, recent research has shown that (subliminal) priming of outcome representations enhances people’s experiences of self-agency as well. Although intriguing, these findings are still open to the possibility that outcome priming causes people to consciously form intentions to produce the primed outcome, and thus self-agency results from intentional processes.

To investigate this issue, we conducted two experiments that compared the effects of priming versus intention on experienced self-agency by taking the process of matches and mismatches of expected and actual outcomes into account. In line with previous research, results showed that both conscious intentions and unconscious outcome primes enhance experienced agency when they match the actual outcome. Interestingly, results further showed that self-agency experiences over mismatching outcomes are lower when these outcomes were consciously intended, whereas experienced self-agency was not affected by mismatching outcome primes.

Together, these results provide new evidence for the idea that experiences of self-agency can result from unconsciously primed outcome representations without the mediation of conscious intentions. Furthermore, unconscious priming of outcome representations seems to bias authorship processing toward instances of success,

while intentions cause people to take instances of success and failure into account. These findings are discussed in the context of possible differences between outcome priming, goal priming and conscious intentional processes in creating the sense of agency.

## Session B: Conditioning

### Presentation B1

**Title: Differentiated conditioning effects through non-evaluative conditioning: Why Nespresso gets sexy when George Clooney is using it**  
**Authors: S. Förderer, O. Mineva, C. Unkelbach**

Evaluative conditioning is a procedure explaining preference formation: Through mere repeated co-occurrence with liked or disliked stimuli (USs) initially neutral stimuli (CSs) are liked or disliked afterwards. Recent research has shown that non-evaluative attributes, like athleticism, can also be learned via conditioning procedures (e.g., Förderer & Unkelbach, 2011). However so far, evaluative and non-evaluative conditioning studies focussed only on transferring one specific attribute at a time. In the current study, we show that differentiated conditioning effects are possible and separate attributes can be transferred.

In the first experiment, we conditioned five attributes: humorous, sexy, intellectual, athletic, and gentle. Therefore, we repeatedly paired five neutral logos (CSs) with pictures of fifteen celebrities (USs) holding specific attributes. The celebrities were selected in a pre-test to ensure they held only one of the attributes in question and did not differ in valence. Three celebrities at a time were representatives for one of the five attributes. After conditioning, participants rated each logo on all five attributes and valence creating an attribute profile for each logo. Results showed significant differentiated non-evaluative conditioning effects: Each logo (CS) acquired only the respective attribute of the celebrities (USs) it was paired with. The conditioned logos did not differ in valence. A second experiment showed that those conditioning effects last over longer periods by measuring the effects one day after conditioning.

Our research shows that non-evaluative conditioning explains formation of differentiated preferences. This further emphasizes the important role of non-evaluative conditioning for brand image formation. Celebrities endorsing products do not only enhance the liking of the product but also create differentiated brand images.

### Presentation B2

**Title: Exemplar learning versus cue abstraction in evaluative conditioning**  
**Authors: M. Hütter, F. Kutzner, & K Fiedler**

Pictures of human faces (CSs) were conditioned with clearly valenced pictures (USs) selected from the International Affective Picture System. The faces varied systematically on three dimensions: gender (male vs. female), age (young vs. older adults), and skin color (Northern vs. Southern European). In the first experiment one of these cues correlated with  $\varphi=.30$  with US valence. By this procedure the predictive cue was to be conditioned over and above the individual face pictures. Which one of the cues was predictive was counterbalanced across participants. In the second experiment there was no correlation between any of the cues and US valence. We used, however, skewed base rates of one of these cues and the US valence. That is, we presented more positive than negative USs and either more males than females, more older adults than young adults, or more Southern Europeans than Northern Europeans. Thus, a pseudocontingency was established between the skewed cue and US valence.

We obtained significant evaluative conditioning effects in both studies. However, the main effect of predictive strength was not significant, neither was its interaction with US valence. We also assessed evaluative ratings toward transfer items that were not presented during the conditioning phase. However, we did not obtain a significant effect of predictive strength on these ratings either.

From the current results it can be concluded that rule-based learning is difficult to obtain within an evaluative conditioning paradigm. Hence, evaluative conditioning effects hardly generalize to stimuli not presented during the conditioning phase. The implications of these findings relate, for example, to the formation of stereotypes being apparently insensitive to evaluative conditioning. Follow-up experiments that address the role of the cues' predictive strength and social desirability in responding to novel individuals will also be presented and discussed.

### **Presentation B3**

**Title: Using behavioral stop signals to change impulsive choices for rewarding foods**

**Authors: H. Veling, H. Aarts, & W. Stroebe**

Rewarding objects in the environment (e.g., high-fat tasty foods) often trigger impulsive reactions to obtain them, which may interfere with attempts at self-control. We tested a strategy to reduce impulsive responding toward rewarding objects that makes use of behavioral stop signals to change the impulse-evoking quality of these rewarding objects. Specifically, in two experiments, participants performed a go/no-go task in which rewarding foods (e.g., chocolate, potato chips) were repeatedly presented with no-go cues (i.e., the behavioral stop signals; no-go condition), or not (control condition). After this manipulation, we presented

participants with a selection of not very rewarding healthy foods and unhealthy rewarding foods, and asked participants to choose a number of these foods to eat. As expected, results revealed that participants choose less rewarding foods when these foods had been presented near stop signals in the go/no-go task. Importantly, this reduction in choices for rewarding foods as a result of the stop-signal manipulation was stronger for participants who were sensitive to the impulse-evoking quality of the rewarding foods (e.g., when participants were hungry, or when they did not have strong intentions to eat healthily). Together, these findings suggest that stop signals reduced the impulse-evoking quality of unhealthy rewarding foods, and that changing this proximal cause of impulse behavior can prevent the occurrence of overt impulsive behavior. As such, the present work converges well with recent developments in social cognition suggesting that a focus on changing impulsive determinants of behavior (rather than deliberative determinants of behavior) may be very effective in reducing impulsive behavior.

#### Presentation B4

**Title: I'm thirsty: I'm not scared of that drink! Goal-relevance moderates fit-effects in evaluative conditioning**

**Authors: T. Verwijmeren**

Evaluative conditioning (EC) is defined as a change in evaluation of a stimulus by pairing it repeatedly with an affective stimulus. As a result, the evaluation of the conditioned stimulus (CS) changes towards the valence of the affective, unconditioned stimulus (US). Previous research has suggested that a fit in relevance between the CS and US might emphasize EC effects. For example, rats' behavior is influenced more strongly when food is conditioned with nausea than with an electric shock (Garcia, & Koelling, 1966), presumably because nausea has greater relevance to food. However, a meaningful link is more than a mere coherence between CS and US. The person being conditioned also has to *perceive* this coherence as meaningful. Suppose the rats in the study mentioned above did not have the motivation to eat the food, it would probably be less meaningful to them that it causes nausea. Therefore, we predicted that this 'fit effect' in evaluative conditioning would be most pronounced among individuals for whom the conditioned stimulus is relevant to his or her current goal-state. Specifically, in two studies we tested whether evaluative conditioning of a brand of beverage would be more effective when pairing the drink with disgust rather than fear (i.e., as disgust is more relevant here), and whether this would especially be the case for individuals who are already thirsty. In line with predictions, in both Studies 1 and 2, thirst was negatively related to a preference of the disgust-conditioned beverage over the fear-conditioned beverage. In addition, in Study 1, level of thirst was negatively related to the evaluation of the disgust-beverage compared to the fear-beverage (a

marginal effect in Study 2). The present research indicates that a fit between the CS and US increases EC effects especially when the fit is goal-relevant.

### **Presentation B5**

**Title: Don't tell me that, I want to get it myself: how instructions and inferences differ in terms of potential for implicit attitude change**

**Authors: R. Zanon, J. De Houwer, & A. Gast**

Every day all of us are exposed to many co-occurrences of stimuli such as people, objects and events, just to name a few. According to Dual Process models this information, resulting in mental associations, should represent the exclusive basis for implicit attitude change. We question this assumption, investigating the influence of information other than co-occurrences (i.e. instructions, inferences) on implicit and explicit attitude change. In Study 1 we compared the effect of instructions versus co-occurrences. Nonwords were systematically paired with affectively relevant words. After the pairings, instructions stated that the nonwords were actually antonyms of the words they were paired with. Results showed an IAT effect in line with the co-occurrences, whose influence appeared unaffected by the instructions' opposite information. In Study 2 we tested the effect of inferences versus co-occurrences. We presented participants with see a series of nonwords followed by positive or negative outcomes. A hidden rule implied that a single cue was followed by a certain outcome when it appeared alone, but by the opposite outcome when it appeared together with a special reverse-cue. Two cues, which only appeared in compound with the reverse-cue, were our test cues. One of these test compounds was systematically followed by a positive outcome, whereas the other was followed by a negative one. Given that they never appeared alone, but always in compound with the reverse-cue, in order to infer their real valence one must have mentally reversed the valence of their actual co-occurrences. Unlike Study 1, we found a preference (IAT effect) for the negatively paired cue, reflecting an impact of the inferences on implicit attitudes. We conclude that changing attitudes derived from co-occurrences is not an effortless process, and the slow and active inference formation seems more effective than the exposition to simple instructions opposite to the co-occurrence's valence.

### **Presentation B6**

**Title: Different effects of consciously and unconsciously perceived rewards on performance**

**Authors: C. Zedelius, H. Veling, & H. Aarts**



Recent research has shown that unconsciously perceived rewards can motivate people to invest effort in various tasks (e.g., Bijleveld et al., 2009; Pessiglione et al., 2007). This raises the question of whether consciously and unconsciously processed rewards are equally effective in improving effortful performance. Three experiments examined similarities and differences between the effects of consciously and unconsciously perceived reward cues in modulating performance. First, we established that both conscious and unconscious rewards generally improve performance on a subsequent task. In a second study, we showed that conscious and unconscious rewards led to opposite effects, however, when they were presented while a person is already involved in the execution of a task. That is, unconsciously presented rewards improved performance but consciously perceived rewards impaired performance. Thus, conscious reflection on rewards during a task appears to interfere with the execution of the task, likely because it is distracting. In a third study, we show that conscious reflection on a reward does not always harm performance. Specifically, we argued that conscious reward processing is beneficial when it is necessary to react not only to the value of a reward, but to also take into account whether a reward is currently attainable or not. When participants were confronted with unattainable rewards, only consciously perceived reward cues no longer enhanced performance; unconsciously perceived, unattainable rewards improved performance. These findings provide new insights and have important implications for current debates regarding unconscious processes in motivation and decision making.

## Session C: Embodied Cognition

### Presentation C1

**Title: The sight and sound of political concepts: The spatial grounding of politics**  
**Authors: A. R. Farias, M. V. Garrido, & G. R. Semin**

Conceptual metaphor theory has boosted research exploring how target concepts such as *valence* (e.g., Meier & Robinson, 2004), *power* (e.g., Schubert, 2005), *time* (e.g., Lakens, et al., 2011), and *politics* (e.g., Garrido, et al., in prep), are grounded on source concepts such as space, or more specifically a vertical or horizontal spatial dimension.

The potential role of situational priming in metaphor use (e.g., Landau, et al., 2009) was tested in one experiment using a visual disambiguation paradigm. We presented participants with a list of words related to valence, power, time and politics. The words were presented along vertical and horizontal axes on the monitor.

Participants' task was to identify the location of the words (up, down, left or right). On critical trials, the words were presented in the middle of the monitor. Subsequently, the relevant dimensions were primed. For valence and power participants were to classify the critical trials as up/down and for time and political words, as left/right. According to previous research, faster classifications were expected for positive and power-related words presented at the top and negative and powerless-related words presented at the bottom. Similarly, future and conservatism-related words should be faster to classify when presented on the right compared to past and socialism-related words. Results indicate that metaphor congruent facilitation only occurs when the relevant dimension is salient. These results highlight the significance of situational priming, in particular the activation of the relevant spatial dimension, in influencing metaphor use. Interestingly, they suggest that abstract concepts do not automatically activate the relevant spatial dimension, contradicting the assumption that there is an automatic source-target association without which the abstract concept cannot be comprehended.

## Presentation C2

**Title: Constraining metaphors: The role of situational salience on metaphor use**

**Authors: M. V. Garrido, G. R. Semin, & A. R. Farias**

Conceptual metaphor theory has boosted research exploring how target concepts such as *valence* (e.g., Meier & Robinson, 2004), *power* (e.g., Schubert, 2005), *time* (e.g., Lakens, et al., 2011), and *politics* (e.g., Garrido, et al., in prep), are grounded on source concepts such as space, or more specifically a vertical or horizontal spatial dimension. The potential role of situational priming in metaphor use (e.g., Landau, et al., 2009) was tested in one experiment using a visual disambiguation paradigm. We presented participants with a list of words related to valence, power, time and politics. The words were presented along vertical and horizontal axes on the monitor. Participants' task was to identify the location of the words (up, down, left or right). On critical trials, the words were presented in the middle of the monitor. Subsequently, the relevant dimensions were primed. For valence and power participants were to classify the critical trials as up/down and for time and political words, as left/right. According to previous research, faster classifications were expected for positive and power-related words presented at the top and negative and powerless-related words presented at the bottom. Similarly, future and conservatism-related words should be faster to classify when presented on the right compared to past and socialism-related words. Results indicate that metaphor congruent facilitation only occurs when the relevant dimension is salient. These results highlight the significance of situational priming, in particular the activation of the relevant spatial dimension, in influencing metaphor use. Interestingly, they suggest that abstract concepts do not automatically activate the relevant spatial dimension, contradicting the assumption that there is an automatic source-target association without which the abstract concept cannot be comprehended.

## Presentation C3

**Title: How the observation of one particular behavior can influence a completely different behavior: The influence of observed weight lifting on drink intake**

**Authors: O. Genschow, M. Wänke, & A. Florack**

Recent research in mimicry suggests that observing and performing a movement draws on the same representations in the brain. Furthermore, the degree in which the representations of an observer correspond to those of the actor and, therefore, trigger the respective behavior depends on the observer's ability to put oneself into the actor's perspective. The present research goes a step further showing that observing one particular behavior can influence a completely different behavior merely because both behaviors involve similar motor activities. In four studies

participants were asked to taste and evaluate a sports drink while they were watching a video. The video showed an athlete exercising with a barbell. The movement either matched (arm flexion) or did not match (arm extension) the movement needed for bringing a cup from a table to the mouth. Observing arm flexion, compared to arm extension, led participants drink more from the drink the easier it was for them to take the perspective of the observed actor either because of intra-individual differences (Study 1) or because of the way the behavior was presented (Study 2). Confirming a mimicry process, the increased drink intake was due to more frequent lifting of drinking cups rather than merely larger sips (Study 3). Furthermore, the observed arm flexion movement had only an effect on consumption behavior when participants drunk out of a cup, but not when they drunk with a tube (Study 4). Extending recent research in social cognition and neuroscience, we demonstrated that individuals also mimic movements, which are similar to each other, but pursue different purposes. In line with previous research we also found stronger effects the easier it was for participants to take the perspective of the observed actor either because of intra-individual differences or because of the way the behavior was presented.

