ESCON MILANO 2022

EUROPEAN SOCIAL COGNITION NETWORK
ESCON Transfer of Knowledge Conference

Milano, August 29-31 2022

BOOK OF ABSTRACTS

UNIVERSITÀ DEGLI STUDI DI MILANO BICOCCA

BICOCCA DOCTORAL SCHOOL

Associazione Italiana di Psicologia

PROGRAMME OVERVIEW

	DAY1: August 29, 2022	
8:30-9:45	Welcome Reception and Registration	Atrium - Entrance Hall
9:45-10:00	Opening - Plenary Session	Lecture Hall
10:00-11:15	Keynote Talk - Plenary Session	Lecture Hall
	Jan De Houwer	
	Building bridges between impression formation and learning: The related entities of entities principle as a guide for research on feature transformation	
11:15-11:30	Coffee Break	Atrium
11:30-13:00	Talk Sessions	
	Behavior change	Room 6
	Biases in cognition	Room 7
	Memory	Room 8
	Evaluative conditioning	Room 9
13:00-14:30	Lunch	
14:30-16:30	Talk Sessions	
	Economic games and decision-making	Room 6
	Emotions	Room 7
	Impression formation	Room 8
	Information processing	Room 9
16:30-17:00	Coffee Break	Atrium
17:00-19:00	Talk Sessions	
	Stereotypes and prejudice	Room 6
	Judgment	Room 7
	Approach-avoidance	Room 8
	Self-regulation	Room 9
19:00	Explore Milan on your own	
	DAY2: August 30, 2022	
9:00-11:00	Talk Sessions	
	The Self	Room 6
	Face perception	Room 7
	Evaluative conditioning	Room 8
	Social exclusion	Room 9
11:00-11:30	Coffee Break	Atrium
11:30-12:45	Keynote Talk - Plenary Session	Lecture Hall
	Ursula Hess	
	Facial mimicry as a communicative act	
12:45-14:15	Lunch	
14:15-16:15	Talk Sessions	
	Impression formation	Room 6
	Indirect measures	Room 7
	Emotions	Room 8
	Stereotypes and prejudice	Room 9
16:15-16:45	Coffee Break	Atrium
16:45-18:45	Talk Sessions	
	Social judgment	Room 6
	Information processing	Room 7
	Morality	Room 8
	Social inequality	Room 9
18:45	Social event: Aperitivo in Milano	
	DAY3: August 31, 2022	
9:00-11:00	Talk Sessions	
	Stereotypes and prejudice	Room 6
	Language and cognition	Room 7
	Face perception	Room 8
	Political psychology	Room 9
11:00-11:30	Coffee Break	Atrium
11:30-13:00	Talk Sessions	
	Evaluative conditioning	Room 6
	Norms and values	Room 7
	Theoretical advancements	Room 8
	Perception	Room 9
13:00-14:30	Lunch	
14:30-16:30	Talk Sessions	
	Interpersonal processes	Room 6
	Social judgment	Room 7
	Intergroup processes	Room 8
	Science perception & conspiracy beliefs	Room 9
16:30-17:00	Coffee Break	Atrium
17:00-18:00	**Best Paper Award - Plenary Session**	Lecture Hall
18:00-18:15	Closing comments	
20:00	Farewell Dinner	
9:00-11:00	September 1, 2022 - POSTCONFERENCE	
	"Social cognition and personality: On the relation between personality and evaluative conditioning"	

CONTENT

KEYNOTE TALKS

Plenary Sessions (Lecture Hall)

Jan DE HOUWER
Ghent University, Belgium

Building bridges between impression formation and learning: The related entities of entities principle as a guide for research on feature transformation

Both impression formation effects such as the halo-effect and learning effects such as evaluative conditioning can be seen as instances of feature transformation, that is, as revealing the impact of a known source feature of a source object on judgments about an unknown target feature of a target object (De Houwer et al., 2019). The shared features principle (Hughes et al., 2020) specifies when and how feature transformation takes place in situations with a different source and target object (e.g., a CS and US) and an identical source and target feature (e.g., valence): if the two objects share a bridge feature (e.g., they are presented together in space and time or the have the same color), then people will assume that those objects are also similar with regard to the source and target feature (i.e., that the CS has the same valence as the US). When the shared features principle is extended to relations other than similarity (e.g., if two objects are opposite with regard to location, people will assume that they are also opposite in valence), it can be referred to as the related features principle.
When the related features principle is extended to situations with source and target entities other than objects and bridge entities other than features (e.g., regularities that share objects), it can be referred to as the related entities of entities principle. For instance, effects of intersecting regularities (Hughes et al., 2016) can be seen as instances of shared objects of regularities effect. Because this analysis relates a wide range of phenomena at the descriptive level (i.e., by using the concepts of feature transformation) and functional level (i.e., by referring to the related entities of entities principle), it provides bridges between effects in as-of-yet isolated research domains such as learning and impression formation research and thereby inspires new research.

Ursula HESS
Humboldt University of Berlin, Germany

Facial mimicry as a communicative act

Emotional mimicry – the imitation of the emotional expressions of others – plays an important role in social interaction. Classic views of mimicry have described a phenomenon that is perception driven and largely independent of social context (Chartrand & Bargh, 1999). More recent work has shown that mimicry is better conceptualized as a communicative act that serves the goal of regulating interactions. This notion is based on the mimicry in social context model (Hess & Fischer, 2013) that emphasizes that we do not mimic the specific muscle movements we observe, but rather we mimic what we infer from these movements based on the context of the interaction. In this, the mimicker is not a passive observer who reflexively imitates, but rather an active perceiver who appraises the expression as a signal of the expresser's character, motives and goals. These appraisals – together with social context — impact on the mimicker's intention to affiliate with the mimickee. As such, mimicry is heavily shaped by top-down processes. As a communicative act, mimicry also depends on the signal value of the emotion that is mimicked. In this presentation, I will present data from recent studies on the influence of person perception, social norms and the presumed motives of the expresser on mimicry as well as research showing that both the elicitation of mimicry and the outcome depend on the specific emotion that is shown by the mimickee as different emotions have different appeal functions.

TALK SESSIONS

Room 6, 7, 8, 9

Room 6: Behaviour change
Chair: Raynae Dumpfrey

11:30-12:00

Organ Donation Decisions: When Deviating from the Status Quo Increases Perceived Vulnerability
Tehila Kogut & Marina Motsenok
Ben-Gurion University

Most countries suffer from a shortage of organs for transplant from deceased donors. Research suggests that the percentage of people who become potential organ donors vary among countries in line with the method used to determine voluntary consent. We examined how consent method, opt-in (where only those given explicit consent are donors) versus opt-out (where anyone who has not explicitly refused is considered a donor) affects people's perceptions of their own vulnerability. We show that people feel especially vulnerable when they deviate from the status quo, which explain why people in opt-in countries are reluctant to become organ donors.
Method:
Participants were people from countries with opposing organ-donation policies: the US (opt-in) and the UK (opt-out). In Study 1, participants read a scenario about a young man who has decided to register as an organ-donor (or not). Participants were then asked to evaluate the protagonist's vulnerability (his chances of needing an organ-donation, of becoming seriously ill and of being injured in a road accident). In Study 2, participants answered a two-part longitudinal survey, in which they were asked to rate their own perceived vulnerability (as in Study 1) before and after being asked if they are registered as organ donors.
Results:
In Study 1, we found a significant interaction ($F(1, 403)=9.56$, $p=.002$), showing that in opt-in country, vulnerability was perceived higher when the protagonist registered as an organ-donor than when he didn't. Conversely, in opt-out country, vulnerability was perceived higher when the protagonist opted-out from the organ-donors list, than when he remained on it. In Study 2, among US participants, we found a significant interaction ($F(1, 403)=4.40$, $p=.037$), showing that participants who are registered organ-donors felt more vulnerable after being reminded of their organ-donation status. Conversely, participants who were not registered, were not affected by the reminder about their organ-donation status.
Conclusion:
Studies show that the factor most decisively affects the number of registered organ-donors in various countries is the method used to determine voluntary consent. However, to date only a-handful-of-studies have examined the reasons for this huge effect, which appears to be driven by intuitive processes. Building upon research on 'tempting fate' and the omission bias, we found that deviating from the status-quo—by becoming an organ-donor in opt-in countries, or withdrawing from the list in opt-out countries—increases perceived vulnerability. Besides the theoretical contribution, we discuss how the understanding of the psychological barriers to organ-donation may help to overcome them.

12:00-12:30

Do Dietary Goal Failures Possess Self-Serving Policy Attitudes?

Sonja Grelle[1], Jan M. Bauer[2], Kristian S. Nielsen[3], Charlotte Kukowski[4], & Wilhelm Hofmann[1]
[1]Ruhr-University Bochum, [2]Copenhagen Business School, [3]University of Cambridge, [4]University of Zurich

While we set ourselves the noble goal of eating healthier from now on, most of us soon realize that breaking unhealthy eating habits and resisting the daily sweet temptations is extremely difficult. Despite good intentions and knowing about the serious health consequences of poor eating habits (e.g. overweight, high blood pressure, diabetes), we often fail. Dietary goal failures could benefit from government support through appropriate policies. Popular examples of policies encouraging healthier food choices are setting vegetarian food as the default in canteens, nutritional labelling in supermarkets or taxing sugary drinks. However, whether a certain policy succeeds in changing people's eating habits depends heavily on whether the target person endorses that policy. Public policy acceptance represents an important conceptual pivot, as it helps to maintain people's motivation to keep up the promoted behavior, despite inconveniences the behavior change may entail (e.g. high effort, time, financial costs). This project sheds light on people's attitudes towards public policy making by investigating whether and when dietary goal failures accept public policy interventions supporting healthier eating. We hypothesize that the extent to which people fail their dietary goals is related to their willingness to accept health policies. We further believe this link between dietary goal failure and policy acceptance to depend on (1) whether people rather blame themselves or others (such as the government) for their dietary goal failure and (2) the extent to which people perceive the policy as effective in achieving its goal of promoting a healthy diet. To test our predictions, we analyzed experience sampling data (n = 409 with 6,447 observations) on food choices and policy attitudes collected and provided by Bauer and colleagues (2022). Via a mobile app, participants regularly reported on all their significant food choices and evaluated the extent to which their choices were in line with their dietary goals (over a period between six to eleven days). In addition, in a pre- and post-questionnaire, participants estimated ten popular public policies regarding their acceptance and effectiveness and answered further questions measuring blame attribution, motivational factors and demographics, among others. Results of linear regression analyses revealed a negative link between dietary goal failures and public policy acceptance. Apparently, those facing difficulties to stick to their dietary goals tend to not possess self-serving policy attitudes but, on the contrary, are more inclined to reject policy support. Interestingly, exploratory factor analysis revealed this effect to be mainly driven by policies that discourage unhealthy choices compared to those that encourage healthy choices. However, for health-encouraging policies, this relation flipped when only out-of-home were examined. Blame attribution and perceived effectiveness did not impact our main link. Explorative analyses revealed that people who thought strongly about their diary goals when making their food selection were more likely to accept the policies, while people who rewarded themselves with food were less likely to accept them. Our findings suggest that the link between dietary goals, policy attitudes and food environment to be more complex than the current literature suggests.

12:30-13:00

Reduce, Reuse, Recycle, Repeat: The role of outcome-related feedback in the continued performance of recycling behaviors

Raynae Dumpfrey & Juliette Richetin
University of Milano-Bicocca

To address current environmental concerns, it is necessary for long-term and widespread adherence to pro-environmental behaviors. Habit formation is one way to promote long-lasting behavior change since habits can ensure behavior maintenance (Rothman et al., 2009). Habits are characterized as behaviors performed repeatedly, in a stable context, such that they are performed almost automatically (Hall & Fong, 2007). Unfortunately, these repetitions are subject to dips in motivation to continue, which may be why some individuals fail to achieve long-term behavior change (Orbell & Verplanken, 2010). Some research has been devoted to reinforcing motivational aspects to avoid these dips. For example, the frequency of outcome-related feedback affects habit formation regarding energy consumption (Webb et al. (2014). However, note that if motivational aspects are removed too soon, pro-environmental behavior decreases (Karlin et al., 2015; Maki et al., 2016). Additionally, the context seems to play an important role in behavior repetition, as individuals tend to recycle less in new contexts (e.g., on vacation), independent of environmental attitudes (Oliver et al., 2019).

Repetition in recycling behavior is necessary for creating habits and maintaining them across contexts. This project investigates some of its determinants. Experimental research on habit creation in recycling behaviors is scarce, and to our knowledge, no study has empirically tested the role of feedback frequency. This contribution will focus on feedback as a possible mechanism and the role of context. Study 1 examines whether manipulating the frequency of outcome-related feedback will affect behavior repetitions. Study 2 (pre-registered) investigates if feedback would overcome the negative effects of context changes on behavior repetitions. We created a computerized recycling sorting task in Inquisit to easily manipulate and observe the effects of various determinants of behavior repetition. In this task, participants are asked to sort various household waste items into appropriate bins with the goal of recycling as correctly as possible. Feedback is presented in the form of a bar at the top of the screen, which elongates corresponding to the number of items participants sorted correctly. The task includes a practice block and experimental blocks. The dependent variables consist of accuracy and the number of additional trials completed after the experimental blocks, thus operationalizing behavior repetition.

Study 1 (N = 130) investigated the effect of different feedback frequencies (every trial vs. every 40 trials vs. every 80 trials vs. a no feedback control) on the number of additional trials completed and accuracy. We also examined the moderation effect of individual differences in pro-environmental attitudes, identity, and behaviors, measured at the end of the study. Results indicated that the number of additional trials completed was a function of feedback frequency. Participants receiving feedback during every trial completed the most additional trials, and those from the control condition performed the least number. Additionally, considering the two extreme conditions (feedback at every trial vs. no feedback control), the individual differences in self-reported pro-environmental behaviors, identity, and attitude moderated the effect of feedback frequency on the number of additional trials completed. In all cases, the effect of feedback was stronger for those who scored high than those who scored low. However, when considering accuracy, individuals who scored low showed better performance in the feedback condition than control. In brief, the effect of feedback on behavioral repetition does not compensate for differences in existing pro-environmental behaviors or attitudes, but it does for accuracy. Study 2 (N = 201) investigated the effect of feedback (at every trial) on accuracy in familiar and unfamiliar contexts and the number of additional trials completed in a novel context. We also examined the mediation effect of goal desire. The recycling task was modified to idiosyncratically fit the household usually used by participants for the familiar context. Participants were first asked to indicate their desire to be accurate in the task. They completed one block with the familiar recycling context, a second measure of goal desire, and a second block of the task with an unfamiliar sorting system. Participants received feedback throughout the experiment (familiar and unfamiliar context) versus only in the familiar context versus no feedback (control group). Additional trials were measured in the unfamiliar context. Results indicated a main effect of feedback on the number of additional trials in the unexpected direction. Individuals not receiving feedback for the novel

context performed more additional trials than those who received feedback. There was no feedback effect on goal desire, goal desire change, or accuracy.
Taken all together, results indicate that motivation and feedback for recycling behavior is complex and may not be equal in different contexts (Miao & Wei, 2013). Discussion is organized around the necessity to explore further the role of specific motivations and feedback in the perspective of habit formation models, behavior maintenance models, and potential interventions for various pro-environmental behaviors.

Room 7: Biases in cognition

Chair: Ekim Luo

11:30-12:00

Temporal Neglect in Judgments of Progress: Why Monitoring Workers More Frequently Decreases Perceived Productivity

André Vaz[1], Clayton R. Critcher[2], & André Mata[1]
[1]*CICPSI, Universidade de Lisboa,* [2]*University of California*

When evaluating someone's performance, prior beliefs or knowledge can color what people see. Such effects can emerge due to a self-fulfilling prophecy, whereby expectations influence performance (e.g., Gentrup et al., 2020; Hill & Jones, 2021), or simply because this knowledge shapes how one interprets bottom-up cues that inform (but can ultimately distort) performance evaluation (e.g., Critcher & Dunning, 2009). When people judge progress, however, often these judgments are based not on a single observation, but rather on multiple observations through time, where one can see what has been accomplished from check-in to check-in. A social media influencer may anxiously keep checking how many likes a given post has amassed, and an overbearing manager will periodically check-in on their workers' productivity. Crucially, though, people may not make optimal, normative use of the information they acquire through these repeated information-gathering points. Previous research has identified several ways in which target evaluations do not optimally incorporate such temporally dispersed information acquisition. As one example, Alves and Mata (2019) demonstrated a cumulative redundancy bias in people's impressions of a target's performance, such that people fail to appreciate the redundancy in cumulative totals. For example, a basketball team that leads by 5 at halftime but wins the game by 1 actually performed worse than their opponents in the second half, even though they may never have trailed in the game. Perceivers can easily miss this fact. In the present work, we propose a different mechanism through which initial beliefs may affect the evaluation process. We instead note that priors may influence how often one monitors another's progress on a task. This, in turn, changes how much progress one is presented with at any given observation. Consider two workers who work at the same rate—for example, constructing 10 widgets a day—but one is monitored every day while the other only every other day. The more closely watched worker will have completed less work since the last check-in (i.e., 10 widgets). The observer will see more progress when checking-in on a worker less frequently (i.e., 20 widgets for two days). These different quantities that are observed at each check-in are of course explained not by differences in productivity, but by the different amount of time that has passed. However, we contend that people may be prone to display (at least partial) neglect of how much time has passed between check-ins. As a result, when judging each target's overall progress, perceivers instead rely too much on the average amount of progress observed at the typical check-in. The idea that people may neglect to account for time in their judgments has precedent. Kahneman and collaborators

(Fredrickson & Kahneman, 1993; Kahneman et al., 1993; Redelmeier & Kahneman, 1996; Varey & Kahneman, 1992), for example, have demonstrated a duration neglect whereby people display low sensitivity to the duration of experiences, when they prospectively and retrospectively evaluate those experiences. Instead, they show people tend to base their judgments on the most extreme and ending points of those experiences—a peak-end effect. In our basic paradigm, subjects act as a manager who must monitor the work output—by observing the number of pieces completed since the previous check-in—of several factory workers, throughout a simulated period, and evaluate their productivity at the end. The two target workers have the same objective work output rate—that is, after the whole period ends, both workers constructed the same number of pieces—but one of them is checked-in on more often than the other. As a result, for the worker who is checked-in on more frequently, participants see less progress (since the last check-in) each time they monitor the worker. This feature of how progress is observed—as how much has been completed or changed since the last check-in—is not an artificial feature of our paradigm, but rather reflects how progress is often observed.

Study 1 examines different factors that influence how frequently one would want to check-in on a target's progress. Workers described as being new on the team (as opposed to having been on the team for several years), workers assigned important (vs. unimportant) parts of a project, and workers rumoured to be slow and inefficient (vs. quick and efficient) are those participants indicate an interest in checking-in on more frequently. Study 2 examines the consequences of such differential monitoring. We varied how frequently participants checked-in on each of four workers. Over and above objective differences in workers' productivity, participants were biased by check-in frequency, judging the more frequently monitored worker to be less productive. Study 3 highlights the counterintuitive nature of our findings. Endowed with an impression management goal, participants thought they could best impress their manager with their own productivity should the manager monitor them more frequently. Study 4 combined across both Studies 1 and 2 to illustrate how these dynamics all play out in a more extensive workplace simulation. Participants were provided with information about three workers who were rumored to be relatively good, bad, or average. We then varied whether participants could choose for themselves how frequently to monitor each worker, or whether the monitoring schedule would be set (and consistent across workers). This allowed us to observe that control over how frequently one monitors workers may only help to reinforce (actually invalid) priors about their levels of productivity. Finally, Study 5 differentiates whether temporal neglect results from a failure to keeping track of how much time passed, or a failure when synthesizing the tracked information to arrive at subjective judgments of productivity.

Our results provide evidence of a different path in which prior beliefs can influence judgments of progress, by highlighting a tendency in people to neglect the time passed between check-ins, which would otherwise provide meaning to the amount of change observed at each check-in. Although our studies focused on a scenario where prior beliefs or knowledge played a role in determining check-in frequency, we expect temporal neglect will affect judgments even when check-ins are governed by a situational force or an internal motivation—when a person goes on vacation and does not check their email, they might feel overwhelmed with the number of pending emails when they get bac, a researcher obsessed with metrics such as citations will perceive less progress in their achievements than if they cared less about it and checked less often. More broadly, future studies may explore the idea of a silence neglect such that, when focusing on a continued experience, people tend to piece together the relevant moments of the experience and ignore the silence between them.

12:00-12:30

Do More Intense Social Threats Fade Away Quicker with Increasing Physical Distance?

Luc Vieira, Raphaël Adamczak, Mégane Gumier, Pierre Delaunet, & Christophe Blaison
University of Paris

To deal with the social and physical environment, people make a huge number of decisions every day. These decisions often involve regulating the distance between oneself and people or things. For this, people must represent the environment to themselves in an affective format. If a place feels good, they will approach it; if a place feels bad, they will avoid it. How people do that has been extensively studied under the guise of affective judgment in spatial context (Blaison, 2021). For instance, previous research showed that affectively salient places (also called "hotspots") elicit an assimilation effect nearby but a contrast effect farther away. This affective polarization of space depends on the valence and the nature of the influence emanating from the hotspot, the size of the spatial frame of reference, or the presence of borders. In the present research, we focused on the intensity of the affective reaction elicited by a hotspot. Specifically, we wondered whether a more intense social threat – like a threatening social group or someone with a contagious disease – dissipates slower, or on the contrary quicker, with distance than a milder threat. The prediction that it is slower stems from the intuition that distance doesn't matter much when the threat is intense whereas the prediction that it is quicker stems from the intuition that when the threat is intense, every step away actually constitutes a relief.
In a first preregistered experiment (https://osf.io/zte64/?view_only=4b7dc8ef47dd4281b021a05ce52cb698), 100 participants saw a schematic waiting room with someone with a contagious disease in a corner. The disease was either highly contagious (more intense threat) or lowly contagious (milder threat; within-subjects). In each condition, participants were asked to indicate how they would feel at 2 m or 7 m from the person with the disease with the valence and arousal dimension of the SAM scale (Bradley, 1994). They were also asked about their intention to flee from the threat with an ad-hoc scale. The results show an interaction effect of distance and threat intensity on valence, arousal and intention to flee: the intense threat fades away quicker with distance than the milder threat.
In a second preregistered experiment (https://osf.io/sbrz4; N = 220), we replicated the pattern of finding with a different threat. Here, the threat was a place with high vs. low criminality levels (between-subjects). As a proxy of how people felt at different distances, we asked how much they would be ready to invest for the rent of an apartment. Here too, the results show that the increase in rent, and the decrease in the intention to flee, is steeper with each unit of distance for the more intense vs the milder threat.
The results will be discussed in relation to Wilder's (1957) law of initial value, goal gradient theory (Brown, 1948) and feedback models of self-regulation (Carver & Scheier, 1990). We will also discuss the potential generalizability of this effect to the case of positive hotspots and, more generally, the contribution of the present findings to the understanding of affective judgment in spatial context.

12:30-13:00

The Analgesic Effect of Social Power on Empathy for Pain

Ekim Luo & Simone Schnall
University of Cambridge

Social power is defined as having control over valuable resources and influence over others. While previous studies have found an analgesic effect of social power on people's own experiences of pain, it is unknown whether this translates to the experiences of other people's pain, or commonly known as empathy for pain. The current research examines the relationship between social power and empathy for pain. Across three studies, we find evidence for an effect of social power on empathy for pain. In Studies 1 and 2 we assessed individual differences in Personal Sense of Power and presented participants with pictures of painful injections to someone else's hand. Sense of Power was negatively

correlated with empathy for pain, such that those with a high sense of social power perceived the painful injections delivered to someone else's hand to hurt less. In Study 3, we experimentally manipulated participants' social power by assigning them to the role of a manager (High Power) or a subordinate (Low Power) and subsequently measured their empathy for pain responses. We found that participants in the High Power Condition expressed significantly lower empathy for the person in pain compared to those in the Low PowerCondition. Importantly, in Studies 2 and 3 we separated the sensory (i.e. intensity of pain) and affective (i.e. unpleasantness of pain) components of pain to explore whether the predicted effects involved only one, or both pain components. Consistent with earlier research, we found that empathy for pain involved the sensory component of pain, not affective, in that there was an analgesic effect of social power on empathy for pain when participants were asked to rate the intensity of pain rather than its unpleasantness. Our findings may elucidate the lack of empathic response from powerful individuals in decision-making positions, in that having power may have stunted their proper empathic responses that would have otherwise been elicited by the magnitude of suffering.

Room 8: Memory

Chair: Fiona Kazarovytska

11:30-12:00

Proximate mechanisms of the survival processing effect: What have we learned from bilinguals

Margarida Vaz Garrido[1], Magda Saraiva[2], & Josefa Pandeirada[3]

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Adaptive memory approaches suggest that human memory has evolved to serve adaptive functions, namely, to maximize our chances of survival and reproduction. Such memory adaptiveness is documented in several studies showing increased retention of information processed in survival contexts– the Survival Processing Effect (SPE). The SPE has been replicated using different survival scenarios, stimulus materials, and memory tasks. However, while the robustness of the effect is well established, its mechanisms are still unclear. Emotion might be one such mechanism, but its role in the SPE is still being examined.

To further explore whether emotionality is involved in the SPE, we compared the effect in a first (L1) and a second language (L2). This comparison is relevant to addressing the role of emotionality in the SPE, as several studies indicate that emotional activation seems to be larger in L1 than in L2. Therefore, if the SPE depends, at least to some extent, on the emotional activation triggered by the survival condition, the lower emotionality involved in L2 should decrease or even eliminate the SPE in L2.

In two studies, European Portuguese - English bilingual participants rated the relevance of the information to the survival and moving scenarios and performed a recognition (Experiment 1; N = 124) or a free recall task (Experiment 2; N = 226) in L1 or L2. Across the two experiments, the survival advantage was replicated in L1 but not in L2. Participants recognized and recalled more items presented in a survival than in a moving (control) scenario, but only when performing the task in their native language. No significant main effects of language or L2 proficiency were observed. The results from these two experiments suggest that the lower emotional activation when in L2 hinders the memory advantage in the fitness-relevant context.

These experiments represent the first attempt to explore the role of emotional processes in the SPE using a language manipulation. However, while differences in emotional processing between L1 and L2 are well documented in the literature, these differences were only inferred in the current studies. Future studies using arousal ratings and/or concurrent psychophysiological measures (e.g. HBR, SCR) to directly tap emotional processes could strengthen the reported findings. We will discuss additional studies that further explore the emotional mechanisms underlying the SPE in particular and adaptive memory in general.