## Presentation C4

**Title: Blurring the border between human and animal increases severity of moral judgement**

**Authors: H. Kim & S. Schnall**

It is commonly believed that moral judgment is determined by explicit reasoning. However, recent findings suggest that intuitions rather than rationality substantially guide the way people make moral judgements. One such intuition relates to people's desire to keep the body clean and pure. When people perceive that human purity is violated (e.g., by someone acting like an animal), they feel disgusted, which can lead to making harsher moral judgments. We speculated that the notion of purity might help explaining ethical concerns in medical settings (e.g., transplanting animal organs), and we thus tested the effect of having a blurred boundary between human and animal on moral judgment. We predicted that when people are reminded of violating human and animal boundary (e.g., being exposed to a human with animal characteristics), their moral judgements would be harsher due to this purity violation. Our testing environment was a virtual online space (Second Life) and the participants were Second Life users. Study 1 showed that participants made harsher moral judgements when the experimenter's avatar had a cat head and a human body compared to an avatar with a human head and body. Study 2 revealed that the effect observed in Study 1 was not attributable to mere priming of an animal: participants made harsher moral judgements when the experimenter's avatar had a cat head and a human body compared to a human avatar that was only holding a cat. Finally, Study 3 tested whether the effect was due to novelty and

found out that the experimenter's human avatar with a weird hat (clown hat) did not differ in moral judgements from the human avatar without the hat except when the experimenter's avatar was considered odd looking. These findings suggest that moral judgments can be harsher when the boundaries between animal and human nature are obscured.

## Presentation C5

**Title: The track of the stickleback: Motoric manifestations of attitudinal ambivalence**

**Authors: I. K. Schneider, F. Van Harreveld, M. Rotteveel, & J. Van der Pligt**

In his book on animal behavior, Hinde (1966) states that ambivalent behavior is a universal response of all animals to ambivalent stimuli and the result of two (or more) incompatible tendencies that are concurrently elicited. When confronted with an ambivalent stimulus, animals show motoric responses that are appropriate to both tendencies (Hinde, 1966). The current study will investigate whether humans, like other animals, alternate between motoric responses when confronted with an ambivalent stimulus and whether this can explain the common finding in ambivalence research that people tend to respond slower to ambivalent stimuli compared to univalent stimuli (Bargh, Chaiken, Gollwitzer, & Pratto 1992; Bassili, 1996; van Harreveld, van der Pligt, de Vries, Wenneker & Verhulst, 2004). If it is true that people alternate between their responses when confronted with ambivalent stimuli, this may explain why responses to ambivalent stimuli take longer, shedding new light on the dynamics of ambivalence.

Alternation between response was assessed by recording mouse trajectories as participants moved their mouse towards the 'positive' button or 'negative' button in the top left and right corners on the screen in response to a stimulus word. Alternation was operationalized as the amount of times participants changed direction along the x-axis, which indicates a change in response behavior. Results showed that participants were slower to respond to ambivalent words than to univalent words, replicating earlier findings. More importantly, participants alternated more between the two responses when confronted with ambivalent words compared to univalent words. Finally, the effect of ambivalence on response time was mediated by alternation between response options. These findings are in line with work suggesting that conflicting evaluations take longer to integrate into a single attitude (van Harreveld et al., 2004). However, we also show that this happens while giving the response. As such, ambivalence is resolved on the go.

## Presentation C6

**Title: If it's too cold think of how friendly you are: Focusing on communal traits makes the perceived temperature go high**

**Authors: A. Szymkow & M. Parzuchowski**

There is evidence indicating that physical warmth is connected with interpersonal warmth. In studies of Williams & Bargh (2008) participants who held the hot coffee cup perceived the target person as being warmer than did those who held the cold cup. Our studies investigate whether the effect can be bidirectional. Would focusing on communal traits lead to the feeling of physical warmth? If communal qualities overlap with the warmth dimension then thinking of them should lead to the higher estimations of temperature comparing to thinking about agentic traits. In Study 1 we investigated whether focusing on communal traits of the self would lead to perceiving the temperature as higher comparing to focusing on agentic traits. Participants read stories which represented agentic traits or communal traits and were asked to imagine themselves in those situations. Afterwards we asked them few questions about the ambient temperature. The results confirmed our hypothesis. The perceived ambient temperature was higher after thinking about one's communal traits comparing to focusing on agency. In Study 2 we tested the same hypothesis but for perception of others. Participants read a story about Mark or Marta, which emphasized their communal or agentic traits. They answered questions concerning temperature and impressions of target person. Again results confirmed our hypothesis – both temperature and the target person were perceived as warmer after focusing on communion.

## Session D: Impression Formation

### Presentation D1

**Title: Serial and repeated reproduction of personality traits**

**Authors: L. Nunes, L. Garcia-Marques, & H. L. Roediger**

This study was designed to investigate the social transmission of information related to personality traits, in the context of impression formation or memory. Using serial and repeated reproduction paradigms (Bartlett, 1932), we directly compared recall of personality traits in repeated recall across people (serial reproduction) or within successive recalls of the same person (repeated reproduction). We used lists of related personality traits and two types of instructions – memorization or impression formation. In the repeated reproduction condition, we presented each subject one list of 16 words – 10 personality traits plus 6 filler words and asked them to recall the presented list repeatedly four times. In

the serial reproduction condition, a group of four subjects received as study list the recall protocol of the previous subject, creating a chaining reproduction. Our results point to a deleterious effect of serial reproduction, with the last subject in each chain recalling fewer words than the first subject. Also, subjects in the memory condition recalled fewer traits than those in the impression formation condition. These results replicate the existing literature (Garcia-Marques et al., 2010). However, we only obtained false recall of nonpresented personality traits when subjects were presented with social positive lists and instructed to form an impression of personality. Taken together, our results replicate the existing literature on serial reproduction, showing a loss of accuracy in recall as information is passed through an increasing number of social links. Our results are also in accordance with recent findings on the nature of false memories of personality and how valence of the traits used to characterize a person plays a role on constructive memory processes.

## Presentation D2

**Title: Rude humans, robots, and objects: The influence of actor agency on spontaneous and controlled trait inferences**

**Authors: M. Roubroeks, J. Ham, & C. Midden**

Earlier research suggests that people automatically react social to computer agents, just as if they were reacting to other people (Reeves & Nass, 1996). However, to our knowledge, no direct evidence shows that people automatically react social to computer agents. Why would people react socially toward technology? We argue that people's *spontaneous* reactions occur independently of actor agency level (i.e., human vs. computer agent vs. object), whereas people's *intentional* reactions are dependent on actor agency level. We investigated this question in the area of trait inferences. More specifically, we investigated spontaneous trait inferences (STIs) and intentional trait inferences (ITIs) as a result of descriptions of behavior by humans, computer agents, or objects. In the current study, we measured STIs using a relearning paradigm (Carlston & Skowronski, 1994) and we measured ITIs using rating scales. Furthermore, we assessed people's anthropomorphism attributions to humans, computer agents and objects in general, using an anthropomorphism scale (Waytz, Cacioppo, & Epley, 2010). Results showed that, on an implicit level, people formed STIs about humans as strong as about computer agents and objects. In contrast, results showed that, on an explicit level, people strongly formed ITIs about humans, but less about computer agents, and even less about objects. Also, people attributed more anthropomorphic features to humans compared to computer agents and objects. The current study suggests that people's automatic reactions to computer agents are indeed social in nature, but people can control their reactions taking into account actor agency.

### Presentation D3

**Title: The impact of subtle cues to masculinity or femininity in faces on impression formation**

**Authors: M. Walker, M. Wänke, S. Sczesny, & T. Vetter**

People draw personality trait inferences about unfamiliar individuals on the basis of their facial appearance. In three studies we examine the impact of subtle changes in the masculinity or femininity of faces on personality trait judgments and employee selection. Based on a novel approach to manipulate some facial information (e.g., gender information) independent from other information (e.g., identity information) in a natural-looking way (Walker & Vetter, 2009), we subtly manipulated the masculinity or femininity of faces in real face photographs. We expected these changes to have a strong impact on personality trait inferences due to feature-based gender stereotyping. In Study 1, we show that feminine-looking [masculine-looking] target persons are ascribed significantly more feminine-typed [masculine-typed] personality traits compared to masculine-looking [feminine-looking] target persons independent from the target person's gender. Hence, results provide evidence for feature-based gender stereotyping, whereas no indication for category-based stereotyping was found. In Studies 2 and 3, we investigate whether the impression formed due to feature-based gender stereotyping based on facial information can withstand explicitly given information about the masculine- and feminine-typed personality traits of target persons. Using a job application paradigm we independently manipulated the masculinity and femininity of applicants for a project management position via facial appearance and job references. Results indicate that androgynous target persons (i.e., feminine-looking and characterized as masculine and vice versa) seem to be best qualified for a project management position, implying that impressions derived from subtle facial cues bear up explicitly given information about masculine- and feminine-typed personality traits. Taken together, these studies show that subtle cues in facial appearance have a strong impact on impression formation processes – even if much more explicit information about the target person is available.

### Presentation D4

**Title: A matter of overconfidence? - debiasing of the robust anchoring effect**

**Authors: U. Schlattmann**

The anchoring effect has proven itself very robust. Out of the various attempts to reduce the judgmental assimilation in the direction of a provided anchor value, only the specific instruction to think of arguments that contradict the validity of the anchor value has been successful. *Non-specific* forewarnings have repeatedly failed



in that respect. We propose that this may be due to the fact that participants are (over)confident of their judgmental objectivity.

In line with this reasoning, people have been shown to expect others to be influenced by the anchoring effect to a larger extent than they themselves. Although forewarning provides participants with two essential preconditions of judgmental correction – i.e., knowledge about the existence and direction of the biasing influence – they may still refrain from correcting their judgment due to this overconfidence. Based on this reasoning, we hypothesized that forewarnings may constitute an effective debiasing strategy, provided that overconfidence is reduced. Overconfidence has been shown to be particularly pronounced if people have high expertise in the judgmental domain. In our studies, we exploited this naturally occurring variation in overconfidence by having participants work on two anchoring problems for which they had different levels of expertise. Before, participants received a standard forewarning information. In addition, some participants underwent an overconfidence-reduction manipulation in the very beginning. In line with our reasoning, forewarning reliably reduced the anchoring effect in the low-expertise task. Even more importantly, the anchoring effect was also reduced in the high-expertise task if overconfidence had been challenged initially. We replicated these findings with a different overconfidence-reduction manipulation. Our findings show that forewarning can be successful in overcoming the anchoring effect, after all, and suggest that overconfidence may partly drive the occurrence of anchoring effects.

## Presentation D5

**Title: Neural correlates of social judgments about other persons' beliefs**

**Authors: J. Kestemont, N. Ma, N. Van Hoeck, M. Vandekerckhove, & F. Van Overwalle**

Mentalizing or Theory of Mind (ToM) reflects knowledge that other persons than the self, have beliefs about the environment. However, perceivers also make inferences about a situation, and may think that a person's behaviour was determined by a situation or another agent. For instance, if someone buys his friend flowers, the cause of this event could be the situational attribution 'tradition' rather than the person attribution 'romantic person'. We hypothesize that such inferences by the perceiver are precursors of ToM about others. ToM-tasks about others' beliefs often show activity in the Temporo-Parietal Junction (TPJ) and medial Prefrontal Cortex (mPFC). We hypothesize that, assuming that perceivers' own attributions are a precursor of mentalizing about others, they probably rely on the same neural network and thus activate the same brain areas. To study this, we conducted an fMRI-experiment, in which sentences describing an event (E.g. Whala

shows his ticket) were presented to 34 participants, either under intentional (17) or spontaneous (17) instructions. The events induced either situational or person attributions. Participants in the intentional condition were asked to search for a cause in the person or in the situation for each event. Participants in the spontaneous condition were simply asked to pay attention to the sentences. We expect, from previous research, mPFC activity for personal attributions<sup>1-3</sup> and TPJ activity for situational attributions. The results will be presented at the conference.

## Keynote Address II

**Title: What can dogs and wolves teach us about the evolution of social cognition?**

**Author: Zsófia Virányi**

Similarly to humans, non-human animals also adapt their actions to their social environment, and the field of animal social cognition investigates the ways they perceive, interact with, communicate with and manipulate their partners. Studying animal social behaviour is not only compelling by its diversity, but is a prerequisite of determining which cognitive skills are uniquely human. Additionally, investigating which species demonstrate human-like skills or their presumable origins can help in reconstructing the evolution of human social cognition. Various animals have been shown to respond to or learn from others' actions, to evaluate and represent them, and the decisions they make often depend of their sex, personality or actual condition. Reconstructing cognitive phylogenies is a collective exercise that requires the collaboration of several research labs studying various animals. (The ESF Research Network 'CompCog' ([www.compcog.org](http://www.compcog.org)) set out to facilitate such collaboration at the European level.) Only comparing a great number of species can reveal which skills are human-specific, which ones are shared with all closer or more distant relatives of humans, and which ones appeared independently on distant branches of the evolutionary tree. As an example of the latter case, it has been proposed that dogs have evolved several human-like social behaviours because during the course of domestication they were selected to communicate and cooperate with humans – just as happened to humans during the course of their evolution. Comparisons with wolves can help to track the origins of such skills of dogs, and may still serve with a lot of evolutionary surprises.

## Session E: Social Judgment I

### Presentation E1

**Title: Motivated cognition in the advisor-client interaction**

**Authors: B. Jodlbauer & E. Jonas**

Today's society is characterized by an increasing volume and complexity of knowledge. Advisors, who are experts in a certain field, are often hired to improve the quality of a decision (e.g. Harvey & Fischer, 1997, Jungermann, 1999). However, clients cannot always be sure that an advisor is actually using an advantage in knowledge to act in the client's best interest. Economic principal-agent theory (e.g. Ross, 1973; for an overview, see Eisenhardt, 1989) directly deals with the problem that people's tendency to behave in a self-interested manner leads to strategic behavior. Our research wants to take a closer look in which context do advisors show self-interested, strategic behavior and how does this affect the client's acceptance of advice. Furthermore, we want to concentrate on the influence of self-interest on information processing of advisors and if self-interested advisors consciously inform their clients "unfavorable". Therefore, we assessed if self-interested advisors differed regarding their recollection of (conflicting, dissonant) information. Finally, we want to describe how self-interested behavior can be reduced and handled. Trustworthiness could here be identified as important process variable which can explain the relationship between self-interested behavior and the acceptance of advice.