12:00-12:30

Easy to remember and difficult to forget? Using item-method directed forgetting to investigate intentional forgetting of social information

Johanna Marie Höhs & Anne Gast
University of Cologne

Previous research has found a memory advantage for social exchange-relevant information. Although this advantage can be interpreted in support of an adaptive memory system (e.g., Kroneisen, 2018), the adaptivity of such memory advantage is dependent on the information's accuracy. That is, whereas encoding advantages for accurate social information are adaptive, a memory advantage for inaccurate social information is maladaptive. Thus, for a memory advantage for social information to be adaptive, humans must be able to successfully correct potential errors that are detected after successful information encoding as soon as more reliable information becomes available. Whereas one could possibly aim for storing inaccurate information along with a tag that informs about the information's inaccuracy, people's poor source memory paired with a tendency to rely on a priori information credibility makes this strategy a risky default option. Forgetting inaccurate information, on the other hand, represents a less risky and more parsimonious alternative. Successfully forgetting inaccurate information avoids any misleading influence in the future without adding any storage load. Yet, can people successfully forget information that benefits from an encoding advantage? To get a better understanding of the memory system's adaptivity, we addressed the question of whether encoding advantages for social information come at the expense of less successful intentional forgetting in this research. Specifically, in two preregistered online experiments, we used the item-method-directed forgetting paradigm to investigate our prediction that intentional forgetting is less effective for social compared to non-social information. In Experiment 1 (N = 87), participants learned behavioral descriptions about a fictional person that varied in their relative importance in social perception. We relied on the two-facet model of fundamental content dimensions (Abele et al., 2016) to create three information type conditions that varied in their relative social importance (communion >agency >neutral). Given the priority of communion in social perception, we expected that intentional forgetting of communal information would be least effective due to expected encoding advantages. Furthermore, we expected intentional forgetting of agency information to be less effective than intentional forgetting of neutral information. In a fully crossed within-subjects design, we instructed participants for half of the behavioral descriptions (communion versus agency versus neutral) to remember them and for the other half to forget them following the typical item-method directed-forgetting paradigm. In this paradigm, participants receive the information sequentially and receive the post-encoding instructions (remember versus forget) trial by trial after information encoding. Recognition memory for both the to-be-remembered and to-be-forgotten information was assessed in an old-new recognition test. In Experiment 2 (N = 87) we used a similar study design but applied a broader definition of social information. Instead of asking participants to learn both social and neutral information about one individual, we instructed participants to learn information about different

humans performing social behavior (social information) versus information about objects (non-social information) as a control group. The Frequentist and Bayesian analyses results of both experiments revealed a medium to large-sized directed forgetting effect. This speaks for people's general ability to intentionally forget information adaptively. Contrary to our prediction we found no evidence for reduced forgetting of social compared to non-social information in any of our experiments.

12:30-13:00

No Differences Between Memory Performance for Instances of Historical Victimization and Historical Perpetration: Evidence from Four Large-Scale Experiments

Fiona Kazarovytska & Roland Imhoff
Johannes Gutenberg University of Mainz

Background. In their pursuit of a positive, moral ingroup identity, groups tend to flatter and deceive themselves, leading to predictable biases in their collective memory. Based on the literature indicating that memory distortions can help to maintain a favorable ingroup image (Baumeister & Hastings, 1997; Bilewicz, 2016; Halbwachs, 1992; Rotella & Richeson, 2013; Sahdra & Ross, 2007; Zengel et al., 2021) and that victimhood connotes moral superiority while perpetration is associated with a moral ingroup threat (Bar-Tal et al., 2009; Gray & Wegner, 2009), the present research tested the previously unstudied hypothesis that individual memories of collective historical events can be distorted in a way that attenuates ingroup-threatening perpetration information and highlights morally afflicted victimhood information. The research further examined whether this memory bias was particularly pronounced among individuals with a defensive ingroup identification (i.e., collective narcissists; Golec de Zavala et al., 2009).
Methods. To address these hypotheses, four pre-registered, high-powered recall and recognition experiments (N = 2990) with three German (Studies 1, 2, and 4) and one British sample (Study 3) were conducted. In all studies, participants were randomly assigned to one of three conditions including a stimulus text describing either (1) the historical suffering of their national ingroup (i.e., Germans or Britains; victimhood condition), or (2) the historical suffering of another group caused by their national ingroup (perpetration condition), or (3) the historical suffering and perpetration of two other groups (control condition). After a three-minute arithmetic distraction task to ensure that the previously read text passage was no longer present in short-term memory (Atkinson & Shiffrin, 1971), the participants were unexpectedly asked to recall the text freely as accurately as possible (Study 1) or to recognize text passages (Studies 2-4) out of 24 passages, half of which were actual stimuli and half of which were contextually appropriate distractors. The recognition studies were subjected to Signal Detection analyses (Stanislaw & Todorov, 1999) to distinguish an actual change in memory performance from the general tendency to claim that information had been seen earlier. To increase ecological validity on the one hand and ensure experimental control on the other hand, all studies used historically accurate descriptions of real historical events as stimulus material, which were parallelized across conditions (e.g., experiences from bombing of Dresden, London and Chongqing). In Studies 3 and 4, these stimulus texts were randomly sampled from a set of 5 respectively 12 different texts per condition in order to increase the generalizability of results to a larger population of historical events (Brunswick, 1955). To demarcate the memory effect from a pure encoding effect (i.e., participants neglect to adequately encode the ingroup threatening content and therefore show a lower memory performance; Sedikides et al., 2016) we included three manipulation check questions in each study that asked for details about the content of the text. Participants who did not encode the text carefully enough to answer at least two of these three multiple-choice questions correctly, were excluded from analyses (however, the findings did not differ in statistical interferences whether excluding these

participants or not). To account for communication effects (i.e., refusal to communicate the content despite accurate memory of it; Cooper & Stone, 2004), we asked participants about their willingness to engage in interpersonal communication about the content read, as well as their desire to see it discussed in the media or at school. If it was not a memory effect but primarily a refusal to report memories, it seemed reasonable that participants also indicate that they do not want to communicate about this content or see it discussed publicly (however, there were no parallels in group differences between communication and memory effects).

Confirmatory Results. In Study 1, two independent, trained and hypotheses-blind raters coded the accuracy of the recall performance (ICC = .95). In Studies 2-4, sensitivity d' (signal detection parameter) was used as the main measure of memory performance. In Studies 3-4, memory was not compared in ANOVAs but in linear mixed models implementing text as a random factor (Judd et al., 2012). Contrary to expectations none of the studies revealed significant differences in memory performance depending on the ingroup's role, even among collective narcissists. Instead, equivalence testing using the TOST (Two One-Sided Tests) procedure (Lakens et al., 2018) even rejected the presence of the literature-based, pre-registered smallest effect of interest (SESOI) defined to support the proposed memory bias (Study 4).

Exploratory Results. For exploratory purposes, self-reported emotions elicited by the text, willingness and subjectively perceived difficulty to remember the text as well as perceived historical accuracy of the text were measured throughout studies (for the effects of perceived credibility on individual memory and response bias see e.g., Dube et al., 2010; Roedinger et al., 2001). However, even when controlling for any of these variables, memory performance still did not differ between groups. Moreover, we explored potential moderating effects of age (see Rimé et al., 2015 on generation effects on collective memory), political orientation, non-narcissistic ingroup identification, demand for historical closure (Imhoff et al., 2017) and competition over victimhood recognition (Shnabel & Nadler, 2008). However, the only significant moderation effect was found for age in Study 1 (but not in the other studies). None of the other variables moderated the effects of condition on memory performance in any of the studies.

Discussion. Given these surprising results, the question arises as to why we did not find significant effects. Reasons might include (1) that the threat caused by the ingroup's historical transgressions was not strong enough to elicit defensive memory effects (see e.g., Kazarovytska et al., 2022), (2) that victim status was not sufficiently favorable to be remembered better (see e.g., Shnabel & Nadler, 2008 on the threat of agency evoked by victim status), (3) that even though a moral ingroup threat was induced, this does not automatically imply the prompting of a defensive reaction (see e.g., Gausel et al., 2012), or (4) that individual short-term memory distortions do not reflect defensiveness to historically conditioned collective morality concerns. Viewed from this perspective, the present results strongly underscore the relevance of other upstream processes (e.g., selective inattention) and downstream processes (e.g., attribution; Klein, 2013) of memory to understand the social salience of collective victimhood narratives.

Room 9: Evaluative conditioning
Chair: Zachary Adolph Niese

11:30-12:00

(Why) Is Evaluative Conditioning Moderated by Big Five Personality Traits?
Moritz Ingendahl[1] & Tobias Vogel[2]
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Evaluative conditioning (EC) is a key concept in attitude formation and refers to the change in the liking of a stimulus due to its co-occurrence with another stimulus. Despite its prominence, research on interindividual differences in EC is scarce. First findings by Vogel et al. (2019) indicate that individuals high on Neuroticism and Agreeableness show stronger EC effects. However, it remains unclear why these moderations occur. In an extended preregistered replication (N = 511) of Vogel et al. (2019), we first test whether the Big Five are associated with interindividual differences in EC. We replicate the moderation by Agreeableness and further show that this moderation can be attributed to interindividual differences in the evaluation of the unconditioned stimuli and interindividual differences in contingency awareness. The moderation by Neuroticism was considerably weaker yet seems to be independent of these processes.

12:00-12:30

Why is there no negativity bias in Evaluative Conditioning?
Lea M. Sperlich & Christian Unkelbach
University of Cologne

In Evaluative Conditioning (EC), neutral stimuli (conditioned stimuli; CS) are presented together with positive or negative stimuli (unconditioned stimuli; US), thereby changing their evaluative value in the direction of the valenced US (De Houwer, 2007).
Typically, EC studies find similar changes for CSs that were presented with positive and negative USs. This finding is insofar surprising as research from other areas usually predicts and finds stronger influences of negative information on evaluations, a so-called negativity bias (Rozin & Royzman, 2001). One reason behind this surprising finding in EC might be the experimental structure of experiments in EC: They typically present positive and negative CS-US presentations equally often. That is, the structure of an EC experiment does not depict the typical structure in the ecology, where the frequency of positive and negative information differs (Unkelbach et al., 2019).
Thus, in three experiments (n = 405) we manipulated the occurrence of positive and negative information in two different ecologies. Based on the assumption that infrequent stimuli attract more attention than frequent ones (see Alves et al., 2017), we predicted that CSs that appear infrequently in an ecology lead to stronger EC effects than CSs that appear more frequently. That is, CSs that appear together with negative USs in a positive ecology should elicit stronger EC effects than CSs that appear together with negative USs in a negative ecology. Likewise, CSs that appear together with positive USs in a negative ecology should elicit stronger EC effects than CSs that appear together with positive USs in a positive ecology. We found this predicted main effect of ecology across two different ecologies,

suggesting that structural properties of the environment (e.g., frequency of stimuli) contribute to the formation of valence asymmetries. Thus, our findings support the hypothesis that many instances of negativity bias do not follow from valence per se, but from the distribution of information in the environment (Unkelbach et al., 2019).

12:30-13:00

The flexibility of sampling's positive impact on evaluation

Zachary Adolph Niese & Mandy Hütter
Universität Tübingen

Numerous studies show that neutral stimuli (conditioned stimuli, CSs) can acquire valence simply by being paired with a positive or negative stimulus (unconditioned stimuli, USs). The present research moves beyond traditional paradigms demonstrating this evaluative conditioning (EC) effect while removing the autonomy people often have in everyday life to sample a stimulus or not. That is, we tested EC effects in a context that provided people with the autonomy to sample the pairings they viewed. Specifically, on each trial in the task, participants selected one of several CSs to view with a paired US. Participants in a yoked condition passively viewed the same information as a participant from the sampling condition. EC effects replicated in both the low-autonomy, yoked condition and the high-autonomy, sampling condition. Additionally, we observed a robust sampling decision effect among people in the high-autonomy condition, in which they showed a positive evaluative shift the more often they sampled a CS, regardless of whether it was paired with positive or negative USs. In the current pre-registered study (n = 198), we tested whether this sampling decision effect is caused solely by an overlearned association between approach behavior and liking, or whether the effect might flexibly shift depending on people's interpretation of what sampling means. To do so, we manipulated participants' sampling goal by asking some participants in the high-autonomy condition to sample primarily positive interactions, some to sample primarily negative interactions, and others to sample a balanced amount of positive and negative interactions. Again, we replicated the traditional EC effect across all conditions. We also found a significant interaction between autonomy condition, sampling goal, and number of samples on evaluative shift. First, we replicated previous findings in which number of samples had an effect on evaluative shift in the high-autonomy conditions, but not in the low autonomy-conditions. Critically, the effect in the high-autonomy conditions was moderated by sampling goal: there was a positive effect of number of samples (regardless of paired US valence) in the positive and balanced sampling conditions, but no significant effect of number of samples in the negative sampling condition. Thus, these results highlight the role of people's interpretation of sampling in the sampling decision effect. In particular, in a context in which sampling should not necessarily predict liking (i.e., when one's goal is to sample mostly negative interactions), sampling a CS more (vs. less) often does not lead to liking the CS more afterward.

Room 6: Economic games and decision-making
Chair: Maciej Pastwa

14:30-15:00

Trust-Trustworthiness Gap in Negotiations

Shira Garber[1], Yoella Bereby-Meyer[1], Simone Moran[1], & Boaz Keysar[2]
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Negotiations are often inefficient in the sense that they leave value on the table that could increase the outcome of at least one party. This inefficiency is largely attributable to parties' unwillingness to cooperate because of distrust (Kong, Dirks, & Ferrin, 2014; Lewicki & Polin, 2013). We offer a "Trustworthiness Gap Theory" – i.e., a systematic discrepancy between how much people trust their negotiating counterpart (i.e., expect them to be trustworthy) and how trustworthy people actually are in negotiation. Specifically, we propose that because people typically hold a ""Homo Economicus"" model of others, assuming others are motivated solely by self-gain and thus will be dishonest when expedient (Lewicki, 1983; Miller, 2001), negotiators expect their counterparts to be untrustworthy. In contrast, vast behavioral research suggests that aside from being motivated to deceive for self-gain, humans are also motivated by moral concerns (Gneezy 2005; Mazar et al., 2008; Shalvi et al., 2011). They strive to preserve a self-image of being honest and fair and anticipate feeling guilty if they deceive, which constrains their dishonesty. Our theoretical model, then, assumes that because negotiators expect their counterpart to behave as a homo economicus, they underestimate how trustworthy that counterpart really is. We tested and found support for this prediction in three online studies (total N=602) comparing negotiators' actual deception (Behavior condition) to observers' predictions (Expectations condition) regarding this behavior. Across experiments, Behavior participants were assigned the role of sellers, negotiating a second-hand music player with a pre-programmed "buyer". They were given an opportunity to deceive, by being informed of a malfunction of the device. Participants in the Expectations group received a precise description of the information provided to participants in the Behavior condition, and were requested to estimate negotiators' (i.e., seller-participants') deception. The experiments varied in terms of both the samples used (students and Mturkers) and the way they solicited deception and expectations.
Experiment 1 (N=161, MTurk workers). Participants in the Behavior condition (N=75) were instructed to initiate the negotiation chat by choosing one of two opening messages to send to the buyer: A truthful message (conveying the malfunction) or a Deceptive message (that didn't mention the malfunction). Participants in the Expectations condition (N=86) predicted which of the two messages a specific seller (e.g., seller number 124) would choose. In line with our prediction, while actual negotiator lying rates were relatively low (36.8%) the majority of observers expected negotiators to lie (56.5%), and these proportions were significantly different ($X2$ (1, N = 161) = 6.203, p = 0.013).
Experiment 2 (N=107, management students). We tested the robustness of our findings in a more natural setting, enabling participants to freely send messages to counterparts, rather than choosing between preset messages. In the Behavior condition (N=50) participants received a message from the buyer, asking: "The iPod doesn't have any problems, does it?". Two research assistants, blind to experimental conditions, independently coded participants' (sellers') responses – i.e., whether or not they disclosed the malfunction. In the Expectations condition (N=57) participants predicted whether