## **Presentation E2**

**Title: Everyday conceptions of heroes: A prototype approach**

**Authors: E. L. Kinsella, T. D. Ritchie, & E. R. Igou**

Over centuries various definitions of heroes have evolved in literature, philosophy and popular discourse. In research the concepts of heroes, heroic behaviour and heroism remain fuzzy and unclear. The present research aimed to explore the content and prototypical structure of these concepts by lay persons. Study 1 aimed to garner a wide range of prototypical features of heroic individuals and heroic behaviours. Participants ( $N = 189$ ) generated open-ended characteristics of heroes, which were grouped into 26 meaningful categories. In Study 2, participants ( $N = 365$ ) reliably rated the centrality of these features. The features were then classified as central (e.g., courageous, self-sacrifice, moral integrity), or as peripheral (e.g., intelligent, empathic, humble). Using a reaction time paradigm (Study 3), participants ( $N = 34$ ) responded most quickly to central characteristics of heroes, than peripheral characteristics. In Study 4, participants ( $N = 25$ ) were more likely to remember central (versus peripheral) words during free-recall tasks. Studies 1-4 consistently support the idea that the concept of heroes can be viewed as a prototype, with more or less representative features. Finally, Study 5 ( $N = 212$ ) investigated the distinguishing characteristics that people associate with influential persons. Heroes, role models and leaders were not rated equally across the 26 characteristics (obtained in Study 1). For example, heroes were rated higher on *self-*

*sacrificing* and *saving others* than leaders or role models. Overall, these findings provide us with a clearer picture of the features that people associate with heroes, and how that differs from lay conceptions of leaders and role models. The present research findings can inform definitional issues, theory and future research on the topic of heroes. Further clarification and understanding about how and when heroes provide positive benefits to individuals and groups is likely to have implications for theory and practice.

### Presentation E3

**Title: “The second man” – Does mere social presence affect performance in a negative priming paradigm?**

**Authors: A. Rothe & K. C. Klauer**

What causes social facilitation/inhibition effects? Attentional focusing and dominant response theory of social facilitation are the most prominent theories known to psychology students and tested in recent research on mere social presence effects. Although recent studies provide evidence of the attentional focusing account resulting in smaller Stroop interference effects under social presence conditions (Sharma, Booth, Brown, & Huguet, 2010), other work on visual-spatial attention proposes an increase in cognitive load due to distraction, that diminishes working memory capacity and is unrelated to processes of attentional focusing (Wühr & Huestegge, 2010).

In the present research different theories of social facilitation are tested by using a negative priming paradigm in order to depict the influences of mere presence on processing of distractor information. First results indicate smaller negative priming effects and a decrease in distractor repetition benefits under social presence conditions compared to subjects working alone, whereas attended repetition effects were not moderated by social presence. These results support an attentional focusing effect on target information associated with a decrease of distractor processing that leads to smaller negative priming and distractor repetition effects. Therefore, the dominant response account had to be rejected. In the presented paper, processes underlying the observed effects and theoretical implications for future research will be discussed.

### Presentation E4

**Title: Peer interaction and cognitive development: The role of gender at 6-7 and 10-11 year-olds**

## **Authors: A. Zapiti**

The social context of an interaction is not a static entity but is continuously created and recreated by those involved as a consequence of various asymmetries underlying the interaction. This study investigates the effect of these social asymmetries on children's interactions as well as on their cognitive development. The research was carried through a pre-test, interaction, post-test design. Two-hundred and forty children of the first grade (6.5-7.5 years old) and 240 children of the fifth grade (9.5-10.5 years old) participated in the study. The children had to work in pairs with a partner of a different level of knowledge of a spatial-transformation task (compensators and non-compensators) and the same- or opposite-sex in order to find a joint solution. Cognitive progress was assessed with an immediate after the interaction post-test and a delayed post-test two weeks after the interaction. The children of the first grade were also administered with two tests investigating their knowledge of gender marking of toys and objects whereas the older children completed a questionnaire concerning gender stereotypes. The results of this work indicate how social representations of gender change over time and especially how does their influence on peer interaction and consequently cognitive development change.

## **Session F: Face Perception**

### **Presentation F1**

**Title: Investigating desensitization to media violence using facial expressions**

**Authors: K. A. Fanti**

Repeated exposure to entertainment violence is believed to be a major contributor to aggressive and violent behavior in real life, since media violence can instigate imitation, make real-world violence more acceptable, distort viewers perceptions of real world crime and violence, desensitize viewers to the suffering of victims of violence, and increase the accessibility of violent constructs in memory. The mechanism that will be explored in the current study is *desensitization* to media violence, which is defined as the diminished emotional responsiveness to a negative or aversive stimulus after repeated exposure to it. In one study that we have carried out in our lab, we provided evidence that even brief exposure to media violence may alter people's reactions to violence, which might result in increased aggression, reduced sympathy for victims of violent acts, decreased probability of helping victims, and so on. Our aim in the current study is to examine how participants get desensitized to media violence in a short period of time using both questionnaire response and facial expressions. The facial expressions will be measured with a software that automatically analyzes facial expressions, including

angry, neutral, happy, sad, scared, and surprised facial expressions. We also aim to investigate whether aggressive behavior and psychopathic traits relate to individual differences in the process of desensitization. In addition, we will examine whether short-term desensitization is unique to violent stimuli or whether it reflects a more general process of desensitization. To test this possibility we will include a condition in which participants view a series of video segments that contain comedic elements instead of violence. The current research has important theoretical and practical implications. First, it will allow us to gain a deeper understanding for the process of desensitization to media violence. Second, it will determine whether personality characteristics mediate the effects of media violence.

### **Presentation F2**

**Title: The role of facial trustworthiness in evaluative effects of attention perception**

**Authors: E. Treinen & O. Corneille**

Several recent studies (Bayliss, Frischen, Fenske, & Tipper, 2007; Bayliss, Paul, Cannon, & Tipper, 2006; Corneille, Mauduit, Strick, & Holland, 2009) showed that stimuli are evaluated more favorably when they are perceived to be objects of attention in others. Except for emotional expression, little is known about how target characteristics moderate this mimetic desire effect. The present research examined the role of target trustworthiness in this effect. Fifty-five psychology students ( $M_{age} = 19.55$ ,  $SD = .90$ ) saw associations of video excerpts of a three-dimensional trustworthy and an untrustworthy face (Oosterhof & Todorov, 2008) associated with 4 neutral art paintings on a computer screen. The two faces turned their attention towards one of the paintings and away from another one, respectively. After exposure, pictures were evaluated. Results revealed that participants preferred looked-at-paintings when they were associated with a trustworthy ( $M = 6.38$ ,  $SD = 1.87$ ) rather than an untrustworthy face ( $M = 4.60$ ,  $SD = 2.02$ ),  $t(55) = 4.47$ ,  $p < .001$ . In sharp contrast, looked-away-paintings were liked better when associated with an untrustworthy ( $M = 6.31$ ,  $SD = 1.97$ ) rather than a trustworthy face ( $M = 4.75$ ,  $SD = 2.36$ ),  $t(55) = 3.14$ ,  $p < .004$ . Questions about the underlying mechanisms of the mimetic desire effect and implications for associative learning processes are discussed.

### **Presentation F3**

**Title: Effects of status on face perception**

**Authors: T. Ong**

It is widely agreed that social hierarchy is the basic form of social organization across species. Humans are especially influenced by social status positions because they obtain much of what they need from their social groups (rather than the environment). However, little is known about the effects of status on basic social perception. Two studies were designed to examine status differences in facial perception. Previous models of face perception suggest that valence evaluation of faces (e.g., perceived trustworthiness) is the adaptive mechanism for guiding appropriate social behavior. In the absence of clear emotional cues, trustworthiness judgments signal whether the person should be approached or avoided. In both studies, participants were randomly assigned to a high or a low status group. In Study 1 trustworthy, neutral or untrustworthy faces were presented subliminally, and subsequently participants made a forced-choice recognition test. Low status participants showed greater sensitivity to untrustworthiness. In Study 2, participants were presented with a series of videos of targets displaying either a Duchenne (true) smile, or non-Duchenne (fake) smile. Analyses revealed that although participants did not differ in their ability to discriminate between both types of smiles explicitly, low-status participants showed lesser preference to work with individuals displaying non-Duchenne (fake) smiles. Study 3 examines sensitivity and behavior orientations to varied emotional expressions. Taken together, the results suggest that status yields differential facial perceptions that fulfill adaptive needs. One possible explanation is that low-status activates a protective mechanism in which low-status individuals are selectively attentive towards those with untrustworthy and unreliable faces as they are potentially detrimental to their existing low-position.

#### **Presentation F4**

**Title: When facial muscle activation meets rapid evaluation processes**

**Authors: G. R. Semin & F. Foroni**

Rapidly evaluating the beneficial and detrimental features of our social and physical environment is critical for adaptation. We hypothesized that differential activities of facial muscles accompanying evaluative processes serve as proprioceptive cues giving rise to a response time advantage when classifying targets congruent with a prime over targets that are incongruent – an advantage not manifested when facial muscles are blocked. This hypothesis was supported in Experiment 1, with photos of angry and happy facial expressions as target and primes. The possible contention that blocking facial muscles constitutes a distraction was excluded with a control condition that entailed holding a pen with one's teeth without blocking muscle movements. The results of the second experiment with positive and negative adjectives also confirmed the generality of the hypothesis. The implications of this novel contribution and the increasing attention to the role that the body plays in human mental functioning are discussed.

## Session G: Comparative Cognition

### Presentation G1

**Title: Human infants' sensitivity to, and representation of, social dominance**

**Authors: O. Mascaro & G. Csibra**

Humans and other primate species are known to monitor relationships of social dominance. However, the ontogeny of this capacity is mostly unknown. This research uncovers part of the content and representational format of humans infants' intuitive notion of social dominance. We defined dominance as the capacity to prevail when agents have conflicting goals, and tested infants with violation-of-expectation paradigms. Twelve-month-olds (but not 9-month-olds) expect the hierarchical relationship between two individuals to remain stable from one conflict (competition for a ball), to another, similar type of conflict (competition for a cube). Fifteen-month-olds (but not 12-month-olds), extend their expectations across completely different conflict situations (from a competition to occupy a place to a competition for a cube). Subsequently, part of the content of infants' representation of dominance relationships is that they are stable, and that dominant individuals prevail when their goals conflict with those of their subordinates. Twelve- and fifteen-month-olds do not extend their expectations of dominance to unobserved relationships. Moreover, after observing 'A' being dominant over 'B', and 'B' being dominant over 'C', 15-month-olds expect these two relationships to remain stable. But they do not infer that 'A' is dominant over 'C', hence do not expect dominance relationships to be always transitive, contrary to what would happen if infants represented dominance as an individual property organised on an ordered scale. Thus infants represent dominance as a social relationship between agents. The documented sensitivity to observed dominance relationships in many non-human primates species and in young infants raises the possibility that some of the mechanisms allowing to deal with dominance may have evolved in common ancestors to human and present-day non-human primates, and may be shared by several nonhuman species. Whether the characteristics of humans' intuitions about social dominance identified here may also be found in non-human primates will be discussed.

### Presentation G2

**Title: A comparative perspective for the study of early face preferences: Domestic chicks as an animal model**

**Authors: O. Rosa Salva, L. Regolin, & G. Vallortigara**



There has long been a debate as to whether infants' preference for looking at face-like stimuli is determined by the presence of a predisposed representation of faces' appearance, or by non-specific biases favoring whichever stimulus presenting certain low-level perceptual properties (e.g. vertical asymmetry in contrast distribution, component spatial frequencies). The present work investigated spontaneous preference for face-like stimuli in two day-old chicks (*naïve* with respect to the arrangement of the internal face's features), controlling for the role of the low-level properties. Chicks were tested for their spontaneous choices between paired stimuli: a preference was scored when a chick approached one of the two stimuli. Chicks showed a preference for faces independent from component spatial frequencies or vertical asymmetry in contrast distribution. In order to be able to draw a more direct comparison with human data, we also tested newborn babies using comparable procedures with respect to those employed with chicks. Remarkably, using the same stimuli employed with chicks, newborn's displayed a spontaneous preference for a face stimulus compared to a frequency-matched noise stimulus. Existing evidence shows that human newborns' face preference is sensitive to variations in contrast polarity (i.e. is suppressed if stimuli consist of negative images of faces). This is in line with the presence of an early preferential attention for objects that resemble faces as they appear under natural top-lit illumination. We investigated the influence of contrast polarity reversal on chicks' choice behaviour. Chicks' preferences resulted to be sensitive to contrast polarity, similarly to human data (i.e. were abolished if stimuli were negative images). However, intriguing differences between the two species emerged after manipulations of the appearance of face features (particularly relevant was the role of the eye region). Results are discussed in terms of similarities/differences in the adaptive needs of the two species.

### Presentation G3

**Title: Enculturation versus domestication in dogs' processing of human faces, a study of human-raised wolves**

**Authors: A. Racca, D. Újváry, K. Guo, K. Meints, A. Miklósi, & D. Mills**

Like other highly significant functions (language, emotions, etc.) face processing is subject to brain lateralisation, with a Right Hemisphere (RH) dominance to the task. This feature has been found in few other mammal species, beyond humans. A recurrent question is to know whether this trait is organized at birth towards certain types of face (i.e. conspecific faces) or whether it has its origin in a more general system that becomes specialized with experience. Domestic pet dogs (*Canis familiaris*) manifest a RH dominance when processing human faces [as inferred through the preferential use of the contralateral visual field (i.e. left) when looking at them] but do not do so towards conspecific faces (Guo et al. 2009\*). Intense

exposure to humans is likely to be a determining factor in the establishment of this trait. However, dogs receive both phylogenetic (domestication) and ontogenetic (enculturation/socialization) exposure to humans. In order to assess which type of exposure led to this trait in dogs, we examined this phenomenon in a group of human-raised wolves (*Canis lupus*), presenting high ontogenetic but no phylogenetic exposure to humans. Four socialized wolves were presented with pictures of human faces, wolf faces and objects. The analyses of their eye movements while looking at the pictures showed that for each wolf, human face pictures elicited more initial fixations on the left side than the other types of pictures presented. When pooling the data from the 4 wolves together, a significant left bias was observed towards human faces ( $Z=-2.81$ ;  $p=0.005$ ) but not towards conspecific faces ( $Z=-0.56$ ;  $p=0.58$ ) or objects ( $Z=-0.45$ ;  $p=0.65$ ). These results suggest that phylogenetic exposure to humans is *not necessary* for *Canis* species to establish a RH dominance in processing human faces. The question whether ontogenetic exposure to humans is a prerequisite for this skill will be examined in future research.

#### Presentation G4

**Title: Personality and social coping strategies in dog puppies**

**Authors: S. Riemer**

Like personality in humans, animal personalities are often considered as general characteristics with underlying genetic and physiological mechanisms, leading to consistent behaviour patterns. For instance, personality traits in human children and adults are related to their behaviour in interpersonal conflict. In the current study, we assessed how human directed social behaviour in non-conflict situations is related to strategies of conflict resolution in dog puppies. Due to their unique adaptation for socialcommunicative interactions with humans, leading to the hypothesis of convergent evolution in the social domain, dogs can be considered a suitable species for modelling social behaviour and personality.

## Session H: Construal Levels

#### Presentation H1

**Title: The effect of psychological distance on embodiment of cognition**

**Authors: M. Gilead & N. Liberman**

Recent theories of "embodied cognition" (e.g., Barsalou, 1999), suggest that people represent the world in a concrete, modality-specific manner. Contrastingly,

Construal Level Theory (CLT; Liberman and Trope, 1998) suggests that while the representation of psychologically proximal entities is concrete and specific, distant objects and events are represented using a more abstract mental code. Thus, CLT predicts that extent of embodiment would decrease with psychological distance. I will review two experiments that examined this prediction and show that psychological distance modulates the degree to which perceptual and motor components are evoked during conceptual processing. I then discuss the significance of a link between psychological distance and embodiment of cognition.

## Presentation H2

**Title: Applying Construal Level Theory to the Distinction between Proximal and Distant Senses: The Effect of Touching vs. Seeing on Category Width and Creative Cognition**

**Authors: A. Shpizaizen & N. Liberman**

The present research applies construal level theory (CLT; Liberman & Trope, 2008) to the classic distinction between proximal senses (touch and taste-smell) and distant senses (hearing and sight). Two studies examined the hypothesis that experiencing a stimulus with distant (vs. proximal) senses would be accompanied by a higher (vs. lower) construal level of that stimulus. Two characteristics of abstract (higher level construal) thinking were tested: the use of broader categories when classifying objects (Study 1) and creativity, as measured by generating numerous alternative uses for everyday objects (Study 2). Consistent with our predictions, Study 1 showed that in a sorting task, seeing objects (distant sense condition) made participants classify them into fewer, broader categories than touching the same objects (proximal sense condition). Study 2 showed that when touching an everyday object (proximal sense condition) participants generated fewer alternative uses for that object, in comparison to participants who saw the same object but didn't touch it (distant sense condition). These studies call for a closer look into direct sensory experience, which, in CLT, is the anchoring point (i.e., the "zero distance") of the four psychological distance dimensions (temporal distance, social distance, spatial distance and hypotheticality). This research suggests that not all direct sensory experiences are equally proximal.

## Presentation H3

**Title: The Effect of Construal Level on Analogical Thinking**

**Authors: O. Shapira & N. Liberman**

Analogical thinking involves perceiving relational similarities across contexts and using them in reasoning and learning (Gentner & Colhoun, 2010). It relies on a relative focus on relational structure rather than on more superficial perceptual or semantic attributes (Gentner & Colhoun, 2010; Holyoak, 2005). Based on construal level theory (CLT; e.g., Liberman & Trope, 2008), I conceptualize relational structures as high-level construals and surface attributes as low-level construals, and propose that high-level (vs. low-level) construal promotes analogical thinking. I present two studies that supported this prediction. In both studies construal level was manipulated by asking participants to generate categories (high-level condition) or exemplars (low-level condition) for a list of words. Analogical thinking was measured with picture-mapping tasks, where participants could match objects either based on relational similarity or on perceptual similarity. The pictures in Study

1 presented corresponding perceptual relations (e.g., gradually increasing size), whereas pictures in Study 2 presented corresponding causal relations (e.g., giving). In both studies, participants in the high-level condition were more likely than participants in the low-level condition to match objects based on relational similarity rather than on perceptual similarity. The findings suggest that factors that induce a level of construal (e.g., psychological distance, social power, novelty, fluency) should enhance performance on a variety of tasks requiring analogical thinking.

#### **Presentation H4**

**Title: So much effort, but so happy: The impact of effort on affective forecasting**

**Author: C. Toma**

Whenever we invest a considerable amount of effort in a task, most of us expect it to pay off, materially or emotionally. However, years of research have shown that people are not accurate when predicting their future emotions. In the current research we investigated whether affective forecasts are influenced by the effort people invest in a task, provided that the task is successful. In Study 1 PhD psychology students waiting for an editorial decision were asked how much effort they had invested and how happy they would be if their paper were accepted. Results revealed that effort invested in the task was positively related to one's affective forecasts, an effect mediated by the perceived quality of the paper: The more participants had invested effort, the more they estimated that their paper was good, and by consequence, the more they predicted to feel increased happiness in case of acceptance. Interestingly, this effect was reversed for participants experienced in publishing manuscripts. In Study 2 we replicated this effect using an experimental manipulation of effort. Participants produced an advertising slogan in a high (vs. low) effort situation and were then asked to forecast their affective reactions in case of winning an advertising contest. The functional dimension of anticipated happiness in sustaining current effortful tasks is discussed.

#### **Keynote Address III**

**Title: Implicit Cognition as a Relational/Propositional Process: Challenging the Associative Assumption in Implicit Attitude Research**

**Authors: D. Barnes-Holmes**

The study of implicit attitudes has grown at a remarkable rate within the domain of social psychology and beyond. The source of such attitudes is typically seen as resulting from an underlying associative network, which competes or interacts with propositional reasoning processes. The current lecture will consider a relatively new

implicit measure, the Implicit Relational Assessment Procedure (IRAP), which was derived directly from the assumption that the source of implicit attitudes lies not in “raw” associations but in immediate and simple relational responses (or mini propositions). The lecture will present a description of the IRAP, and a summary of the key findings obtained thus far. From this summary, it will be shown that implicit attitude effects are obtained when the IRAP targets relational (or propositional) rather than associative processes, thus supporting the argument that at least some if not most of the implicit attitude effects reported in the literature are driven by relational (or propositional) rather than associative processes. The lecture will conclude with a presentation of the Relational Elaboration and Coherence (REC) model, which aims to explain the relationship between implicit and explicit attitudes in terms of the coherence or incoherence that obtains between simple-and-immediate versus elaborate-and-extended relational responding.

## Session I: Social Judgment II

### Presentation I1

**Title: Don't talk behind my back! Spatial direction of the feedback suggests slander**  
**Authors: M. Parzuchowski & N. Frankowska**

Vast amount of evidence supports the notion that our cognition relies on stored records of our sensory and motor states (Barsalou, 1999; Barsalou, et al, 2003). The authors asked whether concrete spatial experience of “talking behind one's back” triggers an abstract meaning behind this metaphor - negative reinterpretation of verbal feedback given. In Experiment 1, participants filled out bogus social intelligence test and were given a false audible feedback about their performance being average. Their previously recorded score was played either in front of them or behind their back. As predicted, participants exhibited weaker preference for their score, believed the test was less valid and their self-esteem was significantly lower when their scores were presented behind their backs. In Experiment 2, blindfolded participants were exposed to audible task judgment on different listening distances. When the information given referred to the participants' future activities and was presented behind their backs it was judged as less probable and less entertaining. Mediating role of disfluency and source validation is discussed. Taken together, the two experiments suggest that spatial experience of abstract metaphors can influence people's self-esteem.

### Presentation I2

**Title: Implicit minority and majority influence**

## **Authors: N. Dickel**

A classic persuasion paradigm is used to investigate the influence of numeric minorities and majorities not only with an explicit but also with an implicit measure of attitude. Typical results of mere consensus studies are replicated with explicit measures of attitude. A majority's influence on attitudes towards a fictitious topic is more successful than a minority's influence. This effect is mediated by valence of thoughts and moderated by quality of arguments. Interestingly, results of the evaluative priming task depend on the source of the message, too. Evaluative priming effects are enhanced by a minority influence framing compared to majority influence. Moreover, the difference in response times to positive versus negative targets is increased by the minority versus majority influence framing.

## **Presentation 13**

**Title: Perceived personal control and social support in the maternity ward and parenting self-efficacy of new mothers**

**Authors: E. Kodysova**

Self-efficacy is a theoretical resilience concept stemming from social cognitive theory. It describes one's belief in one's control over particular domains of one's life. Entering motherhood is a significant stage in cognitive development, bringing along new challenges for a woman's self-efficacy, especially in the domain of maternity. High maternal self-efficacy results in a more appropriate parenting behaviour, more developmentally advanced children and decreased risk of postpartum depression and maternal dissatisfaction. Recent studies suggest that positive childbirth experience is related to higher maternal self-efficacy. The presentation brings preliminary results of a current longitudinal quantitative research exploring psychosocial determinants of childbirth experience on the maternal self-efficacy development. Women in the last trimester prior to birth of their first child fill in questionnaires exploring their pregnancy history, socioeconomic status, social support, attitudes towards childbirth, childbirth self-efficacy (Childbirth Self-efficacy Inventory) and maternal self-efficacy (Parenting Expectations Survey). Six to ten weeks after the childbirth, they fill in a second set of questionnaires, focusing on events of labour, birth and postpartum, personal control during childbirth and support provided by staff (Support and Control in Birth inventory) and partner during childbirth, social support and maternal self-efficacy. Relative changes in maternal self-efficacy are correlated with childbirth self-efficacy, personal control during childbirth and support provided by staff and partner during childbirth, controlling for other measured variables. Pilot study results show a relationship between childbirth experience and maternal self-efficacy; the current study will include at least 150 participants to confirm the relationship statistically.

## Presentation I4

**Title: Breaking the ice: How physical warmth shapes social comparison consequences**

**Authors: J. Steinmetz & T. Mussweiler**

Social judgments take place in a concrete physical context. Recent research has explored how incidental physical experiences such as warmth influence social perception and behavior. However, we do not yet know if warmth affects self-evaluation. The present research seeks to examine this possibility by focusing on a central self-evaluative mechanism, namely social comparison. We hypothesized that physical warmth induces a general similarity focus that in turn fosters assimilative social comparison consequences and tested this in three studies. Study 1 established that warmth increases the perceived similarity of object pairs. In Study 2, participants compared themselves to a physically strong or weak standard. On warmer but not on colder days, they assimilated self-evaluations towards the target. Study 3 showed a similar pattern in a controlled laboratory setting. Together, these findings demonstrate that physical warmth shapes social comparison processes and as a consequence influences self-evaluation.

## Session J: Affect & Cognition

### Presentation J1

**Title: The influence of positive and negative affect on the pursuit of conscious goal standards**

**Authors: J. V. Bittner**

Research on goal setting has mainly focused on consciously activated goals, such as goals of high versus low difficulty (Locke & Latham, 1990; 2002), whereas research on priming has studied the activation of nonconscious goals on an implicit level (e.g. Bargh, 2006 EJSP). The present research integrates both types of goals in that it addresses the combined influence of high / low conscious goals and nonconscious influences. In two experiments, it was examined whether primed goals or affective states change how conscious goals are processed and thus influence motivation and task performance.

In a first study, participants received a goal priming manipulation and then were instructed to also set conscious goals for a subsequent performance task. Results provided evidence that performance outcomes were influenced by an interaction between participants' nonconscious and conscious goals. Depending on which goal was primed, performance outcomes were either assimilated to the



conscious goal or contrasted away from it. Study 2 extended this reasoning to affect and demonstrated that positive versus negative affect results in the same interaction effect with conscious goals as primed goals. When participants were experiencing positive affect, high conscious goals resulted in better performance than low goals (an assimilation effect), whereas when experiencing negative affect, low goals resulted in better performance than high goals (a contrast effect). These results provide evidence for cognitive and motivational processes during goal pursuit in which conscious goals are used as comparison standards (Bittner, 2011 EJSP). Conscious goal standards are shown to combine with implicit influences like primed goals or prior affective states.

### **Presentation J2**

**Title: Mood and the impact of individuating information on the evaluation of ingroup and outgroup members: The role of mood-based expectancies**

**Authors: A M. Burger & R. Ziegler**

This research investigates the role of mood-based expectancies regarding a target's group membership for the impact of individuating information on target judgments. We argue that target judgments in both positive and negative mood may be more or less affected by individuating information depending on whether the target is an ingroup member or an outgroup member. Specifically, in a competitive intergroup setting it should be less congruent with mood-based expectancies when individuals in positive (negative) mood learn that an outgroup (ingroup) member rather than an ingroup (outgroup) member has succeeded. Hence, unexpected (i.e., mood-incongruent) category information should elicit more attention than expected (mood-congruent) category information. More important, subsequent individuating information (high vs. low target competence) should be processed more effortful and influence target judgments more strongly given mood-incongruent (vs. mood-congruent) category membership. Experimental findings support these predictions. Results are discussed in regard to implications for different research domains.

### **Presentation J3**

**Title: Does activation really spread? A meta-analysis of affective priming**

**Authors: J. Burghardt & C. Unkelback**

Affective Priming is a widely used paradigm in the social cognition domain to unobtrusively measure attitudes. Apart from its use as attitude measure it is also widely employed in the research on cognitive processes, especially the automaticity of attitude activation, primacy of affect, or generally context influence on

evaluations. Still the theoretical basis of the paradigm is not fully understood. Three major theories are used to explain priming results: Spreading activation, response conflict and compound cue theory. To discriminate between the theories we conducted a meta-analysis on the 25 years of research about the priming paradigm. We included 100 studies of sequential priming with clear valence of prime and target. The results challenge spreading activation theory: No congruency effect occurs if not evaluative decisions but semantic decisions are required. This is problematic for the assumption that semantic and evaluative features are stored together. Further priming effects are clearly influenced by congruency proportion (proportion of congruent relative to all trials), this effect of list configuration is not predicted by spreading activation, but in line with response conflict accounts. Still spreading activation is the only theory that satisfactorily explains priming effects in the naming task, which are reliable if attention is drawn to the evaluative dimension of the priming stimuli. Theoretical implications as well as application suggestions regarding timing of the priming task, stimuli set and instruction will be discussed.

#### **Presentation J4**

**Title: Exploring the specificity and mechanisms of emotional information processing in an emotional priming paradigm – ‘Cold’ semantic extraction of specific information?**

**Authors: M. Rohr & D. Wentura**

Because of the evolutionarily important functions of emotions, emotional information should - already under short and masked presentation conditions – be processed in such detail that quick and adequate reactions can be initiated. However, the detailedness of the emotional information that can be extracted under short and masked presentation conditions is a matter of debate. Many studies support the assumption that only a crude analysis of valence can take place under these conditions (e.g. Murphy & Zajonc, 1993), recent evidence, however, suggests that emotional information can already at that point be processed in more detail (Ruys & Stapel, 2008). We (Rohr, Degner & Wentura (in press)) investigated the specificity of emotion processing under short and masked presentation conditions in several studies, using a modified variant of an affective priming task. Faces with happy, angry, sad, fearful, and neutral expressions were presented as masked primes followed by emotional targets (faces or words). Participants’ task was to categorize the target emotion. Analyses revealed a significant congruency effect, i.e., the categorization of targets was faster if they were preceded by a prime of the same emotion. Further analysis indicated that this effect was mainly due to the contrasts happy vs. negative emotions and anger vs. sadness/fear. Thus, our results indicate that, beyond valence, specific aspects of emotions might be automatically disentangled, although the specific emotion might not be recognized under such conditions. In a further study, we aimed at investigating the potentially

underlying processes by using spatial-frequency filtered faces as primes under supraliminal presentation conditions. Spatial frequency-filtered stimuli have been found to affect the amygdale in different ways (Vuilleumier, Armony, Driver, & Dolan, 2003) and can thereby help to distinguish ‘cold’ semantic and ‘hot’ emotional processing. Results indicate that ‘cold’ semantic rather than ‘hot’ affective processing underlies the effects in that paradigm.