or not when responding to the buyer's question, a specific seller would disclose the malfunction. While the great majority - namely, 84.7% of sellers in the Behavior group were honest and disclosed the malfunction, only 29.8% of participants in the Expectations group believed the seller they were predicting would reveal the music player's problem; the vast majority (70.2%) thought they would not. Experiment 3 (N=334, MTurk workers). We conducted a more stringent test of negotiators' honesty, by prompting them with a general question ("What can you tell me about it"?), rather than a direct question regarding problems, which may have boosted honesty in Study 2 (Minson et al., 2018; Schweitzer & Croson, 1999). We also extended our measures of expectations in two ways. First, rather than predicting deception from the perspective of an independent observer, participants in the Expectations condition were asked to take the perspective of a buyer and to predict whether their counterpart seller would deceive them. Second, in addition to predicting deception of a single seller participant, they were asked to estimate the overall ratio of deceivers. As in Study 2, two research assistants blind to experimental conditions, independently coded whether sellers in the Behavior condition (N=179) were honest (mentioned the device's malfunction) or not. Consistent with our hypothesis, here too, participants in the Expectations condition (N=155) overestimated the ratio of deceitful sellers: While only 43.6% of participants deceived in the Behavior condition, the mean expected ratio of deceivers was 62.5% (z = 6.190, p<0.001), and this overestimation was even more striking when predicting the deception of a single counterpart: 77.4% of participants predicted their counterpart would be deceptive (X2 (1, N = 334) = 39.417, p <0.001).
Altogether, our results provide evidence of a trust-trustworthiness gap, where negotiators' trustworthiness may be underestimated by the "social perceiver", as a bystander, and even more so, as a counterparty in that same negotiation. These findings extend the literature on negotiation and trust, by exploring the understudied social perception process that underlies the formation of trustworthiness expectations in negotiations, and thus influences the establishment of initial trust. In addition, our "Trust-Trustworthiness Gap" model challenges the common implicit notion that negotiators essentially tend to be dishonest, by consolidating between the negotiation literature that documents high rates of dishonest behavior, and the ample work on behavioral ethics demonstrating that while people aim to maximize their self-interest, they also strive to do it honestly. The findings regarding initial trustworthiness expectations, are particularly important, given the reinforcing dynamic of mistrust on trustworthiness which may deter efficient negotiation.

15:00-15:30

The Aggressive Experts: The Effect of Expertise-based Status on Cost-Inflicting Strategies in an Economic Contest Game

Wei Luo & Ana Guinote
University College London

Social hierarchy is ubiquitous and extensive research has been conducted to examine the effect of having status. Still, there exists conflicting evidence regarding if people use aggressive strategies in a status hierarchy. Some research highlights how status is predominantly granted by others when someone displays valued qualities, and aggressiveness may not be valued (e.g., Magee & Galinsky, 2008). Meanwhile, other theories suggest that status can be actively grabbed with aggressive cost-inflicting strategies (Cheng et al., 2021). Literature reviews suggest that high-status people are self-oriented in a competitive environment (e.g., Li et al., 2016). However, there is no yet direct evidence of this notion.
In four pre-registered online experiments, participants went through actual training to become experts or beginners in identifying real paintings or sculptures. Then, they played an economic contest game,

in which higher investment leads to a higher likelihood of taking away the game partner's money without necessarily earning more (De Dreu et al., 2019). The experiments tested the primary hypothesis that high status induced by high expertise would increase cost-inflicting strategy and thus increase participants' investment in the economic contest game.
In Study 1(N = 105) and 2 (N = 109), participants became a beginner and competed against an expert in one art domain (i.e., low status), and became an expert and competed against a beginner in the other art domain (i.e., high status). In Study 3 (N = 209) and 4 (N = 260), participants were randomly allocated to a high-expertise and a low-expertise group.
It was found that participants invested significantly more when they were experts competing against a beginner compared to when they were beginners competing against an expert (Study 1-2). However, in comparisons of independent groups, participants' and partners' expertise levels did not significantly affect investment (Study 3-4). Participants also invested the most when they were beginners competing against another beginner, and significantly more when they could inflict a cost on the partner than when there was no cost infliction (Study 3-4). Moreover, the desire for power significantly and positively predicted investment (Study 3). The culture was a moderator; Study 1 was replicated in China (N = 108)and found significantly higher investment by British participants than Chinese participants, whose investment was not significantly affected by status.
The findings showed that when Western participants experienced the expertise difference, they flexibly adjusted their strategies in only 20 minutes. This result provided initial direct evidence on how people may inflict a cost on others when they have status, aligning with the line of research suggesting earning prestige is not an exclusive strategy to navigate status hierarchy (Cheng et al., 2013). However, this finding was not replicated in later studies, potentially because participants did not adequately perceive the expertise difference when they had only one level of training. Nevertheless, the high investment seems to be related to a motivation to be dominant, especially when participants had the chance to cost the other. Overall, the findings suggest that when people perceive high status, they become at least more self-oriented than when they do not. Yet, more research is needed to understand if there is an antisocial intention behind the seemingly aggressive strategies.

15:30-16:00

Effects of First Impressions and Draw Reliability on Risk Aversion
Maciej Pastwa, Adam Sobieszek, Małgorzata Budzińska, Justyna Dominiak, & Filip Majtyka
University of Warsaw

Betrayal aversion has been proposed as an explanation of why people are less willing to participate in games, where the source of the uncertainty is a person rather than nature (Bohnet & Zeckhauser, 2004, Bohnet et al., 2008). This has been investigated by comparing behavior in trust games with behavior in random draw economic games, and indeed further studies demonstrated that factors related to betrayal likelihood influence behavior in the trust games — e.g. the trustworthiness of the face of the other player has been shown to increase trusting decisions (De Neys et al., 2017). Betrayal aversion may however play a role in a wider range of decisions within a social context (Mifune & Li, 2018). To investigate this, we employed a new method for manipulating the trustworthiness of realistic faces using Generative Adversarial Networks and investigated its influence in tasks that do not typically involve trust. The method manipulates face trustworthiness without changing the social category the person in the picture belongs to (e.g. age, race), thus allowing to disentangle effects of the two. This is important as belonging to the same social group has been shown to felicitate trust decisions in the trust game (Fershtman & Gneezy, 2001). Moreover, recent evidence has shown that a trust game can, in some settings, elicit less betrayal aversion than a lottery game (Fetchenhauer et al., 2020). Little is

known about the boundaries in which types of decisions trust and betrayal aversion play a role. To investigate this, we propose a second variable manipulated in this project, namely the lottery game being perceived as more or less involving trust — the uncertainty relying more or less on the stranger. Namely, we change the amount of control the participant has on the effects of a lottery: the draw will be done either by the stranger, the participant, or will be done on a third-parties computer (neutral condition). We hypothesized that there would be no effect of trustworthiness when the participant or a computer was performing the draw, as the untrustworthy stranger could only betray the participant when they conducted the draw.
In the pilot study for this project we modified the task by Holt and Laury (2002), that measures risk aversion, where participants are asked to choose between two bets (less risky vs more risky). We added two components to the procedure: first, the bet was said to be offered by the person from a displayed picture (3 conditions: unmanipulated face; trustworthy face; non-trustworthy face); second, we specified the method by which the draw is conducted (3 conditions of control over lottery: the player has control; the person on the picture; independent third party). We manipulated the two factors orthogonally and measured the riskiness of decisions.
We found a main effect of face trustworthiness ($F(2,124) = 3.76$, $p = .026$), post-hoc tests with the Bonferroni correction showed that faces manipulated to be more trustworthy elicited riskier choices than when unmanipulated ($p = .007$). No interaction was found, implying the trustworthiness effects may hold in all three types of draws. Two further studies are planned in this project, the results of which we wish to present at ESCON, using both declarative measures of risk and behavioral procedures like the Balloon Analogue Risk Task.

Room 7: Emotions

Chair: Tal Eyal

14:30-15:00

What the pupillometry can tell us about intention to emotion

Dalit Milshtein[1], Ronen Hershman[2], & Avishai Henik[2]
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There is a broad consensus among most theories that emotional processing is automatic. However, the ability to indirectly influence emotional responses is observed in a variety of social, artistic, and clinical phenomena. For instance, crying or laughter oh the theatre stage as result of voluntary manipulation by an actor of his own mind. We hypothesized that intentions of participants to voluntarily generate manipulate and maintain emotional imageries during emotional episode would significantly affect the depth and nature of emotional processing. For this aim we employed new version of script driven imagery task. This task consists of two intervals, that is, reading interval in which the script is present and subsequent blank interval. This task enables us to manipulate (un)intentionality factor because the two task's intervals are differently prone to the influence of this factor. Two groups of participants were asked to read different 9-word scripts describing positive, negative and neutral events. Scripts were presented word by word using rapid serial visual presentation (RSVP). The participants in one group were asked to intentionally imagine themselves in the situations described by the scripts. The participants in the second group were required to silently read the scripts without intentional imagining. In both groups, the reading interval was followed by a blank interval that was followed by a shape identification task. As expected, a prominent difference

was found between the two (un)intentional groups mainly in the post reading time window This trend consistently repeated across all the valence conditions and moreover, in the separate analyses for each emotional valence (i.e., negative, positive, and neutral). The foregoing was supported by RTs in the shape identification task also. Namely, response latencies were significantly slower for the intentional imagery group compared with those of the unintentional group. In addition, examination of (un)intentionality effect on the emotional processing of alternative states of affairs indicated a substantial difference between emotional and neutral trials in the two investigated groups. Namely, for both (un)intentionality groups meaningful differences between neutral and emotional trials were found from about 2,300 ms post the script onset. In addition, and as expected, meaningful differences between negative and positive trials were found only in the intentional group. The foregoing places our findings not only in the genus emotional imagery but may contribute to automaticity study in general. Furthermore, it implies on the significant role (un)intentionality can play in our emotional life.

15:00-15:30

"Now I am still angry but tomorrow I will work for you again": Permitting expression of anger after unfair feedback does not prevent immediate negative reactions but protects commitment and loyalty towards an employer

Bahram M.Kahriz, Carola Hillenbrand, & Julia Vogt
University of Reading

Anger is often recognized as an emotion that should be controlled or suppressed in work-related contexts. However, in answering recent calls in literature, this research expands this discussion by studying the effect of permitting the expression of anger in work-related contexts. In particular, the present research answers call to explore whether and how feeling the emotion anger after receiving unfair negative feedback can cause constructive/destructive behaviours towards organisations. In pilot (N = 85) and main experimental (N = 491) studies, we investigated whether permitting expression (versus asking individuals to suppress) of anger after unfair feedback leads to more constructive reactions – immediately and in the long run. We also investigated the moderating effects of moral identity on the link between permitting the expression of anger (versus asking individuals to suppress) and constructive/destructive behaviours. A key contribution of this study is therefore that it examines whether permitting the expression of anger (versus asking individuals to suppress) affect individuals' outcome behaviours towards the organisation differently. Moreover, the present study contributes to the study of anger by investigating the moderating role of moral identity on the relationship between permitting the expression of anger and constructive/destructive outcome behaviours. We found that permitting the expression of anger in contrast to suppressing it does not prevent immediate negative reactions such as less constructive ways of communicating feedback or it does not reduce expression of immediate negative feedback. However, it motivates individuals to work for the organisation again and leads to higher levels of long-term commitment and loyalty to the organization and employer. Interestingly, while to the best of the author's knowledge these results are novel in the context of anger research, the findings of this study are resonant of recent findings in the related area of "aggression research". Recent findings there suggest that when people are informed that negative feedback was not given intentional, this does not change immediate reactions but can reduce (longer-term) aggressive behaviour. The results of this study suggest a number of implications for literature and practice in terms of anger regulation in work contexts, which the latter part of the thesis discusses.

Keywords: Permitting the expression of anger (versus asking individuals to suppress), Long-term commitment and loyalty, Immediate reaction, Emotion regulation, Feedback, Organisational behaviour.

15:30-16:00

Smiling with the Enemy. Facial Reactions towards Expressions of Schadenfreude

Vanessa Mitschke & Andreas Eder
Julius-Maximilians Universität Würzburg

Schadenfreude smiles communicate malicious intentions and are generally frowned upon on a moral level. During aggressive competitions displays of Schadenfreude can potentially increase aggressive punishments therefore escalating aggressive interactions. In a serious of two studies, we measured facial muscle reactions (fEMG) towards opponents smiling about the participants punishment (Study 1), subsequent aggressive punishments (1+2), and the categorization of smiles in competitive-aggressive contexts (2). Seeing the opponent smile about one's own punishment intensified punishments selected for the next trial, showcasing the escalation potential of Schadenfreude for aggressive interactions. Contrary to the hypothesis of a counter-empathic facial response, however, facial EMG recordings demonstrated an attenuated smile mimicry. This attenuation was only present in the CS muscle relaxation and not in the ZM muscle activation. The short latency of the muscular response and the time course of simultaneous responses in both muscles, suggests that the smiling reaction was a fast-acting mimicry response towards the smiling opponent, irrespective of previous provocation. These results stand in contrast to previous research indicating counter empathic responses towards disliked others (during competition, towards outgroups). Monitoring and simulating the opponents' facial responses may play a vital role in interactive competitions, which is often neglected in previous research which mainly relies on passive viewing contexts without social engagement.
Results obtained in Study 2, indicate that the categorization of smiles is dependent on social context, and further indicates that Schadenfreude smiles are escalating aggressive interactions and perceptions of negative attitudes. Participants clearly distinguished between smiles based on reward, Schadenfreude, and appeasement, based on the previous actions during the interactive game. Mimicry results are discussed in the light of simulation and communication aspects of facial mimicry and its respective modulation via social context and engagement. Especially reactions towards smiles could serve as an interesting venture point for future studies to investigate the underlying inhibition processes modulating automatic mimicry responses based on social aspects. As a next step, we are currently conducting studies investigating the processes behind the inhibition/attenuation of affiliation signals utilizing facial smiling Go/NoGo tasks comparing the muscle inhibition towards in- and out-group status individuals.