## Presentation J5

**Title: When an implicit measure leads to explicit liking: Conditioning with the affect misattribution procedure**

**Authors: R. Weil & E. Walther**

The Affect Misattribution Procedure (AMP; Payne, Cheng, Govorun, & Stewart, 2005; Payne, Hall, Cameron, & Bishara, 2010) is understood as an indirect measure. In the standard procedure, participants are presented repeatedly with a valenced prime, followed by a neutral target. Participant’s task is to evaluate the target according to its pleasantness. The ideograph is evaluated positively when it was preceded by a positive prime and negatively when it was preceded by a negative prime. It is postulated that affect misattribution underlies this effect. Recently, a similar mechanism, namely implicit misattribution, has been postulated to underlie Evaluative Conditioning (EC; Jones, Fazio, & Olson, 2009). EC refers to the change of (dis)liking that is due to the pairing of stimuli (De Houwer, 2007). In a prototypical EC study, a neutral object is repeatedly presented with a liked or disliked object. The common result is a shift in valence of the formerly neutral object, which is then evaluated according to the valence of the (dis)liked object. It can be speculated that affect misattribution could not only lead to a momentary influence of the prime on the target evaluation, but could also lead to EC, which can be measured in the targets when they are presented again, isolated from the primes, after the AMP procedure. To test this prediction, participants completed an AMP and afterwards, attitudes towards targets were assessed directly and indirectly. The direct attitude measure revealed a significant EC effect. Targets which were paired with positive primes were evaluated more positively than targets which were paired with negative primes. Interestingly, no EC was obtained in the affective priming task. These results are discussed with regard to their implications for the AMP as an indirect measure on the one hand and the processes underlying EC on the other hand.

## Session K: Stereotypes & Prejudice

## Presentation K1

**Title: Explanatory heuristics in social perception - how they can affect stereotyping**

**Authors: A. Grabowski & P. Broemer**

Three experiments investigated whether essentialist versus non-essentialist explanatory heuristics determined how perceivers attribute stereotypical and counter-stereotypical behaviours. Perceivers who were semantically primed with nature (biology) attributed stereotypical behaviours to dispositional factors and counter-stereotypical behaviours to situational influences. This situational discounting of counterstereotypical evidence strengthened stereotypical perceptions of the social category. In contrast, perceivers primed with nurture (socialisation) as an explanatory heuristic showed less stereotyping when confronted with counter-stereotypical evidence. This finding suggests that beliefs in the efficacy of socialisation to elicit stereotypical behaviour can undermine the inductive potential of a social category. Study 3 further showed that attribution biases could contribute to the perseverance of beliefs about the causes of stereotypical behaviours.

## Presentation K2

**Title: Changing stereotypes: How level of information processing influences the impact of stereotype-inconsistent behaviour.**

**Authors: H. Greijdanus, T. Postmes, M. Van Zomeren, & E. H. Gordijn**

Stereotypes are remarkably resistant to change, even if people encounter inconsistent information. The present studies consider the characteristics of stereotypes as socially shared cognitions. Stereotypes are “our” perceptions of “them”, meaning they are socially shared abstractions. There are two aspects to this: (a) information that is processed at a *global* level is more likely to become included in a stereotype, and (b) stereotype-relevant information that is interpreted collectively is more likely to be processed globally. We assume that stereotypes are both created and modified at this global processing level. Ironically, we predict that encountering stereotype-inconsistent information leads to adoption of a more *local* level of information processing, reducing the likelihood of this information affecting the stereotype. However, people may overcome this effect of stereotype-inconsistency when they expect to interpret this information together with others in their in-group. If the interpretation of the stereotype-(in)consistent information is socially shared, it is likely to be processed more globally.

We describe two studies revealing the cognitive processes underlying stereotype change. When individuals process concrete information about stereotype inconsistent behaviour of out-group members individually, they do so at a local

processing level, and therefore discount the inconsistent information. No generalization of inconsistent information to stereotype takes place. However, when individuals process stereotype-inconsistent information quasi-collectively (i.e., in the expectation of interpreting it together with others), they do this at a global processing level, and begin to incorporate the inconsistent information into the stereotype.

### Presentation K3

**Title: Generalized implicit and explicit prejudice: What does the implicit association test really measure?**

**Authors: R. Bergh & N. Akrami**

The idea of prejudice as a tendency that can be generalized from one target to another has been well examined using explicit measures. On the other hand, less is known about this tendency for implicit measures. Likewise the relations between personality, ideology and implicit prejudice have received minimal attention. In three studies ( $N = 100, 104$  and  $143$ ) we examined the notion of generalized prejudice for both explicit (self-reports) and implicit (implicit association test; IAT) measures. Also, we expected personality (Agreeableness and Openness to Experience) and ideology (Right-Wing Authoritarianism and Social Dominance Orientation) variables to be more strongly related to explicit than implicit prejudice. In all three studies, factor analysis disclosed that the implicit measures loaded on one factor and the explicit measures on another. Thus, we found support for separate generalized explicit and implicit prejudice factors. We also found the implicit measures to have a weaker factor solution than the explicit measures. Furthermore, the ideological and personality variables were related to explicit, but not implicit, prejudice in all three studies. These results have major implications for the debate about the explicit-implicit distinction of prejudice and the question about what IAT actually measures. The results point toward different constructs underlying explicit and implicit prejudice instead of two types of measures for the same construct as proposed by some researchers. These studies also indicate that individual differences in implicit prejudice cannot be understood from the differences in people's personalities that explain explicit prejudice. The insights from these studies hint that personal endorsement of prejudice is more pronounced in explicit than implicit measures.

### Presentation K4

**Title: Differentially dangerous? Phenotypic racial stereotypicality increases implicit bias among ingroup and outgroup members**

**Authors: K. B. Kahn & P. G. Davies**

The current studies investigate whether phenotypic racial stereotypicality (e.g., the extent to which individuals exhibit the physical features typical of their racial group) can exacerbate implicit racial bias in split-second “shoot/don't shoot” decision-making situations (see Correll, Park, Judd, & Wittenbrink, 2002). Because of their greater association with stereotypes linking Blacks with danger, it is hypothesized that high stereotypic (HS) Blacks (i.e., those with darker skin, broader noses, and fuller lips) will experience more implicit stereotyping than low stereotypic (LS)

Black or White targets. In two studies, non-Black (Study 1) and Black (Study 2) participants completed a quick shoot/don't shoot videogame, in which target stereotypicality (HS Black, LS Black, White) and object type (neutral, gun) were manipulated. Errors (incorrectly shooting an unarmed target and incorrectly not shooting an armed target) were measured. Results from both studies confirmed that high stereotypical (HS) Black targets elicited stronger implicit bias in split-second shoot/don't shoot situations than low stereotypical (LS) Black targets or White targets. Specifically, signal detection analyses revealed that a lower shooting criterion was adopted for HS Black targets, indicating a greater willingness to shoot HS Black targets. This lower shooting criterion resulted in more pronounced bias by increasing the number of false alarms and decreasing the number of misses. Results suggest that the perceived phenotypic racial stereotypicality of Black targets can increase the accessibility of stereotypes linking Blacks with danger, which intensifies implicit racial bias. Further, we provide the first empirical evidence that stereotypicality biases operate at implicit levels among Blacks when evaluating ingroup members. Implications for stereotypicality research and policing are discussed.

## Presentation K5

**Title: Tolerance by surprise: Evidence for a generalized reduction of prejudice and increased egalitarianism through multiple categorization**

**Authors: M. Vasiljevic & R. Crisp**

Prejudice and discrimination against specific groups decreases when people are encouraged to think about target groups in terms of multiple social categories (Hall & Crisp, 2005). However, can the effects of multiple categorization generalize and promote tolerance towards a range of groups? The current research tests a new way of promoting generalized tolerance by encouraging people to generate surprising, unfamiliar pairings of social categories. In a series of laboratory experiments, participants either generated surprising pairings of social categories (experimental condition), or alternatively they generated unsurprising pairings of social categories (control condition). The experiments provide consistent evidence for a generalized reduction of prejudice through multiple categorization. Thinking about surprising social category pairings led to a reduction of prejudice towards a multitude of outgroups (elderly, disabled, asylum seekers, HIV patients, gay men) and fostered tolerance and egalitarian beliefs. Furthermore, in line with Crisp and Turner's (2011) model of cultural diversity, the manipulation reduced categorical thinking and enhanced various facets of cognitive flexibility. These effects persisted outside the laboratory in a context marked by a history of violent ethnic conflicts. Remarkably, we found evidence in the field that our manipulation can also lead to increased trust and reconciliatory tendencies, in addition to reducing prejudice

towards a multitude of ethnic groups. We discuss the implications of these findings for intervention strategies focused on increasing egalitarianism between groups.

## Keynote Address IV

**Title: Power, cognition, and action**

**Authors: A. Guinote**

Social power has a fundamental impact on the ways individuals think, feel and act. I will discuss research showing that power affects motivation and cognition in ways that originate situated judgment and behaviour, and greater cross-situational variability. According to the Situated Focus Theory of Power (Guinote, 2007, 2010) poweholders have less constraints, so they rely on default processes, and allocate attention more narrowly in line with their motivations or salient aspects of the environment. In contrast, powerless individuals attend to multiple cues, and respond in less situation specific ways. I will discuss effects of power on selective attention and construct accessibility, and demonstrate the situatedness of powerholders' judgments and behaviour across various domains, such as attitudes and social perception. In particular, I will examine the question of whether power magnifies the expression of dispositions, and how person driven and situation driven influences on judgment and behavior can be reconciled. These studies show that power promotes behavior in line with accessible constructs regardless of whether these constructs are chronically or temporarily accessible.

## Session L: Emotions I

### Presentation L1

**Title: The role of stereotype associations in recognizing emotional faces**

**Authors: G. Bijlstra, R. W. Holland, R. Dotsch, & D. H. J. Wigboldus**

Recently we have provided first evidence that stereotype associations influence categorization of emotions. For example, angry Moroccan Dutch faces were more quickly recognized as angry than angry White Dutch faces, supposedly because of the stronger association between Moroccans and anger than Dutch people and anger (Bijlstra, Holland, & Wigboldus, 2010). Although our previous results are fully in line with common stereotypical views on Moroccan and White Dutch people, we did not show direct evidence for the relation between stereotype associations and emotion recognition. The goal of the present study was to illustrate that perceivers' stereotype associations indeed underlie categorization speed of emotional expressions. Furthermore, we tested the alternative explanation that structural



facial feature differences between ethnicities caused previous found stereotype effects in emotion categorization. In order to test this, we analyzed objective emotional intensity scores calculated by a computer algorithm designed to identify emotional expressions and to quantify its emotional intensity (FaceReader; Den Uyl & van Kuilenberg, 2005). Analyses on the data showed that, irrespective of group membership, increasing levels of emotional intensity facilitate recognition of emotional faces. Next, we asked participants to complete a sad - angry emotion categorization task and subsequently we asked participants to perform two separate implicit association tests to assess their implicit *general affective* associations and their implicit *stereotypical discrete emotion* associations with White versus Moroccan Dutch people. Previously found emotion categorization stereotype effects were replicated, demonstrating faster recognition of angry Moroccan Dutch than angry White Dutch faces, and slower recognition of sad Moroccan Dutch than sad White Dutch faces. Most importantly, we provide evidence that observers' associations between discrete emotional expressions and social categories influences emotion recognition processes. Participants' individual associational strength between social categories and discrete emotional expressions predicted whether or not they showed stereotype effects in emotion recognition.

## Presentation L2

**Title: Content vs. colour: How do they interact in image's emotional impact?**

**Authors: A. Kuzinas**

Both colour and content can have an effect on viewers' emotions. However, most of the previous research concentrated on studying either content or some other single image element (colour, size, shape, etc.). Thus, there is little data on how different aspects of image interact with each other. A good explanation is provided by the bio-informational theory of emotions (Lang, 1994; Bradley, Codispoti, Cuthbert, Lang, 2001). According to it, survival is the most important goal for any organism. That is why greater survival value of the visual stimulus leads to stronger activation of either approach or avoidance systems. Any image is composed from many attributes (e.g. colour), which bring information, and a single attribute is enough (if it is sufficiently significant) for a reaction to appear. That is why it is hypothesized that the picture, whose content and image elements have the same effect, should arouse more.

In order to test this hypothesis a pilot study was conducted in which a single attribute – colour of the stimulus was manipulated and the effects on viewers' subjective emotional reactions were measured. 45 photos (neutral, colour-content congruent and incongruent) were presented to 36 participants, whose reactions were measured with a help of SAM. The results revealed that there was an

interaction between colour and content, but with some exceptions, and implications of them will be discussed.

### Presentation L3

**Title: Nostalgia as a meaning-regulation strategy against boredom**

**Authors: W. A. P. Van Tilburg, E. R. Igou, & C. Sedikides**

Boredom is experienced by virtually everyone at one point or another. The literature suggests that boredom raises people's uncertainty about the meaningfulness of their behaviors (Barbalet, 1999). Consistently, we posit that bored people are motivated to re-affirm a sense of meaningfulness. Based on recent research findings that nostalgic experiences are important sources of meaningfulness (Sedikides, Wildschut, Arndt, & Routledge, 2008), we were particularly interested in the relationship between boredom and nostalgia. Specifically, we tested the hypothesis that state boredom and individual proclivity to experience boredom are linked with an increase in level of nostalgia. Six experiments demonstrate the crucial role of people's need to feel meaningful in retrieving nostalgic memories when bored. Throughout these studies, we show that boredom promotes meaning-regulation and nostalgia, and nostalgia subsequently helps people to re-attain a sense of meaningfulness. Our studies provide evidence for both the causal relations between each of the self-regularly steps as well as support for statistical mediation. In sum, our findings indicate that boredom promotes nostalgia as a strategy to re-establish meaningfulness. Our approach has important implications for the effects of boredom and nostalgia, and suggests that even mundane activities can trigger existential self-regulatory mechanisms. Moreover, the state experience of boredom has received very little attention in past research and the research that does exist typically portrays boredom as mainly a source of detrimental psychological and societal consequences. Our research, however, illustrates the value of boredom as a motivator that helps people in maintaining a sense of purpose and meaning, and nostalgia can play a central role in this self-regulatory process.

### Presentation L4

**Title: Affective congruency effect on likelihood of emotional events**

**Authors: I. Dias, T. Garcia Marques, & M. Prada**

This paper focuses the congruence effect on likelihood estimations of affective events. The congruence first shown to be present in the affective valence dimension was subsequently shown to generalize to the specific emotion level. In this study we show that the effect may be verified at other levels, namely those defined by appraisal dimensions of emotions such as certainty and control. Anger (associated with certainty/human control) or fear (associated with uncertainty/situational control) were induced in participants that subsequently evaluated the likelihood of events associated with four different emotions: anger

(previously induced), disgust (not induced but sharing same dimensions as anger) and fear (previously induced) or sadness (not induced but sharing the same dimensions as fear). Results of this study suggest that the congruence effect generalize to these appraisal dimensions, since not only we replicated the effect associated with specific emotions (anger facilitates anger estimations and fear, fear estimations) but found the same effect regarding those emotions that share the same dimensions (anger facilitated responses to disgust and fear to sadness). Results are discussed as regards to their impact in the understanding of the mechanism underlying the affective congruence effect on likelihood estimations.