16:00-16:30

Emotion regulation by psychological distance and level of abstraction

Tal Eyal[1] & Tal Moran[2]
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Self-reflection is suggested to attenuate aversive feelings, yet researchers disagree on whether people should adopt a distant or near perspective, or process the emotional experience abstractly or concretely for it to be effective. Based on the relationship between psychological distance and level of

abstraction (Liberman & Trope, 2014), we propose the "construal-matching hypothesis," according to which psychological distance and level of abstraction differently influence emotion intensity, depending on the level of construal of the appraisals underlying the regulated emotion. The appraisal of "low-level emotions" involves concrete perceptual information (e.g., basic emotions, primary emotions) whereas the appraisal of "high-level emotions" involves abstract symbolic information (e.g., self-conscious emotions, secondary emotions). We predicted that psychological distance and abstract processing would decrease the intensity of low-level emotions and increase the intensity of high-level emotions that are experienced when people engage in a matched high-level construal. In this talk, I will present two meta-analyses that were conducted to test the construal-matching hypothesis. These meta analyses tested the effects of psychological distance (k = 230) and level of abstraction (k = 98) on emotional experience. We found that, overall, a distant perspective attenuated emotional experience (g = 0.52), but this effect was weaker for high-level emotions (g = 0.29; e.g., self-conscious emotions like shame) than for low-level emotions (g = 0.64; e.g., basic emotions like anger). Level of abstraction only attenuated the experience of low-level emotions (g = 0.2) and showed a reversed, yet non-significant effect for high-level emotions (g = -0.13). These results point to possible differences between psychological distancing and level-of-abstraction and highlight the importance of considering the type of emotion experienced (i.e., low-level or high-level) for emotion regulation.

Room 8: Impression formation

Chair: Juliane Degner

14:30-15:00

Multi-modal cues to change your mind: Exploring the intertwining of faces, voices and behaviours in impression updating

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A glimpse of a face, a few syllables listened from a speaker, or coming to know one's single action are sufficient to produce a judgement about a person. However, such impressions are not immutable and can be updated when further information becomes available. For instance, previous findings suggested that face-based impressions are updated when additional and inconsistent behavioural information is provided. Similarly, face-based and voice-based impressions are updated when inconsistent cross-modal cues are revealed. Prior work did not test whether impressions formed on others' behaviours can be updated when the information coming from their face or voice is revealed. Moreover, it is unknown whether faces and voices differ in updating power. In two experiments, we investigated impression updating by taking into account cues coming from distinct sources (i.e., faces, voices, past behaviours) signalling others' (im)morality. In Experiment 1, we aimed at unveiling the most powerful cue to update first impressions based on past behaviours. First, participants were presented with three individuals who engaged in immoral behaviours. Then, participants rated their global impressions of each individual on a 7-points scale (-3: negative; +3: positive). Next, the individuals were presented again but associated with either a trustworthy face, a trustworthy voice, or a moral behaviour they had previously performed. Eventually, participants reported their impressions a second time. In Experiment 2, we also investigated the resistance of impressions based on seeing a face or listening to a voice to additional behavioural information. Thus, participants were presented with two conditions, one identical to that of the first experiment and one with the reversed order of cue presentation.

Across experiments, we found behaviours being the most effective way of updating behaviour-based impressions. Moreover, behaviour-based impressions were updated equally by faces and voices. However, voice-based impressions showed resistance to behavioural information to a greater extent than face-based ones. These findings expand prior research on impression updating and highlight the importance of considering multi-modal cues to investigate the development of impressions over time.

15:00-15:30

The role of spontaneous ideological inferences in political polarization

Carsten Sander & Juliane Degner
Universität Hamburg

Research on person perception has revealed that people tend to attribute other people's behavior on stable person characteristics, even if it can just as well be explained by more malleable causes like situational factors or mental states. This tendency is known as the correspondence bias and may play an important role in the domain of political polarization. Specifically, people may attribute each others' behaviors to stable ideological dispositions (such as leftist, conservative, racist or feminist), while neglecting potential other causes and thereby impeding mutual understanding. However, it has not yet been investigated whether the correspondence bias occurs spontaneously and over a broad range of ideological dispositions. We present data from three studies using the probe recognition paradigm (Uleman et al., 1996). We show that various ideological dispositions are indeed spontaneously activated when reading behavioral descriptions and how this activation is affected by additional information on the behaviors' situational or mental state causes – that is to what extent the correspondence bias occurs. Furthermore we examine whether the correspondence bias is stronger if inferential rules pertaining to the respective behaviors and ideological dispositions are made more accessible. Taken together, this research might inspire new perspectives on understanding and eventually combating political polarization.

15:30-16:00

When the skinhead helps the elder, he's still caring: Stereotypes do not reliably guide spontaneous trait inferences from behavior

Jana Mangels & Juliane Degner
Universität Hamburg

When forming impressions of others, people regularly face a multitude of different, potentially contradicting, information. Studies have investigated inferences based on trait-ascriptions to others' faces (e.g., Todorov et al., 2015), their social category memberships (e.g., Macrae & Bodenhausen, 2000), snapshots of their behaviors (e.g., Ambady et al., 2000), behavioral descriptions (e.g., Uleman, Blader, et al., 2012), or other social cues. For the current research, two of these long-standing lines of research were of interest. First, a substantial amount of research on behavior-based impression formation, so-called spontaneous trait inferences (STIs) has demonstrated persistent and robust effects of people inferring others' traits from their behaviors (Bott et al., 2022). Second, there is a similarly large body of research documenting how social categorization and stereotyping impact social impression formation (e.g., Kunda & Spencer, 2003). Although both behavior-based and stereotype-based impressions have a long-standing tradition in social psychological research, both lines of research have developed surprisingly independent from each other – theoretically and empirically (e.g., Chen et al., 2022). Only a handful of available studies have combined these two lines of research,

demonstrating that stereotypes interact with inferences of congruent or incongruent traits implied by actors' behavior (e.g., when "The boy scout" versus "The punk" "pushes the toddler aside", the former would be less likely inferred to be anti-social than the latter; Wigboldus et al., 2003, p. 473). These studies are unanimously referenced as evidence that stereotypes can affect perceivers' spontaneous trait inferences from behavior (e.g., Uleman, Rim, et al., 2012). The findings are even more remarkable considering that the behavioral statements had been pretested to be univocal and unambiguous, unlike behavior that typically is investigated in research on stereotype effects in deliberate impressions.

However, what appears to be a consistent research finding on first sight reveals several inconsistencies at closer inspection: First, stereotype effects on STIs seem to shift unpredictably between response latencies and error rates. Second, when comparing effects to stereotype-neutral or stereotype-irrelevant baselines, it appears that sometimes, stereotype incongruency lead to reduced STI-effects; sometimes, stereotype congruency lead to increased STI-effects; and sometimes both effects occurred. Third, effects of stereotype congruency on STIs have been rather unstable in the sense of shifting alongside individual perceiver characteristics. Along with these mixed findings vary the assumptions about mechanisms driving stereotype effects on STIs.

The initial aim of our current research was, thus, to investigate these underlying mechanisms of stereotype congruency on trait inferences from behavior. We also aimed at increasing the generalizability of previous findings by employing a much larger stimulus set, including more behaviors, traits, and social categories, and by addressing some further methodological limitations of previous studies. All three studies employed a well-established paradigm to measure the occurrence of STIs, the probe recognition paradigm (Todd et al., 2011), in which we paired trait-implying behavioral statements with social category labels implying stereotypes about actors. For example, the statement "… picked up a stack of boxes like it was nothing" implied the trait strong, and was performed by "the bodybuilder" (stereotype congruent), "the old man" (stereotype incongruent), or "Randy" (stereotype neutral).

While we observed consistently large and robust effects for STIs from behavior in two initial studies (study 1: N = 230; study 2: N = 77), we did not observe conclusive evidence that stereotypes moderated these behavior-based inferences. Reconsidering the lack of consistency in the published literature – combined with our surprising results – we then investigated whether procedural characteristics of the experimental manipulation may account for the (non)occurrence of stereotype effects on STIs in our research. We thus ran a third study (N = 227) as a methodologically closer replication of previous research. Results did indeed demonstrate the hypothesized interaction effect of stereotype congruency and STIs, which replicated results of previous research as reported by the literature. This confirmed our suspicion that previous stereotype effects might be conditional upon procedural characteristics of the experimental paradigm (i.e., high repetition of behavioral statements alongside with high salience of the experimental manipulation of stereotype congruence), thus limiting their generalizability to impression formation in real life.

In summary, we believe our studies highlight the importance of replication studies and the need for careful consideration of experimental context, even if there seems to be a consistent field of research documenting an effect with various conceptual replications. In the present research, our initial aim to conduct a close replication and the resulting surprising (non-)effects only led us to reconsider potential experimental boundary conditions for the effect of stereotypes affecting STIs. Furthermore, we consider the results theoretically relevant, given that repetition and salience of social categories posed an essential condition for the occurrence of stereotype effects in our studies. This may further challenge our understanding of stereotypes as automatic inferential tools in person construal. We discuss how this research fits in the literature regarding the dominance of behavior-based versus stereotype-based inferences in (spontaneous) impression formation.

16:00-16:30

The many different approaches to person perceptions
Juliane Degner
Universität Hamburg

How do people form first impressions of others? There is a tremendous body of research investigating various different aspects of person perception, ranging from spontaneous impressions from faces, emotion recognition, snap judgments from behavior and trait inferences and correspondence biases, identity encoding and face recognition, individuation vs. categorization and stereotyping – to just name a few.
It seems that each domain has developed their own little universe of theories, research questions, empirical approaches and experimental paradigms; often even a set of preferable publication outlets. This large degree of separation is surprising given that these research domains not only share one overarching research question (i.e., What is the psychology of people perceiving people?), but also use theories with many similar postulates (e.g., regarding aspects of automatic vs. controlled processes).
The current talk reviews some of the research domains that fall into the broader category of person perception, taking stock of their theories, research questions, methods, and major findings. By trying to outline the similarities, overlaps and intersections of these domains, as well as their dissimilarities, discrepancies, and disputes, I hope to take the first steps into the direction of developing a comprehensive approach that may enhance theorizing and research and thus provide a better understanding of the psychology of person perception in the future.

Room 9: Information processing
Chair: Rita R. Silva

14:30-15:00

As expected? Context-dependent and Context-free Factors in Distribution Cognition
Jonas Ebert & Roland Deutsch
University of Wuerzburg

Understanding complex societal topics requires not only the processing of singular numerical values, but also the processing of whole distributions. In regards to income, for example, it is important to look at the whole distribution and not only at singular income values or the mean to understand issues like income inequality. Research however shows that although thinking about distributions (i.e., distribution cognition) is quite important it is often far from accurate and that these inaccuracies can lead to faulty decision making. As such, understanding the underpinnings of distribution cognition is an important task. While there is extant knowledge on several processes involved in distribution cognition, for example a bias towards linearity, others have received less attention. The present research focuses on the influence of expectations (i.e. prior knowledge or experiences) that have been shown to be important in many other areas of cognition.
To test the contribution of expectations to distribution cognition, we conducted three studies (one laboratory, two online) in which we sequentially presented subjects with distributions of 40 numerical values each. Afterwards, we asked our subjects to estimate the mean value of the four quarters of the distribution (e.g. the lowest 10 values, second-lowest 10, and so on). In two of these experiments, we

presented the numerical values of the distributions context-dependent in the form of variables like age or income on the profiles of fictitious people. In these experiments, we manipulated our subjects' expectations towards the relevant variable as well as the actually presented distribution. As expected, congruency between expectation and distribution resulted in an significant increase in accuracy of the perceived distribution form (i.e. perceived skew). Additional quantitative model testing evaluated different cognitive processes and revealed expectation as well as a bias towards linearity to be important factors in subjects' estimations. As an additional finding, we also observed positively skewed distributions to be perceived much more accurately than negatively skewed distributions especially in regards to distribution form. To contrast our context-dependent findings with estimations in a context-free setting we conducted a third experiment in which we presented subjects with only the numerical values of the distributions, without any label or context and no prior expectations towards the distributions. Quantitative model tests again revealed the importance of a bias towards linearity. In regards to negatively and positively skewed distributions we did not find differences in accuracy of distribution form but differences in overall estimation accuracy were highly significant.
Overall, the experiments suggest that prior expectation about the shape of a distribution is an important top-down factor when processing distributions in context-dependent settings. A bias towards linearity, on the other hand, seems to be relevant in context-dependent as well as in context-free settings. Furthermore, differences in the accuracy of estimations between positively and negatively skewed distributions seem to be context-dependent in regards to distribution form but not in regards to overall accuracy.

15:00-15:30

Social metacognition and pluralistic ignorance: Why my neighbor is prejudiced and loves chocolate cake

André Mata & Cristina Mendonça
University of Lisbon

Research on pluralistic ignorance, comparative biases, and the bias blindspot all point to the same conclusion: People tend to think that other people are more biased than they themselves are. In this talk, a socio-metacognitive model is presented that tries to make sense of this. It starts with a dual-process model of judgment and reasoning, with the following premises: 1) deliberation and intuition sometimes suggest different answers; 2) when that happens, because deliberation operates more slowly than intuition, by the time people come up with the deliberative response they have already considered the intuitive response; 3) because deliberative respondents share other people's intuition, they can infer how others think and alternative responses that others might give.
First, some evidence shall be presented to support this model, coming from studies on reasoning and moral judgment, in which participants 1) gave their own responses to moral and reasoning problems, 2) inferred how other people would respond to the same problems, and 3) indicated whether they themselves considered an alternative response. Results consistently show that, the more people felt conflicted when coming up with their responses, such that they felt tempted to give an alternative response, the more they think that other people will give the intuitive alternative response rather than their deliberative response.
The second part of the talk will focus on the implications of this model for pluralistic ignorance regarding prejudice, i.e., even though the large majority of people say (and most likely believe) that they are not prejudiced, they believe that most other people are. Here too there can be intra-psychic conflict: Namely, research shows that people who do not manifest prejudiced attitudes towards members of stigmatized groups may nevertheless have an initial prejudiced reaction (i.e., their implicit

attitude) towards those targets, but then they manage to suppress it. But because they felt how compelling their prejudiced gut reaction was, they infer that other people's explicit attitudes towards those groups and their members might be negative. We tested this hypothesis in several studies where we assessed participants' implicit/automatic and explicit/controlled attitudes towards members of different groups, and their inferences of what other people's explicit/controlled attitudes might be towards those targets. In several studies, using different target groups and different methods of attitudinal measurement, results show that the greater the conflict between participants' implicit and explicit attitudes, the less people project their explicit attitudes (which are usually positive) when inferring other people's explicit attitudes toward those groups, and the more they believe that other people's attitudes are more negative than theirs. Thus, this socio-metacognitive model accounts for the negative beliefs that people have concerning other people: People tend to project onto others their own implicit biases.

15:30-16:00

Evaluative effects of (in)congruent advice in a Repetition-induced Truth Effect paradigm

Anne Irena Weitzel & Christian Unkelbach
University of Cologne

The Repetition-induced Truth Effect describes people's tendency to believe repeated statements more than novel statements, as studied by a broad corpus of literature (Unkelbach et al., 2019; for a meta-analysis, see Dechêne et al., 2010). The effect is robust even when participants receive valid advice by so-called advisors at the time of judgement (Unkelbach & Greifeneder, 2018). We extended this paradigm consisting of a presentation phase (participants see randomly sampled, difficult trivia statements) and a judgment phase (participants judge both the previously seen and new statements as either TRUE or FALSE) with advisors depicted with neutral cartoon faces and names, differentiating between congruent advisors (i.e., claiming repeated statements to be TRUE; new statements to be FALSE) and incongruent advisors (i.e., claiming repeated statements to be FALSE; new statements to be TRUE). We predicted that incongruent advisors are perceived as less likeable, less trustworthy, and less intelligent. This follows from the referential, coherence-based approach to the Repetition-induced Truth Effect by Unkelbach and Rom (2017): For each statement, a network of its elements is formed upon first presentation, and an advisor appearing alongside a statement may be integrated as a coherent element of this network. However, in the case of an incongruent advisor claiming a repeated statement to be FALSE in the judgement phase, incoherence with the network already formed during the preceding presentation phase should arise. To resolve this incoherence, devaluation of the incongruent advice should follow. A series of five studies (total N = 1,446) showed that this evaluative effect holds for advisors giving a subjective estimation of confidence in their advice (Experiment 1) as well as advisors labelled with an objective advice validity (Experiment 2) and male advisors (Experiment 3) as well as female advisors (Experiment 4). Furthermore, we verified our theory-driven assumption that this differential evaluative effect of (in)congruency is mainly due to advisors' advice to repeated statements, but not new statements (Experiments 3-4). In Experiment 5, we extended the evidence for this devaluation effect on incongruent advisors with a behavioral DV: When given the choice, participants significantly preferred advice from congruent advisors. We discuss implications of these evaluative and behavioral effects (e.g., for combatting fake news).

16:00-16:30

Who's the source? Perceived trustworthiness of information sources and illusions of truth and illusions of falseness

Rita R. Silva & Margarida V. Garrido
ISCTE - University Institute of Lisbon

People perceive information they repeatedly encounter as more likely to be true than information they face for the first time, an effect known as repetition-based illusions of truth. In addition, people reject claims contradicting previous information, giving rise to illusions of falseness associated with contradiction. These effects pose a challenge to the attempts to update or correct false information encoded before and contribute to the continuous dissemination of misinformation in society. In this work, we test whether cues about the trustworthiness of information sources moderate the effects of repetition and contradiction on the truth-value attributed to information. A source perceived as trustworthy is expected to behave benevolently, even if there is opportunity to take advantage and deceive others. Trustworthiness enables cooperative and rewarding relationships in situations where uncertainty is high, signaling that the information provided can be trusted without much analysis. In contrast, perceiving information sources as untrustworthy activates a state of distrust and increases scrutiny of the information received. We hypothesized that messages containing information attesting to the trustworthiness of the sources would be more successful in the correction of misinformation and acceptance of the true versions of inaccurate facts transmitted before. This is because feelings of trustworthiness will help to counteract the discomfort caused by the cognitive difficulty experienced when facing messages contradicting previous information. This will make correction messages contradicting previous misinformation more acceptable and capable of substituting the misleading facts in individuals' memory and beliefs. On the other hand, providing evidence about the untrustworthiness of sources will cause distrust and suspicion about the messages these sources transmit, which may reduce the acceptability of mere repetitions of misleading facts spread before. These hypotheses were tested in 4 studies (overall N = 614). We manipulated trustworthiness through the facial features of the sources presenting statements that either repeated, contradicted, or contained completely new information regarding messages presented previously. We asked participants to make true-false judgments of the statements presented by the trustworthy and untrustworthy sources. Overall, statements presented by trustworthy sources were significantly more likely to be judged true than statements by untrustworthy sources. We also found the expected illusions of truth associated with repetition and illusions of falseness associated with contradictory statements. However, we also found interactions between the two factors (source and type of statement), as the effect associated with source trustworthiness was larger for repeated statements, followed by new statements, and finally, contradictory statements, for which we found no differences as a function of source trustworthiness. These results suggest that although source trustworthiness does influence the truth-value attributed to the information individuals encounter, its effects are not consistent across all types of messages. We discuss the repercussions of our findings for misinformation correction strategies.

Room 6: Stereotypes and prejudice
Chair: Marek Drogosz

17:00-17:30

Combining social concepts: The case of age and sexual orientation categories

Rosandra Coladonato[1], Vincent Yzerbyt[2], & Andrea Carnaghi[1]
[1]*University of Trieste,* [2]*Université Catholique de Louvain*

Recent works showed that Gay men are stereotyped as young by default, and Elderly men as heterosexual by default. Drawn on this evidence, Coladonato et al.(2022) hypothesized that combining Gay with Elderly men would give raise to an atypical subtype, since the age category is at odds with the representation of Gay men as young. In line with this premise, authors found that Elderly gay men, as well as further atypical subtypes of Elderly men (e.g.,Elderly athlete men), were stereotyped as less old and younger than Elderly men. While previous studies assumed that Elderly gay men constitute an atypical subtype, this project aimed at directly testing the perceived (a)typicality of Elderly gay men with respect to age (Study1) and SO categories (Study2). We put forward that Elderly gay men would be an atypical case with respect to both Elderly and Gay men. In Study3 we tested whether the stereotypical features associated with Elderly gay men are unique to this subtype, and do not overlap those associated with its constituent categories (i.e.,Elderly and Gay men).
In Study1,participants were presented with 6 groups (Heterosexual, Gay, Heterosexual elderly, Heterosexual young, Gay elderly, Gay young men), one at a time and in a random order, and asked to report the extent to which that group was typical of elderly and young men by means of a 7-point scale (1=not at all typical,7=very typical). Compared to Heterosexual men perceived as equally typical of young and elderly men, Heterosexuals elderly men were perceived as more typical of elderly men, and Heterosexuals young men were perceived as more typical of young men. In contrast, Gay and Gay young men were equally perceived as more typical of young than elderly men. Gay elderly men were perceived as less typical of young and more typical of elderly men than Gay men. Importantly, Gay elderly men were perceived as less typical of elderly men than Heterosexual elderly men.
In Study2, participants were presented with 6 groups (Elderly, Young, Elderly heterosexual, Elderly gay, Young heterosexual, Young gay men) and asked to report the extent to which that group was typical of heterosexual and gay men (1=not at all typical,7=very typical). Compared to Young men, Young heterosexual men and Young gay men came across as more typical of heterosexual and more typical of gay men, respectively. In contrast, Elderly men and Elderly heterosexual men were both equally perceived as more typical of heterosexual than of gay men. Compared to Elderly men, Elderly gay men were perceived as less typical of heterosexual and more typical of gay men.
These findings suggest that Elderly gay men are the only subtype issued from the age and sexual orientation combination that is cognitively invisible, as they are neither typical of Gay, prototyped as young, nor of Elderly men, prototyped as heterosexual. In Study3 we examined open-ended stereotype contents of both discrete and intersectional categories referring to age and SO. We are working on the analysis of these data. In line with Kunda et al.(1990), we hypothesize that the intersectional categories would display unique stereotypical features that are not the result of simply adding the stereotypical features of the discrete constituent categories. Also, we predict that the number of unique

stereotypical features listed for the Elderly gay men will be higher than the number of features listed for the other intersectional categories (e.g.,Elderly heterosexual men).

17:30-18:00

Dimensions of spontaneous social categorization

Felicitas Flade & Roland Imhoff
University of Mainz

Imagine passing through a crowded station hall and observing the people within it. Curiously, we still do not really know along which categories you would spontaneously sort them. Gender, race and age are often described as the most basic, "primitive" social categories. However, this assumption has never been tested directly. This may be partly due to the paradigms and methods available to social categorization research. Most of these require that specific category labels are used, or can only handle stimuli that differ along one or two category dimensions. Suggesting such a limited range of categories may determine the category dimensions along which category use can be measured.
To overcome this limitation, we aquired similarity data from N = 6500 US Americans by means of the Spatial Arrangement Method. Participants sorted a random subset of 2222 portraits that followed the demographic distribution of the 1990 US Census. Multidimensional scaling resulted in a total of 6 dimensions, which we used to predict the ratings of the same portraits (N = 1700) on a total of 34 rating dimensions. The first three of these dimensions were indeed gender, race, and age. However, the question remained whether these were just similarity dimensions or indicated social categorization proper. We investigated this by computing metacontrast ratios along these dimensions and using the binary portrait similarities to predict speaker confusion frequencies in the "Who said what?"-Paradigm of social categorization (N = 800).
Results are discussed with respect to the relationship between similarity, metacontrast and social categories.

18:00-18:30

Why are stereotypes negative

Christian Unkelbach[1], Anne Weitzel[1] & Hans Alves[2]
[1]*University of Cologne,* [2]*University of Bochum*

Most textbooks state that stereotypes about groups may be positive or negative; for example, classic stereotypes are that Asians are bad drivers, but good at math. However, most people associate stereotypes with negative content and it seems obvious that stereotypes are negative. Surprisingly, there is no social psychological theory that explains why stereotypes are more likely to be negative than positive. While this might partially result from the terminological confusion of stereotypes and prejudice, the Evaluation Information Ecology (EvIE; Unkelbach et al., 2019) provides a theoretical answer to this so far neglected phenomenon. The EvIE states that positive information is generally more frequent, but negative information is more divers. Because to be useful, stereotypes should provide information that distinguishes groups from each other, together with the constraints of the evaluative ecology, this information is more likely to be negative than positive. Thus, just because of the presumed predominantly positive evaluative ecology, the resulting stereotypes are negative.
We tested this assumption in four studies. First, we freely sampled stereotypes about groups and found indeed that they more likely to be negative than positive. Second, we provided people with groups (based on Koch et al., 2016) and asked about the defining attributes of these groups. Again,

participants generate more negative than positive attributes. Finally, we tested the underlying mechanism experimentally by varying the ecology. Participants learned about two alien tribes that showed several traits; critically, in one condition, the traits followed a standard ecology (i.e., positive information frequent, negative information more diverse), while the other condition presented a reverse ecology (i.e., negative information frequent, positive information more diverse). Both on general evaluations as on specific predictions of behavior, participants used the information that distinguished the groups. Accordingly, in a predominantly positive ecology, the emerging stereotypes about the alien tribes were negative, but in a predominantly negative ecology, the stereotypes were positive. We discuss the implications for this paradoxical effect within the broader concept of intergroup biases.

18:30-19:00

Shoot or save! The dynamics of critical decisions toward other ethnic group members

Marek Drogosz, Krzysztof Kruszewski, & Sviatoslav Piven
SWPS University of Social Sciences and Humanities

In the two computerized experiments the Mouse Tracker software was used to record and analize the dynamics of decision making in situations in which observed persons (both in-group and out-group members represented by pictures of faces of people from different ethnic groups) are potentially dangerous or endangered.
In the experiment 1 modified Shooter's Task (ST) was applied. Two pictures of different ethnic group members were shown simultaneously on the two sides of screen; one of them with a gun picture right below. The participants' task was to use mouse to indicate more dangerous person as fast as possible. The results of the experiment 1 have shown that the main effects of the dynamics of responses toward different ethnic group members were only on trend level but the interactions with participants' gender and believes in the dangerous world were significant.
In the experiment 2 original Fireman's Task (based on ST task) was applied. One of the two different ethnic faces picture were presented with fire right below. The participants' task was to use mouse to indicate which of two persons should be saved first. The results of the experiment 2 have shown that both reaction times and mouse trajectories were significantly different for pictures of White vs. Black faces, White vs. Asian faces, and male vs. female faces.
The results of both studies suggest that the analyses of mouse movement trajectories might be a promising tool to broaden the knowledge on social cognition.

Room 7: Judgment
Chair: Jochim Hansen

17:00-17:30

Why do people avoid extreme evaluations at the beginning? A critical test of the calibration hypothesis

Tabea-Jeannine Zorn & Christian Unkelbach
University of Cologne

In everyday life, people frequently encounter serial information. For example, teachers see students' oral exams serially, human resources representatives see job applicants serially, and consumers are confronted with products serially. Whenever people evaluate serial stimuli, serial position effects occur. One finding in this area is that stimuli or performances at the beginning of a series receive less extreme ratings compared to the end. Unkelbach and Memmert (2014) suggested a motivational explanation and called it a calibration effect: people withhold extreme judgments at the beginning because they want to preserve their judgmental degrees of freedom to avoid consistency violations throughout the series.