## Presentation L5

**Title: Choose a juice! The effect of choice options and intention on aggression in a modified hot-sauce paradigm**

**Authors: S. Beier & F. Kutzner**

Laboratory aggression research suffers from flaws like the unavailability of non-aggressive choice options and ignorance of subjects' intentions. The present research analyzed the effect of choice options and intentions in a modified version of the hot-sauce paradigm. In the critical extension, subjects chose between three different juices (pleasant, neutral or hot). In a first study, subjects chose one of the three juices to administer to a target person that allegedly had chosen an unpleasant (provocation) or pleasant (no provocation) juice for them. Three conditions in which participants administered only different amounts of either juice served as control conditions. Results replicated earlier findings: More hot juice was administered by provoked subjects,  $t(34)=1.78$ ,  $p<.05$ . However, provoked participants also administered more of the pleasant and neutral juice,  $t(67)=2.32$ ,  $p<.05$ , and, critically, given choice options, only three of the 18 provoked subjects chose the neutral (1) or hot juice (2) and none of the 20 not provoked ones did,  $\chi^2(2)=3.62$ ,  $p=.16$ . This questions the hot-sauce paradigm's validity. In a follow-up study, intentions regarding juice choices were measured. Subjects chose one of three juices to administer to an unpunctual, rude (provocation) or a punctual target person (no provocation). The results indicated that when an aggressive intention was present, subjects chose the hot juice. But the frequency of aggressive intention was very low (3 out of 34 subjects) due to an ineffective provocation. Five subjects chose the hot juice without an aggressive intention. They wanted to share the interesting taste of the juice with the target. A future study with slight procedural changes to establish an effective provocation and thus a higher frequency of aggressive intentions and a lesser frequency of hot juice choices for other reasons will also be presented. The present results highlight the importance of controlling for the subjects' intentions while measuring aggression.

## Presentation L6

**Title: Self-compassion mediates the relations between anxiety/depression and subjective happiness**

**Authors: T. D. Ritchie**

Results reported by Ritchie, Sedikides, Wildschut, Arndt, and Gidron (2010) suggest that self-concept clarity mediates the relation between different types of stressful life events and subjective well-being. The present research builds upon their findings in several ways. Firstly, symptoms of anxiety and depression were examined as predictors of lowered subjective well-being, extending beyond everyday stress to clinically relevant symptoms of distress. Secondly, instead of global appraisals of life satisfaction as an outcome measure (as in all three of Ritchie et al.'s Studies), the present research assessed subjective happiness. Thirdly, in addition to replicating the indirect effect of distress on happiness through self-concept clarity, self-compassion sub-scales were hypothesized as mediators. The present research examined self-kindness (i.e., tolerate self's flaws) and mindfulness (i.e., maintain a balanced view of the self under stress). Each was hypothesized to correlate negatively with anxiety and depression and to correlate positively with happiness. Importantly, each was also hypothesized to mediate the relation between distress and happiness. Participants ( $N = 46$ ) included undergraduate students who each rated items that assessed symptoms of anxiety and depression, self-concept clarity, self-compassion sub-scales, and subjective happiness. Results suggest that self-concept clarity fully mediated the relation between anxiety and happiness with a significant indirect effect (-.23). Only one sub-scale of self-compassion, self-kindness, mediated the relation between anxiety and happiness with a significant indirect effect (-.20). Further, self-concept clarity fully mediated the relation between depression and happiness with a significant indirect effect (-.17). Self-kindness mediated the relation between depression and happiness with a significant indirect effect (-.12). The data suggest that self-concept confusion is a culprit in coping failure, and also that when self-threatening information poses a coping challenge, being kind rather than unkind towards one's self could help preserve well-being.

## Session M: Ideologies & Power

### Presentation M1

**Title: Authority defied: Regulatory control in the face of authority**

**Authors: T. G. E. Damen, M. L. Van Leeuwen, R. B. Van Baaren, A. Dijksterhuis**

Though authority is viewed as a general principle of influence, there are several individual differences in how people are influenced by and experience authority. As some individuals may find it more difficult to defy authority figures than others, regulatory control could be one domain in which individual differences may prove important. In two studies, we investigated whether differences in Need For Closure (NFC), a trait characterized by needs for which authority figures could provide, would moderate the availability of regulatory resources when participants were required to deny (Study 1), or were preparing to deny (Study 2) a request from a high or low authority figure. Our results showed not only that denying a request from a high authority figure was more depleting for participants higher in NFC compared to individuals lower in NFC, but also that when preparing to deny a high authority's request, individuals higher in NFC had increased resources compared to individuals lower in NFC. No effects were found in the low authority condition. These results suggest that in our normal interactions with authority, individual characteristics interact with situational forces, and influence regulatory control.

## Presentation M2

**Title: Group identification and system justification**

**Authors: K. Jaśko**

System justification theory states that there is a psychological motive to defend and justify existing social, political and economical arrangements (Jost, Banaji & Nosek, 2004). Since among members of low-status groups an acceptance of intergroup relations often goes contrary to their group interests it needs a special theoretical explanation (Jost & Burgess, 2000). Present studies tested the hypothesis that it is the identification with higher-order category that can in part account for that system-level phenomenon. In the first study, a role of group identification for the justification of political system was tested. Identification with the ruling party was related to higher level of perceived legitimacy of the system, while identification with the oppositional parties was related negatively to it. National identity was related positively to the perceived legitimacy of the political system. In the second study, the relations between different levels of group identification and system legitimacy were tested in the context of European Union system. In this case, Polish national identity was negatively related to the justification of decision making process, while identification with the EU was positively related to it. In the next study identification with own group and higher-order category was experimentally manipulated. For half of the participants national identity was made salient, for the other - local identity. Then all participants read the text describing the system of financial distribution among different regions in Poland. Participants in the "local identity" group perceived the distribution system as more justified when their city got more money than when it got less. Participants in the "national identity" condition didn't differ in their perception of justice of both systems and evaluated it

generally more positively. In the last study similar pattern was obtained in the different, non-political context. Generally, stronger identification with low-status group was related to lower legitimacy of the social system. Additionally, identification with higher order group was a significant predictor of the system justification in both groups.

### **Presentation M3**

**Title: Motivation to lead: Does gender matter?**

**Authors: M. Kinahan, J. Bosak, P. Flood, A. H. Eagly**

Motivation to lead (MTL; Chan & Drasgow, 2001) is a recently emerged construct which affects leaders' and future leaders' decisions to assume the roles and responsibilities of leadership. Specifically, the present research aims to investigate whether (1) gender differences exist in general MTL (2) whether men and women differ in their goal endorsements (3) and whether leadership will be perceived as less likely to fulfil communal goals (e.g. working with or helping other people). Therefore we adopt the role congruity theory perspective (Eagly & Karau, 2002) which suggests that broader gender roles in society influence goals of individuals in society (Diekmann & Eagly, 2008) and that specific social roles (e.g. occupational roles like leadership) form an opportunity structure that individuals navigate as they pursue their goals (Diekmann et al, 2010). We expect to find that women and men shall have different life goals (agentic vs. communal) with women having a higher level of communal goals than men. We also expect to find that women perceive leadership as not fulfilling these communal goals resulting in lower levels of general motivation to lead. It is the hope of this research that exploring the possible gender differences of leadership goal endorsements and general motivation to lead might allow identification of an unexplained source of female leadership underrepresentation.

### **Presentation M4**

**Title: Religiosity as system justifying ground for sexism**

**Authors: M. Mikolajczak & J. Pietrzak**

Glick and Fiske (1996) introduced ambivalent sexism, perceiving women as possessing both positive (warm, caring) and negative (emotional, unreliable) attributes: an attitude that simultaneously justifies and propagates inequalities between men and women.

These beliefs about the essential differences between men and women, making them more adequate to fill different roles in society, are based in values that promote and perpetuate gender inequality and are influenced by cultural factors,

such as religion (Schwartz & Huisman, 1995). The Church is one of the few institutions that are granted any legitimacy in modern Polish society. It is therefore a key shaper of values and attitudes. The Catholic Church nowadays clearly dismisses hostile sexist attitudes, while reinforcing and rewarding the image of a woman as at-home mother, sacrificing herself for others, faithful, pure. The official doctrine of the Church propagates the idea of distinct traits and therefore roles associated with men vs. women. In a Spanish sample, higher levels of religiosity have been linked with higher levels of ambivalent sexism (Glick, Lameiras, & Castro, 2002). Two studies assessed the link between Catholic religiosity and ambivalent sexism. Study 1 aimed to test whether reminding people of their connections to the Catholic Church would lead to greater levels of sexism. Religious individuals became more sexist when their practice was made salient to them. Results are discussed within the system-justification framework (Jost & Kay, 2005): The Catholic Church can be considered as 'the system' that Poles believe in and which they would most likely defend from potential threats. One of the grounds for this system is absolute hierarchy with relations between the sexes given. Study 2 verified this hypothesis by investigating whether presenting symbolic threats to the Church would lead a tendency towards greater system justification - reflected in higher levels of ambivalent sexism.

## Presentation M5

**Title: Close enough! Acculturation strategies moderate dehumanization**

**Authors: M. Miranda, M. Gouveia-Pereira, & J. Vaes**

Consistent evidence has shown that people dehumanize independently from (national) groups' status (Leyens et al., 2001). Still, recent findings have emerged showing that low-status groups do not dehumanize high-status outgroups (Miranda et al., 2010).

Ingroup Identification is a powerful determinant of the correlates of intergroup differentiation (Tajfel & Turner, 1979) and has been shown to moderate dehumanization (Paladino et al., 2004). The same reasoning applied to the identification with the outgroup was suggested to work as a limit to dehumanization (Leyens, 2009). If people indeed belong or want to belong to the outgroup, there should be no motivation to differentiate both groups on the human dimension. This process is especially relevant in the context of low-status group members who are managing their identity within a different host culture. We suggest that the different strategies of acculturation among low-status groups could explain different patterns of dehumanization among low-status groups. In a first study, we measure the acculturation strategies, operationalized through an identification conceptualization (Snauwaert et al., 2003), that a low-status group (Gypsies) developed towards the ingroup and the high-status Portuguese outgroup. Results show a positive correlation between acculturation towards the



ingroup and the dehumanization process, replicating evidence that identification with the ingroup is a necessary variable for dehumanization. As predicted, negative correlation between acculturation with the dominant group and the dehumanization effect also occurred, showing that low-status group members only dehumanize the high-status outgroup when they do not want to belong to, nor identify with it. A second study aimed at extending these findings to a broader conceptualization of acculturation strategies (Ryder et al., 2000), within a different ingroup context. Results again confirmed the absence of dehumanization of the high-status Portuguese outgroup by Brazilian immigrants group and that ingroup and outgroup humanization aren't independent from acculturation towards ingroup and outgroup.

## Presentation M6

**Title: How power influences moral cognition: Dual processes and individual differences**

**Authors: J. Sweetman & A. Guinote**

Powerful individuals make moral decisions that affect the lives of thousands, sometimes millions, of people: from deciding on what work expenses to claim for to invading another country. Therefore, understanding the influence of power on moral judgements is of the utmost importance. Recent work has suggested that those with power tend to be more strict in judging others' moral transgressions (Lammers et al., 2010). This work has suggested that feelings of entitlement (to judge others) that come with power may explain why the powerful are more strict in their moral judgements. Although this explanation is theoretically plausible, it is yet to be empirically tested. In addition, recent work on moral cognition has suggested that moral judgement may depend upon both automatic and controlled processes (Cushman et al., 2010). This study has two key aims to help elucidate the relationship between power and moral cognition, 1) to examine potential mediators (e.g., entitlement) of the effects of power on moral judgement, and 2) to examine the role of controlled and automatic processes. Study 1 replicates previous findings showing that the powerful are more strict in their moral judgements than the powerless. Importantly, this study goes beyond past research (e.g., Lammers et al., 2010) by demonstrating these effects in moral dilemmas concerning physical harm (vs rule-breaking). Study 2 demonstrates that the effects of power depend on the type of processing: when processing was more automatic ("intuitive") vs. controlled ("rational") the effects of power no longer hold. In other words, the powerful cease being more strict in their moral judgements than the powerless when they are encouraged to make quick, intuitive, non-deliberative judgements. In addition, we find no evidence for the mediating role of feelings of entitlement, but do find some support for the mediating role of emotional (disgust) tendencies. The results are discussed in relation to multi-system models of moral cognition.

## Session N: Consumer

### Presentation N1

**Title: Communality sells: The impact of perceivers sexism on the evaluation of women's portrayals in advertisements**

**Authors: M. Infanger, J. Bosak, & S. Sczesny**

Portrayals of women in advertisements have a significant impact on the maintenance of gender stereotypes in society. Therefore the present research investigates the effectiveness of communal and agentic female characters in advertisements as well as the question how evaluations of such characters are influenced by perceivers' sexist attitudes towards women. Results show that communal female advertising characters are evaluated more favorably than agentic ones, and that these evaluations predict advertising effectiveness. Benevolent sexism predicts more positive evaluations of communal female advertising characters (Study 1 & 2). Moreover, hostile sexism predicts less positive evaluations of agentic female advertising characters when it is assessed under time pressure (Study 2). Implications of these findings for the perpetuation of gender stereotypes in advertisements and in society are discussed.

### Presentation N2

**Title: I wish my belongings end up in good hands: The interacting role of ownership and purchaser positivity on objects valuations**

**Authors: M. Lannoy, S. Demoulin, & O. Corneille**

Ownership has been shown to increase objects valuation. Yet, no research has examined the interactive role of both ownership and purchasers' positivity on selling prices. In a first experiment, using a think-aloud protocol technique, we found that sellers who had to sell their own object were significantly more concerned about potential purchasers than people who had to sell an object which was not their property. Importantly, a second experiment showed that people with high perceived ownership significantly increased the selling prices of their belongings for disliked purchaser. This suggests that owners are inclined to ask for more money in order to alleviate the psychological cost of affectively inconsistent deals. These findings stress the importance of taking interaction partners into consideration when examining ownership and endowment effects on price determination. As a matter of fact, an ownership effect was found toward dislikeable but not likeable purchasers, which seems at odd with pure loss aversion accounts of the endowment effect.

## Presentation N3

**Title: Red reduces consumption behavior**

**Authors: L. Reutner, O. Genshow, & M. Wänke**

Two studies investigated the effect of the color red on consumption behavior. We propose that the color red functions as a cue for control in a consumption context. In line with previous research (Mehta & Zhu, 2009) we argue that because the color red is associated with signaling danger and the need for vigilance (e.g., red traffic lights, stop-signs, red alert) red induces a more detail oriented processing style and avoidance motivation. Consequently, this avoidance motivation should lead to a reduced consumption of food and beverages. Two studies were conducted in order to test this hypothesis. In accordance with our reasoning, individuals drank less in the presence of a red color cue than in the presence of a blue color cue (Study 1), and ate less snack food in the presence of a red color cue than in the presence of a blue or white color cue (Study 2). Moreover, red was shown to reduce consumption even when consumption behavior was casual and attention was focused on another task (Study 2). Because tastiness ratings of the beverages and the snack food remained unaffected by the color condition we argue that the color red functions as a direct stop signal without affecting the actual consumption experience. Implications for various domains concerned with consumption behavior (e.g., dieting or marketing) are discussed. Finally, in light of the ubiquity of color, we consider further exploring the influence of color on everyday behavior in general an interesting and important research domain.