In two studies, we directly tested the hypothesis that these calibration effects indeed occur because people want to preserve degrees of freedom. Participants always saw two series of nine consumer products each. Products were presented with either low, medium, or high prices. We varied whether participants saw a high or a low price for the first product in the series (Position 1). They got green flags to mark extremely low-priced products and red flags to mark extremely high-priced products. For each product, they should decide whether to set a flag and indicate whether they think its price is low, medium, or high for the respective product category.

In Study 1 (N = 385), we manipulated how many extreme ratings participants were allowed to make (i.e., how many flags they got) in each series of nine products: two, four, six or eight. We thus directly operationalized the degrees of freedom by the green flags [red flags] participants could set on extremely low-priced [high-priced] products. Importantly, they did not need to use the flags; for example, they could also set only two flags total in the six-flag condition. As hypothesized, we found that participants in the two-flag condition less often chose to make an extreme judgment (i.e., set a flag) at Position 1 than participants in the four-flag (six-flag, eight-flag) conditions. The pattern indicated a linear contrast for the frequency of extreme judgments at Position 1 depending on the number of flags: the more flags (i.e., extreme judgments = degrees of freedom) participants got to set at a maximum for a series of nine products, the less need they had to avoid these extreme judgments at Position 1; thus, the more often they chose to set a flag at Position 1. This does not simply follow from probabilistic models, as participants did not have to use all flags they got.

In Study 2 (N = 392), we only varied between-participants whether they got two or eight flags. Different from Study 1, they either got only green or only red flags (between-participants). Confirming our hypothesis, we found that participants only set more flags in the eight-flag than in the two-flag condition if their flag color (i.e., either green or red) was congruent with the price of the product at Position 1 (i.e., either cheap or expensive). We thereby showed that this is more than a mere affordance effect: participants do not randomly set more flags just because more flags are available.

Besides, the results also replicated the basic calibration effect pattern for the domain of product prices: participants rated products at later positions more extreme (i.e., cheaper/more expensive) compared to Position 1.

17:30-18:00

The Impact of Ambiguity on Novelty Avoidance in Accountable and Private Choices

Iris A. M. Verpaalen, Simone Ritter, Madelon van Hooff, & Rob Holland
Radboud University

People often are weary of new initiatives. Those who react most negatively to innovations also have higher ambiguity aversion: the preference of certain outcomes over unknown risks. Indeed, an unfamiliar, novel option is hard to predict, so its perceived ambiguity may underlie rejection responses. Yet, this mechanism has not been tested. The first aim of this study was thus to test the hypothesis that people avoid novel choice options based on their higher perceived uncertainty.
Furthermore, ambiguity aversion is understood as an individual phenomenon, but it increases when participants feel accountable to others for their decisions. Two mechanisms could underlie this intensification in social settings: the individual may find a public decision more important and thus become more cautious, wanting certainty; or the individual may conform to the perceived social norm, which was always pro-certainty in previous studies. The second aim of the current study was to disentangle these potential mechanisms and test them as explanations of novelty avoidance. In two within-subjects experiments we manipulated relevant aspects. First, the importance of the choices was varied. We hypothesized that high outcome relevance would result in more novelty avoidance compared to low outcome relevance. Second, participants made choices privately or were held accountable to different norms. It was predicted that accountable choice (vs. private choice) would lead to stronger novelty avoidance when they did not know the norm, but to weaker novelty avoidance with a pro-novelty norm.
The two real-choice experiments were conducted online. The participants (N=39; N=40) could earn money for charities of their choice by doing two extra tasks, a short one for a small donation in a domain deemed not important by the participant (low outcome relevance), and a long task for a large donation in an important domain (high outcome relevance). Participants made binary choices between novel and familiar charities to earn money for. Two choices were selected by chance for the tasks. Half of the choices remained private; the other half were seen by a research assistant with whom the participant had a short phone call. In experiment 1, the research assistant's opinion was unknown, in experiment 2, the opinion was pro-novelty. After the choices, participants indicated their fear of negative evaluations by the person on the call, and per charity their familiarity and certainty that a donation would be spent well.
Mixed-effect analyses confirmed the hypothesis that participants preferred donating to familiar over novel charities (i.e., showed novelty avoidance), driven by the relative certainty about these charities. Contrasting our hypothesis, outcome relevance did not affect choices. In experiment 1, as hypothesized, participants made more novelty-avoidant decisions in accountable choices (to someone with an unknown opinion). In experiment 2, where the opinion was pro-novelty, this pattern shifted and the difference between private and accountable choices disappeared. Exploratory analyses showed that participants with higher fear of negative evaluations did become less novelty avoidant in accountable choices.
This study shows that novelty avoidance is partly formed by ambiguity aversion. Besides, it clarifies that this choice bias toward certainty and familiarity may be influenced by anticipated social evaluations and is not determined by cautiousness and outcome relevance alone.

18:00-18:30

Abstraction triggers public self-awareness
Jochim Hansen, Nicole Neumeier, & Magdalena Höller
Paris Lodron University Salzburg

Construal level theory suggests that abstraction fulfills the important function of traversing psychological distance (which includes traversing social distance). Therefore, abstraction may cause a third-person view of oneself. Accordingly, we hypothesized that abstraction increases public self-awareness. Three studies (total N = 384) tested this idea. In a pilot study, abstraction and self-awareness were measured; a correlation between abstraction and public self-awareness but not private self-awareness was found. In Studies 1 and 2, abstraction was manipulated experimentally and public and private self-awareness were measured. In both studies, the level of abstraction increased the level of public self-awareness but not of private self-awareness. Study 2 additionally investigated downstream consequences, namely the effect on social anxiety and embarrassment in a situation in which participants were asked to recited a poem. It was demonstrated that abstraction indirectly increased social anxiety and embarrassment via public self-awareness. Implications of the findings will be discussed.

Room 8: Approach-Avoidance
Chair: Yoann Julliard

17:00-17:30

A Ternary Model of Basic Goal Types: Approaching Gains, Avoiding Losses, and Maintaining what We Have
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Understanding how people maintain what they have is of ultimate importance. On the individual level, maintenance goals are essential to both mental and physical wellbeing, while on the societal level, they are vital for pro-social and pro-environmental behavior. The current paper reviews existing predominant dichotomies between approach and avoidance goals and between promotion and prevention goals in an effort to provide an integrative theoretical framework of basic goal types. We propose a refined definition of the underlying mechanistic distinction between approach and avoidance, and discuss its relationship to the promotion-prevention goal dichotomy. In doing so, our aim is to outline the boundaries of the current investigation: We carefully distinguish differences in basic goal mechanisms from adjunct goal characteristics that go beyond such mechanistic differences. Following this rationale, we arrive at a mechanistic model with three broad goal categories, distinguishing the pursuit of maintenance goals from both approach goals and avoidance goals. The maintenance goal category differs from the other two categories in that it is not concerned with improving states or preventing them from becoming worse, but rather with stabilizing current satisfactory states (e.g., maintaining relationships). Accordingly, while approach is mechanistically driven by a gap between desired and current states, and avoidance by a gap between desired and anticipated states, maintenance lacks both types of gaps. We contrast our account with alternative accounts wherein maintenance is sorted under progress goals or under prevention goals, we detail ways to empirically test our propositions on the nature of maintenance, and we discuss the advantages of our theoretical framework for theory and empirical research.

17:30-18:00

Hold it Right There! An Examination of the Approach-Aversion Effect in Virtual Reality

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[1]*Université Grenoble Alpes,* [2]*Université Paris Cité,* [3]*Université de Bordeaux*

Affective processes play an important role in the regulation of interpersonal distance as social interactions unfold. Indeed, research shows that approaching (vs. avoiding) others leads to more favorable evaluations (Slepian et al., 2012). If the positive effect of approach on evaluations provides avenues for intervention (e.g., prejudice reduction), looming stimuli may sometimes acquire a negative valence as compared to static ones, an effect coined approach aversion (Hsee et al., 2014). A potential explanation highlights the threatening nature of approaching stimuli that may prompt some action being taken (De Haan et al., 2016). However, previous research reveals contradictory findings (Hsee et al., 2014; Mühlberger et al., 2018) and has some methodological issues (i.e., movement ambiguity, lack of mundane realism) questioning the explanation as well as the generalizability of the approach-aversion effect. More specifically, it is unclear whether this effect a) generalizes to non-ambiguous manipulations, b) generalizes to everyday settings, and c) depends on stimulus valence. The present research aimed to fill this gap of equivocal findings by adequately addressing these issues. Across three well-powered preregistered experiments conducted in Virtual Reality (VR), we tested the reasoning that, in the context of everyday social interactions, facing an approaching individual may be threatening and thus yield an approach-aversion effect. If being approached is threatening, approaching individuals should be evaluated more negatively than static ones, and this effect should be stronger for menacing target individuals.
In the three experiments (NTotal = 450), participants encountered 16 virtual individuals at a bus stop for which they gave their impression on a Likert scale. Half of these individuals approached participants, while the other half stood statically. Orthogonally, we manipulated the threatening nature of individuals via their emotional facial expressions (NExp.1 = 133), their group membership (NExp.2 = 100), and the agency of their movements (NExp.3 = 217).
Findings support the approach aversion effect: Participants evaluated approaching individuals more negatively than static ones (η^2Exp.1= .32; η^2Exp.2= .24; η^2Exp.3= .17; η^2Integrative data analysis= .24). Nevertheless, the findings do not unequivocally support the threat hypothesis. Indeed, contrary to what was predicted, the approach-aversion effect was less pronounced for frowning than for smiling (η^2Exp.1= .08) and did not depend on group membership (η^2Exp.2= .00). However, as hypothesised, the effect is attenuated when the self (vs. the target) initiates the movement (η^2Exp.3= .04). Therefore, the current work brings convergent evidence that being approached could be threatening.

18:00-18:30

Considering motivational conflicts in context: The relative difficulty of Approach-Approach and Avoidance-Avoidance conflicts is context-dependent

Maya Enisman & Tali Kleiman
The Hebrew University of Jerusalem

Would you rather be rich or smart? poor or stupid? These examples correspond to different conflict types in Lewin's (1931) and Miller's (1944) seminal conceptualization of motivational conflicts. The first question is an example of an Approach-Approach conflict (henceforth, AP-AP), a conflict between two positive options, each of which one would want to approach. The second question illustrates an

Avoidance-Avoidance conflict (AV-AV), a conflict between two negative options, both of which one would want to avoid. Lewin and Miller depicted motivational conflicts as psychological force-fields, such that each option in an AP-AP conflict pulls the person towards it and each option in an AV-AV conflict pushes the person away from it. The closer the person gets to any of the options, the tendency it elicits (to either approach or to avoid) becomes stronger. In AP-AP conflicts, getting closer to either positive option strengthens the tendency to approach it. This process puts the person in an unstable equilibrium, and the conflict is relatively easily resolved. Conversely, in AV-AV conflicts, getting closer to either negative option strengthens the tendency to avoid it. As a result, the person oscillates between the options and is trapped in a stable equilibrium, unable to resolve the conflict. The theory thus predicts a difference in relative difficulty between the two conflict types, such that AV-AV conflicts are more difficult to resolve compared to AP-AP ones. Since the theory's conceptualization, it was supported by abundant empirical findings, demonstrating that people take longer to resolve AV-AV vs. AP-AP conflicts, and judge them to be more difficult (e.g., Arkoff, 1957; Barker, 1942; Heitmann & Deutsch, 2018; Terry, 2010).

Thus, previous research followed the theory's original prediction of a difficulty difference between AV-AV and AP-AP conflicts as a main effect. However, conflicts are rarely if ever resolved in a contextual void. Here, we examine the moderating role of context in the relative difficulty of motivational conflicts.

Context-dependency is one of the most basic principles in social cognition (Bless et al., 2003; Schwarz & Sudman, 1992). Contextual variables alter the way a situation is perceived, processed, and evaluated because different contextual factors highlight different aspects of the situation (Shafir, 1993). The compatibility between the conflict and the context in which it is resolved is an important factor upon which contextual influence relies (Shafir, 1995; Slovic, 1995; Slovic et al., 1990). Such compatibility can influence difficulty, as it creates ease and flow in the process of resolving the conflict, as opposed to incompatibility, which could hinder conflict resolution and increase its difficulty (e.g., Alter & Oppenheimer, 2009; Kornblum et al., 1990; Schwarz et al., 1991). For example, affective priming studies show that people respond faster to positive targets when presented in the context of positive vs. negative primes, and vice versa for negative targets (e.g., Klauer, 1997; Klauer et al., 2009; Scherer & Lambert, 2009).

In the present research, we suggest that the relative difference in the difficulty of resolving AV-AV vs. AP-AP conflicts is context-dependent. Specifically, we propose that this difference is a function of the compatibility between the conflict and the affect elicited by the context. Affect is "the superordinate category for valenced states" (Gross, 1998, p. 273), and motivational conflicts are inherently affective, as by definition they place the individual in between two options which both have either positive (AP-AP conflicts) or negative (AV-AV conflicts) valence. Furthermore, individuals interpret their experiences according to the norms they apply to them (Norm Theory; Kahneman & D. T. Miller, 1986). Contextual affect can set such a norm by eliciting certain expectations, and promoting specific interpretations of the situation. Norm Theory's perspective thus also suggests that AP-AP conflicts should be perceived as normative within the positive expectations elicited by positive affect, whereas AV-AV conflicts should be perceived as normative within the negative expectations elicited by negative affect.

Even though previous research did not manipulate affect, we suggest that the affective context was generally positive, as could be explained by positivity offset (Cacioppo & Berntson, 1994; Joseph et al., 2020). Accordingly, previous literature only examined motivational conflicts in contexts compatible with AP-AP conflicts. When the context was incompatible with the conflict type, as in AV-AV conflicts, resolving the conflict was respectively more difficult. When the context would be compatible with AV-AV conflicts (within a negative affective context), the difference in relative difficulty between motivational conflicts should be attenuated or even eliminated.