## Presentation N4

**Title: Prior Intentions to switch mediate the link between attitudes and spontaneous switching behavior for own-provider attitudes, but not for other-provider attitudes**

**Authors: K. Thorsteinsen & F. Siebler**

The theory of planned behavior (TBP: Ajzen, 1991) is extensively used to explain consumer behavior. According to the TBP, the relationship between attitudes and behavior is mediated by behavioral intentions. In the present study of consumer attitudes towards providers in the telecommunication sector ( $N = 150$ ), measures of attitudes towards the own and other providers were used as predictors of spontaneous switching in response to a challenge during the study. In line with the TBP, prior intention to switch one's provider during the next two months was hypothesized to mediate the link between attitude and spontaneous switching during the study. As expected, attitudes towards the own provider were related negatively, but attitudes towards other providers were related positively to switching in response to the challenge. Using mediation analysis (Baron & Kenny, 1986) we found that the effect of own-provider-attitude (but not of other-provider-attitude) on switching during the study was reduced, once the mediator "prior intention" was entered into the equation. That is, the link between own-provider attitudes and spontaneous switching was mediated by prior intentions to switch one's provider during the next months. However, intentions to switch one's provider did not mediate the link between other-provider attitudes and spontaneous switching. These results show a dissociation between two related attitudes (own/other provider). Implications for consumer research will be discussed.

## Presentation N5

**Title: Think money – think global**

**Authors: M. Wänke, J. Hansen, & F. Kutzner**

In our society money enables people to fulfil many of their needs and to help them master many existential threats. As such reminders of money should instigate a feeling of control and safety. In turn, people should adopt a more holistic and global as compared to analytic and local processing style. Three experiments show that indeed priming the concept of money leads to more abstract behavioural identifications, broader categories, and increases response latencies for identifying the detailed stimuli in the Navon task. Furthermore, three additional studies apply this effect to different judgments in the consumer domain. Borrowing material from Trope & Liberman (2000; Study 3) we found that priming money also led to

neglecting feasibility compared to desirability features when judging a consumer product. Money priming also caused consumers to put increased weight on broad, de-contextualized information (statistical averages) at the expense of information that is more closely tied to a single experiences within a specific context. Finally, we found that money primes increased the influence of the brand name in product evaluations compared to a control group.

## Presentation N6

**Title: Attitudes to debt and monetary behavior in Lithuanian sample**

**Authors: S. Žukauskas**

Attitudes to debt are considered to be one of the most important factors in financial decision making and is closely related to indebtedness problems. Many researchers have found that attitudes to debt are closely related to the amount of debt acquired. Research on student debt and student credits show that attitudes can shift to more positive side when students are taking out student loans, resulting in greater tolerance to debt (e.g. Davies & Lea, 1995; Haultain et al., 2010). Recent advances in research on attitudes to debt show that attitudes to debt are not unidimensional construct. Scott and Lewis (2001), Haultain et al. (2010) found two factors in attitudes to debt: pro- and anti- debt (or fear of debt and debt utility). In present study we used attitudes to debt scale (Davies & Lea, 1995; Haultain et al., 2010) to examine attitudes to debt among students in Lithuania. Exploratory factor analysis of the scale show that attitudes to debt are not unidimensional construct. Six factors were extracted from the questionnaire and the results were hardly interpretable. After removing questionnaire items that had weak factor loadings, two factor solution came up (8 items total, 4 items in each scale). The solution closely resembles results that were reported in Haultain et al. (2010) study, with two factors emerging: fear of debt ( $\alpha=0,705$ ) and debt utility ( $\alpha=0,615$ ). Based on the results of our first study we designed Attitudes to debt scale to measure attitudes to debt among adults in Lithuania. Questions about saving and borrowing habits were used to measure participants' financial behavior (for example number of credit cards, usage of various types of credit). Exploratory and confirmatory factor analysis was used to check the validity of Attitudes to debt scale. Attitudes to debt were explored in different age, sex, and financial behavior groups.

## Session O: Social Neuroscience

### Presentation O1

**Title: When do calibration-effects disappear? Judging instead of observing**

**Authors: V. Ostheimer, C. Unkelbach, & D. Memmert**

Calibration is a central process in human judgements as people have to judge stimuli in a series. If people have to render categorical judgements in a sequence (e.g. judge people as intelligent or not), they have to calibrate an internal scale: calibration. One important part of calibration is that people avoid extreme judgements in the beginning of the judgemental process. Therefore, they make “incorrect” judgements in the beginning: a good student is not judged as good as she deserves and a bad is not judged as bad as she deserves in the beginning. A prominent question is therefore how to avoid incorrect judgements in the beginning. We conducted three experiments to research if this calibration-effect can disappear. Across all experiments participants had to judge products as cheap, middle-priced or expensive. Experiment 1 shows the typical calibration-effect: They judged factual cheap products as higher priced and factual expensive products as lower priced as they did later in the sequence. Experiment 2 still shows calibration effects even though participants watched the exact sequence of products before they judged it. The third experiment tries to diminish calibration-effects by judging a sequence twice. Experiment 3 shows the disappearing of the calibration-effect if participants watched the sequence twice. Therefore, the judgements did not differ anymore from position to position. The results indicate that watching or observing a sequence is not enough to be calibrated. Judgement is necessary for the avoidance of this calibration-effect. Therefore, if judges want to make “correct” judgements they have to judge a sequence twice.

### Presentation O2

**Title: Social scripts and their predictive function**

**Authors: K. Baetens, L. Van den Cruyssen, & F. Van Overwalle**

Social scripts have been defined as stereotyped action plans (Reader, 1987) which entail information about which events are likely to occur in the same context and in which order. Classic research has provided evidence for the involvement of such scripts in social cognition by showing A) false memory for unrepresented script events and B) the tendency of people to reproduce script events in the right order even if they were presented in a wrong order (Bower, Black & Turner, 1979). The function of these scripts is supposedly to make the social world predictable. We investigated this using a lexical decision paradigm on Dutch verbs describing

concrete behaviors. Primes were presented for 500ms, after which the target appeared. Prime and target weakly semantically associated. Participants had to decide as quickly as possible whether both words were real words or at least one of them was a pseudo-word. Only verb pairs were used that describe behaviours which are normally executed in a fixed order (i.e., “grating, peeling”). Taking only correct responses into account, lexical decisions were faster if the verbs were presented in their usual order of execution than the other way round. Similar effects were obtained using cartoons depicting script events. We will explore ERP responses to both chronologic and thematic errors for both verb pairs and script pictures. Prior research using full sentences found distinct ERP components in response to both types of errors.

### Presentation O3

**Title: Neuropsychological correlates of selective exposure to information after decisions**

**Authors: C. Vogrincic, P. Fischer, E. Jonas, J. Klackl, U. Athenstaedt, & A. Ischebeck**

When people make decisions, they often prefer to receive information that supports rather than conflicts with their decision or standpoint. This phenomenon is known as selective exposure to information and has been shown to severely decrease decision quality in a variety of contexts. Mainly the following two explanations can be found in literature: On the one hand, the theory of dissonance posits that after having made a decision dissonance arouses because deciding on something necessarily includes the rejection of another alternative. Dissonance occurs due to the fact that the positive aspects of the rejected alternative and the negative aspects of the selected alternative become salient. People prefer decision-consistent information to reduce this highly aversive motivational state of dissonance. On the other hand more cognitive approaches suggest that one cannot evaluate information independently from one’s own standpoint and thus systematically tests decision-inconsistent information more critically and elaborative than decision-consistent information. As a result, inconsistent information is perceived to be of lower quality, less reliable and valid. The selective exposure phenomenon is well investigated in a variety of contexts, but up to date there are only few studies investigating the neurophysiological correlates of dissonance phenomena. In our research, a series of functional magnetic resonance imaging studies is designed to close this gap and to find out, whether standpoint-consistent and inconsistent pieces of information arouse different neuropsychological patterns of activation and thus get more information about the psychological basis of the selective exposure phenomenon. Results from our first study indicate an increased activation within the ventral anterior cingulate cortex (vACC) during the processing of inconsistent information – an area which is known to be predominantly involved in processing emotional and motivational relevant

information. These first results support the cognitive dissonance view rather than cognitive explanations of selective exposure to information.

#### **Presentation O4**

**Title: Dissociation in the social brain: The role of the TPJ and mPFC in goal and trait inferences**

**Authors: N. Ma, N. Van Hoeck, K. Baetens, L. Van der Cruyssen, & F. Van Overwalle**

In his meta-analysis, Van Overwalle (2009) suggested that the Temporo-Parietal Junction (TPJ) is involved in inferring immediate goals and intentions from behaviors, while the medial PreFrontal Cortex (mPFC) integrates social information at a more abstract level, such as traits. However, to date, this division of inference processes in the social brain has not been investigated in a single study. We explored the differential role of TPJ and mPFC in goal and trait inferences respectively, using fMRI. Participants were given verbal descriptions of agents, together with a photo of the agent. In one half of the trials (Behavior Condition), the agent was described as engaging in a simple goal-directed behavior, whereas in the other half this description was absent. Orthogonal to this, in another half of the trials (Trait Condition), the participants had to answer a question about a trait of the agent, whereas in the other half the question was about the agent's physical appearance. The results revealed that the dorsal mPFC was strongly recruited when participants inferred the agent's trait, irrespective of the presence of a behavioral description. In contrast, the TPJ, posterior Superior Temporal Sulcus (pSTS), anterior IntraParietal Sulcus and PreMotor Cortex were activated when behavioral information was presented, irrespective of whether a trait question was asked or not. In addition, the posterior medial Frontal Cortex and left PFC typically associated with conflict monitoring were also recruited under both trait and behavior processing. This may be due to the multiple types of information between which the participants had to select, in order to provide an answer. These findings confirm that in a social context, the TPJ (and pSTS) and mirror areas are activated for understanding goal-directed behaviors, while the mPFC is involved in processing traits.

#### **Presentation O5**

**Title: Action control: Brain, mindset and executive functioning**

**Authors: H. A. H. Ruigendijk, S. L. Koole, & H. S. Scholte**

According to action control theory (Kuhl, 1994), people vary in the ability to regulate their actions under stressful conditions. Two facets of action control have hitherto received most attention: decisiveness and disengagement. Individual



differences in decisiveness and disengagement predict a wide variety of behaviors in laboratory and field settings (Koole & Kuhl, 2008; Kuhl & Beckmann, 1994). With this presentation we first attend to the neural architecture of decisiveness and disengagement (study 1) and subsequently we show how different induced mindsets and differences in decisiveness influence cognitive control (studies 2 & 3). With study 1 we investigated whether individual differences in decisiveness and disengagement are reflected in brain structure, using magnetic resonance imaging and diffusion tensor imaging. Furthermore, we investigated whether individual differences in decisiveness and disengagement have a separable neural architecture. Congruent with existing literature about neural correlates of decisiveness and stress, individual differences in decisiveness correlated with differences in the striatum and with differences in white matter tracts deriving from the hippocampus and the corpus callosum. Congruent with recent literature about emotion regulation, differences in disengagement correlated with differences in the cerebellum and left temporal gyrus. We conclude that there are neural correlates of individual differences in decisiveness and disengagement that are separable. With study 2 & 3 we show that different mindsets influence the ability to employ cognitive control. Which mindset enables the participants to employ optimal cognitive control, depends on whether participants have a self-regulation style associated with decisiveness or indecisiveness. A relaxed or accepting mindset can help people with indecisive self-regulation styles. Conversely, a focused mindset may be more beneficial to people with decisive self-regulation styles.

## Keynote Address V

**Title: Emotional validation of thoughts: Anger can increase or decrease information processing and thought usage**

**Authors: P. Briñol**

Anger is a multi-faceted emotional state that is associated with feeling unpleasant as well as a sense of confidence. Previous research has shown that anger can influence judgments by affecting the amount of thinking: either increasing or decreasing it. In a first set of studies, we specify the conditions in which each of these effects is more likely to occur. We argue that a given emotion can have opposite effects on information processing depending on whether the emotion is appraised in a cognitive or affective manner. It was predicted and found that when participants were placed in a cognitive mindset, the relative confidence that accompanied anger would decrease thinking. In contrast, when participants were placed in an affective mindset, it was expected and found that the unpleasantness associated with anger increased thinking. This first line of research focuses on impact of anger on primary or first-order cognition (when anger precedes thinking). However, following a primary thought, people can also generate other thoughts, which occur at a second, meta-cognitive level. In a second line of research, we

examined the impact of anger on secondary cognition. Across studies, we show that when anger follows thought generation, thoughts can be used more or less depending on which aspect of anger is dominant. People will use their thoughts more when confidence dominates (cognitive mindset) but less when unpleasantness dominates (affective mindset) compared to when not angry. Taken together, these two lines of research reveal that anger can lead to opposite results in judgment depending not only on what aspect is dominant (confidence of unpleasantness) but also as a function of when it is induced (before or after thinking).

## Session P: Emotions II

### Presentation P1

**Title: The Salience of Emotion: Evidence from a Study of Task Switching Between Different Facial Attributes**

**Authors: A. Gul & G. W. Humphreys**

The perception of emotion and gender was investigated in two experiments (salient emotion experiment 1; non salient emotion experiment 2) where participants were required to switch between decisions to two aspects of faces – emotion and gender. British White, South Asians, and British South Asian participants made judgments of emotion (happy/neutral) or gender (male/female) to White and Asian faces. Consistent with the effects of emotional saliency, emotion recognition was easier than gender recognition in Experiment 1 but not Experiment 2. In both experiments switching from emotion to gender yielded a larger switching cost for gender which held across the experiments - consistent with emotion having a higher general saliency - and the increased switch cost for gender was particularly large for the British White participants. We attribute this asymmetric switch cost to differential cultural emphasis on emotion, which may make disengagement from emotion particularly difficult for the British White participants. We discuss the implications of the results for understanding the processing of facial information across different cultures.

### Presentation P2

**Title: Moral condemnation and the search for mitigation**

**Authors: N. L. Powell, K. Quinn, S. Beck, & R. Giner-Sorolla**

Participants presented with a scenario involving harm judge the scenario differently according to whether the harm was intended and whether the harm was active or passive (Spranca et al., 1991; Cushman, 2006,2008). When people have information

about intentionality, belief, and active or passive harm, there is an opportunity to mitigate a judgement of wrongness. In real situations, however, opportunities to morally condemn an action or individual often rely on little knowledge. For the present study we used a moral transgression involving purity (Gutierrez & Giner-Sorolla, 2007) and a moral transgression involving harm. Participants rated the wrongness of each transgression, their judgement certainty and their emotional reaction. Mean ratings of wrongness, certainty and emotional reaction did not differ between the two conditions and were nearly at ceiling. Participants were then asked whether they wanted additional information about the scenario they had read. The desire for additional information differed significantly between the two conditions such that participants wanted more information after reading a violation of harm than after reading a violation of purity. In study 2, participants were asked to rate the perceived utility of various types of information after making judgements of wrongness, judgement certainty and emotional reaction. There were no significant differences between the two conditions in terms of perceived information utility, and the mean ratings were near to floor (very useless). In study 3, participants were asked to rate their desire to see additional information that either supported their initial judgement or went against their initial judgement assuming that they would be shown some type of additional information. Participants in the harm condition wanted more judgement-congruent (negative) information and participants in the purity condition wanted more judgement-incongruent (positive) information. Our interpretation of this finding is consistent with approach/avoidance theories of emotion.

### Presentation P3

**Title: Feigned pain is seen as real in the laboratory and on the soccer field**

**Authors: S. W. G. Derbyshire & R. Bushell**

Increasing numbers of people claiming sickness and incapacity benefit has given rise to suspicions of illness deception or malingering. The recognition of malingering, however, relies on inferential methods that are difficult to test in the laboratory or the field. Here we report on two studies to test whether people can ordinarily detect feigned pain under controlled circumstances and whether incidences of reported pain increase when pain report provides an immediate benefit. For the first study, ten actors were recorded while experiencing actual cold pressor pain or when feigning pressor pain. A subsequent audience of 109 observers were unable to recognise genuine pain above chance but recognised feigned pain as genuine pain above chance. These findings support the suggestion that people cannot reliably detect genuine pain or discriminate feigned from genuine pain. For the second study, 30 Euro 2008 soccer matches, 30 Premier League matches and 64 World Cup 2010 matches were reviewed for the timing and severity of injuries. The rules of soccer dictate that play, once halted, cannot

continue if a player is injured. The study was designed to investigate whether players take advantage of this rule by feigning pain and injury to run down the clock and preserve beneficial match positions. The number of injuries were compared between teams that benefited from stopping the game and those that did not benefit. In all competitions, teams that benefited from game stoppages had a significantly higher number of injuries in the last 15 minutes of matches compared with those that did not benefit. These findings support the suggestion that players can and do successfully feign pain and injury to stop the game when it is beneficial. In combination the two studies suggest that, when motivated, people can successfully feign pain symptoms.

#### **Presentation P4**

**Title: When distrust frees your mind – Cognitive effects of trust and distrust on stereotyping**

**Authors: A-C. Posten & T. Mussweiler**

Stereotyping shapes how we see, evaluate and behave towards others. Despite its beneficial effects for the efficiency of social information processing, stereotyping often has detrimental effects on accuracy. As a consequence, identifying factors that reduce stereotyping effects is important. Intuition suggests that the experience of trust may be one such alleviating factor. Taking a closer look at the cognitive underpinnings of trust vs. distrust, however, challenges this intuition. Mindsets of trust versus distrust foster different cognitive processes. Whereas trust leads to the use of routine strategies, distrust fosters the use of non-routine strategies. One influential routine strategy of information processing is similarity focus, which constitutes the default mechanism in comparative thinking. In fact, comparative thinking as one mechanism that influences stereotyping involves the two alternative mechanisms of similarity vs. dissimilarity focus. Dissimilarity focus constitutes the non-routine-strategy in comparative thinking and has been found to reduce stereotyping. This suggests that distrust rather than trust may reduce stereotyping effects. Three experiments tested this possibility.

In a first experiment participants were subliminally primed with trust (vs. distrust) before judging a female (vs. male) IT-training-applicant. Participants with a distrust mindset judged the female target less stereotypically than participants with a trust mindset. A second experiment replicated this finding using a scrambled sentences trust (vs. distrust) manipulation and an over- versus underweight person as judgmental target. The overweight as well as the underweight target were judged to be less stereotypic after the distrust prime. A third study investigated the effect of trust and distrust on the direction of comparative thinking. Consistent with our hypothesis, participants primed with distrust focused more on dissimilarities. These findings suggest that distrust reduces judgmental effects of stereotyping. A

comparative thinking style with a focus on dissimilarities is suggested as an underlying mechanism.

## Session Q: Judgment & Decision Making

### Presentation Q1

**Title: Need for cognitive closure and decision making: language regulatory function**

**Authors: M. Chmiel**

The main objective of this project was to investigate formal characteristics of the need for cognitive closure and regulatory function of language content in judgement and decision making. Specifically I was interested in identifying individual differences in preferences for different categories of language content (1), assessing a possibility to situationally induce the need to avoid cognitive closure with different language content categories (2), analyzing the influence of messages differing in language content on decision making processes (3). Formal characteristics of the processes governing human cognition have been traditionally opposed to content of thoughts, the latter being responsible only for qualitative properties of cognition. This project was aimed at testing whether it is possible to elicit motivation to avoid cognitive closure with different language categories presented independently from the main task. In a series of three studies (N=300) it has been shown that NFCC can be primed with different language categories which are theoretically connected with the structure of epistemic goals regulating NFCC process. In a fourth study (N=150) a Mouselab methodology-based computer task was used to investigate how different language categories modify information acquisition and decision making process. Implications of these findings are discussed with reference to consumer decision making process.

### Presentation Q2

**Title: To read two pages, I need 5 minutes, but give me 5 minutes and I will read four: how to change productivity estimates by inverting the question**

**Authors: T. Halkjelsvik, M. Jørgensen, & K. H. Teigen**

Past research has shown that people underestimate performance time (e.g. work hours) for large tasks, whereas performance time for smaller tasks are often overestimated, suggesting higher productivity estimates for larger than for smaller tasks. By replacing the traditional question about how much *time* a given work will take with a question about how much *work* can be completed within a given amount of time, we also found the opposite pattern. Both trends could reflect a general tendency to underestimate large amounts (of work as well as time) relatively to small ones. This 'magnitude bias' was explored in two studies where students estimated reading tasks, a third where IT-professionals estimated

software projects, and a fourth where participants imagined a familiar walk, divided into time segments or part distances of varying lengths. Results from pilot studies indicate a possible relation between the magnitude bias and anchoring effects.

### Presentation Q3

**Title: Sound sleepers have restless minds: Sleep improves decision-making**

**Authors: M. Strick, S. Rittner, M. Bos, R. Van Baaren, & A. Dijksterhuis**

This experiment investigated whether it helps, as the proverb says, to “sleep on” decisions, and whether reactivating the decision problem during sleep using an odor cue can further boost the benefits of sleep. Participants received the applications of four candidates for a scholarship. The applications were from an actual application procedure, and the ratings of the expert selection committee were used to determine the normative quality of the candidates. Participants evaluated the candidates under five different conditions: an immediate condition, a thinking-awake condition, and three different sleep conditions. Participants in the immediate condition evaluated the candidates immediately after reading the applications. Participants in the thinking-awake condition read the applications in the morning or afternoon, and gave their evaluations in the evening. Participants in the sleep-only condition read the applications in the evening and evaluated the candidates the next morning. The sleep-with-same-odor condition was similar, but during sleep these participants were exposed to an odor cue that was presented earlier while participants read the applications. We expected that this odor cue would re-activate the decision-problem during sleep, leading to improved decision-making the next morning. The sleep-with-different-odor condition was identical, except that during sleep participants were exposed to a different odor than the one present while participants read the applications. The candidate evaluations showed that decisions made in the sleep-only condition were more accurate than decisions made immediately, and than decisions made after a period of thinking awake. Furthermore, decisions made in the sleep-with-same-odor condition were even better than decisions in the sleep-only condition, and than decisions in the sleep-with-different-odor condition. These findings confirm that sleeping benefits decision-making. Furthermore, reactivating the decision-problem during sleep using an odor cue can further boost the benefits of sleep.

### Presentation Q4

**Title: Counterfactual thinking: judgments vs. affective evaluations of outcomes**

**Authors: J. A. Terum & F. Svartdal**

Counterfactual thinking is a form of comparative thinking where actual outcomes are compared to imagined alternatives, and thoughts about “what might have been” have been found to have consequences for people’s affective, judgmental and behavioral reactions to events and outcomes. It follows that people’s reaction to an event depends, at least to some degree, on how people think and reflect around counterfactual alternatives. Previous research on the affective consequences of counterfactual thinking has typically focused on contrast effects, demonstrating that counterfactual alternatives, better or worse, amplify the affective reaction to a given outcome. The focus of the present research was instead on the perceived valence of counterfactuals themselves. Specifically, the aim was to compare the perceived valence of various negative events described either as something that actually happened (factual), or as something that could have happened (counterfactual). Previous research has shown, using a similar procedure, that the consequences of events presented as counterfactual tend to be exaggerated compared to events presented as factual (Teigen, Kanten & Terum, 2011). In accordance with this we reasoned that valence estimates should demonstrate a similar pattern. We report results indicating an opposite effect, i.e., that the hypothetical nature of counterfactuals have an attenuating effect on affective reactions. Our results indicate that presenting negative events as hypothetical possibilities that could have happened (experiment 1) or may happen (experiment 2) renders them less affectively impressive than presenting them as events that actually have happened. Finally we test the hypothesis that the hypothetical nature of counterfactuals differentially affects judgments of affect and evaluations of consequences. We report results indicating that people will tend to exaggerate the potential consequences of events that are presented as counterfactual as opposed to factual, while at the same time find them less affectively impressive.

## Session R: Memory & Attention

### Presentation R1

**Title: Putting some order in person memory: Memory for (serial) order in impression formation**

**Authors: R. S. Costa, L. Garcia-Marques, & J. W. Sherman**

The representation and retrieval of information about persons in memory is crucial to understand impression formation. Research on these underlying memory processes of impression formation is focused exclusively on item information, neglecting order information. We conducted five experiments to address this issue. Study 1 indicates that when forming impressions people are able to represent, retrieve and use order information for order judgments and recall. The following



two studies suggest that order information is not represented via inter-item serial associations formed at encoding. The last two studies were designed to test a model of person memory that conceptualizes the representation of order information based on each item's level of informativeness. Specifically, study 4 suggests that order information representation is less dependent on episodic memory, contrasting with item information. Finally, study 5 supports an indirect mechanism for the representation and use of order in person memory based on the items' perceived informativeness.

## Presentation R2

**Title: A nice kid who yelled at grandma: The ontogeny of the incongruity effect in person memory**

**Authors: S. Hagá, K. Olson, & L. Garcia-Marques**

The finding that social perceivers in the lab, after trying to form an impression about someone, are more likely to recall information that is incongruent, rather than congruent, with the expectancy they had about that person – the incongruity effect – originated the creation of well-specified person memory models. However, little is known about the ontogenesis of the incongruity effect and, therefore, about the ontogenetic plausibility of those person memory models. Based on the assumptions of the Hastie-Srull person memory model that the incongruity effect depends on the more elaborate processing of the expectancy-incongruent items, with high demands on processing capacity, we predicted that the incongruity effect has a rather late ontogenetic emergence. In order to test this hypothesis we investigated 4-, 5-, 7- and 10-year-olds' recall within a person memory paradigm.

We manipulated processing goal (i.e., whether participants were instructed to memorize information or to form an impression about a target-child) and prior expectancy (i.e., whether the target-child was previously described as nice or mean). Then all participants listened to a set of behavioural descriptions that the target had supposedly done. Half of the behaviours were expectancy-congruent and the other half expectancy-incongruent. Finally participants free-recalled the behaviours.

As expected only the 10-year-olds exhibited a better recall for the expectancy-incongruent items under the impression formation goal (i.e., the incongruity effect). Moreover negativity effects were obtained for 7- and 10-year-olds. The results suggest an ontogenetic progression from indiscriminate processing of social information in impression formation settings to the use of certain characteristics (e.g., negativity, incongruity) as diagnostic clues. This study provides important convergent evidence for the validity of the person memory model and opens way for the specification of earlier ontogenetic states of the model. Furthermore the

study speaks for the interest of conducting studies with children to test adult social cognitive models.

### **Presentation R3**

**Title: Automatic attitude activation is modulated by feature-specific attention allocation**

**Authors: T. Everaert, A. Spruyt, J. De Houwer**

In their seminal paper, Fazio, Sanbonmatsu, Powell, and Kardes (1986) argued that the mere presentation of an attitude object is sufficient to activate its associated attitude. Recent studies conducted at our lab suggest, however, that automatic attitude activation is modulated by feature-specific attention allocation (FSAA; Spruyt, De Houwer, & Hermans, 2009). Specifically, Spruyt et al. hypothesized that an attitude is activated automatically only if attention is assigned to the affective stimulus dimension. We further explored this hypothesis in three studies. In the first two studies, we investigated the effects of FSAA on attentional bias to affective stimuli. We used the emotional Stroop task (Study 1) and the dot probe task (Study 2). FSAA was manipulated by randomly intermixing trials in which these tasks were performed with trials in which an affective discrimination task (the affective group) or a non-affective discrimination task (the non-affective group) were performed. Effects of attentional bias for affective stimuli were significant only in the affective group, in which affective stimulus information was selectively attended to. In Study 3, we examined effects of FSAA in the affective priming paradigm using a picture – word pronunciation task. We hypothesized that mere exposure to affective stimuli suffices to induce FSAA to the affective stimulus dimension. We found affective priming effects only when affective priming trials were embedded in a context of other affective priming trials. When affective priming trials were embedded in a context of affectively neutral priming trials, no significant affective priming effects emerged. We conclude that FSAA can also modulate automatic attitude activation as reflected in measures of attentional bias for affective stimuli (Study 1 and Study 2). In addition, our findings show that even subtle procedural manipulations are sufficient to induce selective attention for affective stimulus information and hence, will lead to automatic attitude activation (Study 3).

### **Presentation R4**

**Title: Does agency cueing of geometric shapes affect their attentional cueing effects? Investigating the social component of endogenous attentional orienting**

**Authors: J. Steen, F. Van Overwalle, & M. Brass**

Recent neuroimaging studies have suggested common cognitive processes to be involved in (1) tasks tapping into 'low-level' attentional (re)orienting and (2) tasks requiring social-cognitive skills, based on substantial overlap in neural activation. In addition to this suggestion of common underlying processes, some researchers even theorized these basic spatial-attentional processes to be the building blocks of social cognition, more specifically of 'mind-reading' abilities generally referred to as Theory of Mind. We argue that attentional cueing effects, which are traditionally held to reflect basic spatial-attentional processes, at least partly reflect some degree of social contract implied by the communicative (and hence social) nature of the central cue that predicts where attention should be focused on. Consequently, we posit that making the social-agentive nature of the cues more salient (e.g., making them goal-directed agents) will result in stronger attention effects. To study this, we plan to conduct an adapted version of Posner's endogenous cueing task using a 2 (cue validity) x 2 (high versus low agency) factorial within-subjects design. The agency level of the central cues is primed using animations just before the attention task. Results will be presented and discussed during the conference.

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