In six studies, five experimental (N = 1,153) and one correlational (N = 213), we show that AV-AV conflicts are more difficult to resolve compared to AP-AP conflicts only in a positive, but not in a

negative, contextual affect. In Studies 1-3, we presented participants with hypothetical conflicts between positive personal traits (e.g., being rich or smart) or negative personal traits (being poor or stupid), within an either positive or negative contextual affect, manipulated using affect-inducing images (IAPS, Lang et al., 1997). We found that in a positive contextual affect, AV-AV conflicts took longer and were experienced as more difficult to resolve compared to AP-AP conflicts, whereas in a negative contextual affect, no difference between the two types of conflict was found. This pattern of results was robust across a different set of stimuli (Study 4, pre-registered). When no contextual affect was induced (i.e., "neutral" contextual affect), we found the classic difficulty difference between conflict types, in similar to when inducing positive affect, and unlike when inducing negative affect. Thus, we replicated previous research which did not use affect-inducing manipulations, demonstrating that the context in which motivational conflicts were tested thus far was compatible with AP-AP conflicts (Study 5, pre-registered). Going beyond manipulated affect, we examined the compatibility between chronic affect and conflict type, by measuring individual differences in depression levels (DASS-21, Lovibond & Lovibond, 1995), showing that the greater the depression level, the smaller the difference in relative difficulty between AV-AV and AP-AP conflicts (Study 6).
Taken together, whereas the classic theory of motivational conflicts postulated that the higher difficulty of AV-AV vs. AP-AP conflicts as a general law for human behavior, we suggest that the relative difficulty of motivational conflicts is context-dependent. Under some circumstances, choosing the lesser of two evils could be as easy (or difficult) as choosing the better of two goods.

18:30-19:00

Can we measure approach/avoidance toward stimuli that are not instrumental?

Yoann Julliard[1], Cédric Batailler[1], Marine Rougier[2], & Dominique Muller[1]
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Approach/avoidance is a basic behavior of organisms and is an important part of how they respond to stimuli in their environment. Thus, being able to capture—at list a part of—people's tendency to approach or to avoid stimuli would be an important scientific advancement, both in terms of the underlying mechanisms comprehension and in terms of applied research. To measure people's approach/avoidance tendencies toward stimuli researchers developed computerized tasks (e.g., Chen & Bargh, 1999). Often, in these tasks participants have either to approach positive stimuli and to avoid negative ones—a condition in which they are fast—or to avoid positive stimuli and to approach negative ones—a condition in which they are slower. We label this kind of task "evaluative tasks", because participants have first to evaluate whether the stimulus is positive or negative before deciding to perform an approach or avoidance behavior. However, one could ask whether it is necessary that participants first evaluate the valence of stimuli to observe a facilitation or an inhibition of approach/avoidance behaviors toward positive/negative stimuli. On this issue, diverging conclusions were reached by meta-analyses (Laham et al., 2015; Phaf et al., 2014). In this work, we report new data suggesting that approach/avoidance behaviors are reactivated—and can be measured—even in a non-evaluative task.
To do so, we designed a new procedure based on the Visual Approach/Avoidance by the Self Task (Rougier et al., 2018). In this new procedure, participants were primed with a positive or negative stimulus and had to approach or to avoid depending on a neutral target (i.e., a square or a diamond). Accordingly, this procedure did not require participants to evaluate the valence of the stimulus. Yet, through seven experiments we consistently observed faster responses to approach the target after a positive prime and to avoid the target after a negative prime vs. slower responses to avoid the target after a positive prime and to approach the target after a negative prime (i.e., compatibility effect). We

first tested this effect in a pilot lab experiment and in two preregistered replications (in the lab and online), yielding a meta-analytic effect size of dz = 0.66, 95% CI [0.46, 0.85]. Then, we tested the robustness of the effect to various experimental manipulations throughout four preregistered experiments.
In two experiments we diminished the evaluative salience by reducing the proportion of valenced primes to respectively 50% and 25% of the primes (see Everaert et al., 2011). We still observed compatibility effects in these two experiments, respectively t(290) = 9.082, p <.001, dz = 0.52, and t(339) = 4.445, p <.001, dz = 0.23. We also conducted an experiment in which we omitted the instruction to "ignore the word" presented before the geometric shape (see Duscherer et al., 2008). In this experiment, we also observed a significant compatibility effect, t(109) = 3.781, p <.001, dz = 0.35. In a last experiment, we asked participants to keep a mental tally of prime words presented in grey ink to encourage them categorizing stimuli on their color dimension instead of their valence. As previously, we observed a significant compatibility effect in this experiment, t(108) = 3.287, p = .001, dz = 0.39. Taken together, these experiments suggest that approach/avoidance behaviors toward stimuli can be reactivated and measured even in a non-evaluative task.

Room 9: Self-regulation

Chair: Alessandro Sparacio

17:00-17:30

Development and Validation of the Social Thermoregulation, Risk Avoidance, and Eating Questionnaire

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Research suggests that environmental contexts can shape personality. But environmental factors crucial to survival have remained unexplored and could potentially impact people's personality and the way they form and maintain relationships. In the course of evolution, for humans, like other animals, immediate survival requires coping with fluctuating temperatures, various risks, and food scarcity. Coping with these concerns may play an important role in shaping personality (see e.g., IJzerman et al., 2015). The higher the degree of social satisfaction of these needs, the lower the metabolic costs (Beckes & Coan, 2011). But how environmental factors crucial to survival and the degree to which other people help cope with those factors – with the exception of Vergara et al. (2019, STRAQ-1) and Wei et al. (2017) – have been relatively unexplored in understanding personality. To fill this gap, we develop and validate the Social Thermoregulation, Risk Avoidance, and Eating Questionnaire (STRAEQ-2) via three studies, one of which a multi-site study at 141 laboratories in 50 countries. The main goal of this project is thus to assess individual differences in three core survival needs (Temperature Regulation, Risk Avoidance, and Food Intake) and how people rely on themselves versus others to regulate them.
A priori, we expected each survival need to be divided into 4 sub-dimensions: (1) sensitivity to the particular survival need (e.g., sensitivity to temperature changes in one's body), (2) solitary regulation of the need (e.g., preference for regulating temperature alone), (3) desire to socially regulate the need (e.g., preference for regulating temperature with other people), and (4) confidence in others to help

in coping with the need (e.g., being confident that someone would be willing to warm one up if needed). Importantly, the degree to which people desire to regulate survival needs socially with the help of trusted others is very likely to be also relevant for forming and maintaining social relationships and for people's tendencies to open up to others. We thus expected the STRAEQ-2 to be linked to differences in adult attachment.
To increase the probability that the scale has strong validity across countries, we used a bottom-up method to generate the items of the scale: In Study 1, we provided our collaborators with a description for each of the 3 constructs as well as their four subdimensions (with a total of 12 constructs each) with some example items. In total 53 laboratories from 32 countries generated 737 items that they deemed relevant to their culture. In Study 2, to reduce the number of items to be included in the main study we constituted a culturally and geographically diverse committee of 8 members from all populated continents to rate how the items were representative of their respective theoretical constructs (face validity). Project leads selected the 10 items with the highest means and lowest standard deviations per subscale and replaced similar items (~5 per subscale) to retain 120 items in total. In Study 3 (the main, multisite study at 141 laboratories sites in 50 countries; N=12,215), participants assessed the 120 items of the STRAEQ-2 and other well-known questionnaires in the scale's nomological network - for example, the Big Five (Gow, et al., 2005) and the Experience in Close Relationships Relationship Structures (Fraley, et al., 2000) - to validate the STRAEQ-2.

To find the best model and theoretically most parsimonious structure, we split the dataset into an exploratory dataset (⅔ of the total) and a confirmatory dataset (⅓ of the total). Using the exploratory dataset, we compared our a priori structure to alternative ones through iterative statistical analyses (EFA, CFA, internal consistency, polytomous IRT, measurement invariance, and correlations in the nomological network). In the exploratory data, we found our a priori structure to provide a good fit (CFI = .938, TLI = .932, RMSEA = .033, 90% CI [.032, .033]) and an acceptable internal validity (all αs and ωs >.70). We also expected and found meaningful and large correlations in the nomological network concerning attachment (e.g., for the thermoregulation need, using structural equation modeling, we found that confidence in others to thermoregulate is negatively linked to partner attachment anxiety, r = -.49, 95% CI [-.55, -.44], and avoidance, r = -.50, 95% CI [-.55, -.45]. In addition, partner attachment anxiety is positively linked to sensitivity to temperature, r = .17, 95% CI [.13, .21], and the desire to socially regulate temperature, r = .34, 95% CI [.29, .39], all ps <.001). We are currently finishing the pre-registration before running the confirmatory phase of the analysis. At the conference, we will present both the exploratory and confirmatory results.
The project will provide a validated scale to account for individual differences in relationship-relevant needs (the nomological network of the scale will include measures such as relationship-specific attachment or social network index). The scale will also help us to understand if and how self-report relates to temperature changes in people's bodies, as the scale is administered in multiple countries around the world in different climatic regions. Finally, the scale offers opportunities for people to self-report on threats to their survival and wellbeing and will help researchers identify how relationships can help people cope with these threats.

Keywords
Personality, Environmental Demands, Data-Driven Research, Preregistration

17:30-18:00

How to feel that you are moving forward? The role of Explicated Counterfactual Effectiveness Information

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Theories on self-regulation suggest that persistence on goals increases when the progress is clear and when actions seem effective. We recently found that indeed, people invest less effort when they have no clear indication on their task progress (Katzir et al., 2020, Cognition). Lacking indication on progress may explain why people struggle with persisting on prevention goals (e.g., preventing illness or global warming), especially when such goals incur immediate personal costs. That is, the pursuit of such goals lacks one of the hallmarks of motivation – perceiving one's actions as effective and impactful. The COVID-19 pandemic presented exactly this difficulty, as numbers of infected people continued to rise despite the public's efforts to adhere to preventive measures. Behaviors aimed at counteracting climate change – such as recycling and conserving energy – present a similar difficulty, as these behaviors are personally costly, yet efforts often seem futile as global temperature continues to rise, and pollution increases. I study ways to enhance motivation on prevention goals by providing Explicated Counterfactual Effectiveness Information (ECEI) – information that makes the effectiveness of one's efforts visible. We recently tested this new approach in the context of infectious disease prevention. In a representative sample from Israel (N = 600), collected online during the first outbreak of the pandemic, we found that compared to control conditions in which information on only actual infection cases was presented, ECEI (i.e., counterfactual information on the number of COVID-19 infections that have been averted due to people's preventive behaviors) enhances the perceived effectiveness of following the guidelines, which, in turn, enhances perceived importance and intention of doing so (e.g., intention to restrict mobility), but only among those who understood the information (Katzir & Liberman, 2022, SPPS). In a new ongoing project, we examine how ECEIs can encourage persistence on sustainability-related prevention goals (Katzir & Dohle, work in progress). In the first experiment (N = 750) that we conducted out of the planned experiments, we found that presenting people accumulated (vs. non-accumulated) information on how many disposable cups they saved by participating in a cup exchange program enhances the perceived effectiveness of using reusable cups, which, in turn, enhances perceived importance and intention of doing so. I will discuss planned and ongoing experiments as well as theoretical and practical implications of feedback on goal progress and specifically ECEIs.

18:00-18:30

A large, multisite test of self-administered mindfulness

Alessandro Sparacio[1 2], Gabriela Jiga-Boy[2], Hans Ijzerman[1 3], Ivan Ropovik[4 5], Filippo Giorgini[6], & Christoph Spiessens[7] (+ Authors that contributed to the data collection)[8]
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The idea behind mindfulness is simple: One sits in a quiet place, focuses on the present moment, and brings the attention back to an "anchor" when distracted. Perhaps because of this apparent simplicity self-administered mindfulness protocols are increasing in popularity in recent years, particularly to regulate stress. According to Jon Kabat-Zinn (1992, 2003), mindfulness can be defined as "paying attention in a particular way: On purpose, in the present moment, and nonjudgmentally". Precisely these two characteristics of mindfulness (i.e., the awareness of the present moment and the non-judgmental attitude) should temporarily increase the control of executive functions that are associated with better downregulation of stress (Teper et al., 2013). However, in our recent meta-analysis, we

found no convincing evidence for self-administered mindfulness interventions on stress reduction, mostly due to the limited quality of existing empirical evidence (Sparacio et al., 2022).
For that reason, we conducted a pre-registered, highly powered multi-site study to provide high-quality evidence on the foundational claims of self-administered mindfulness, testing four different self-administered mindfulness exercises in a population of non-meditators to verify which of these exercises were effective in reducing individuals' stress levels, compared to three, randomly sampled, non-mindful active control conditions (we created multiple control conditions to be less dependent on a single stimulus).
Before the multi-site study, we conducted a survey in which we asked mindfulness practitioners to identify the most representative mindfulness exercises. From the survey we extracted a list of mindfulness exercises that we included in our project: 1) Body scan (where participants were invited to pay attention to parts of the body and bodily sensations in a gradual sequence from feet to head), 2) mindful walking (where participants were asked to walk and meditate, "feeling" the part of the foot that is in contact with the ground after each step), 3) mindful breathing (where participants were invited to focus the attention on their breathing), 4) loving-kindness meditation (in which participants were encouraged to direct loving-kindness to themselves and other people). The experiment was administered via a Qualtrics link to participants fluent in English (as the audio meditations were in English). After providing consent, participants were randomly allocated to one of these four experimental conditions (body scan, mindful walking, mindful breathing, or loving kindness) or one of three active control conditions (in which participants had an equal probability of listening to an excerpt coming from one of three books that we selected for the study). In each condition, participants were presented with a different 15-minutes recording, recorded by a professional meditator. After these 15 minutes, participants answered the State-Trait Anxiety Inventory, Form Y to assess the level of "state" stress. We also collected data on the Neuroticism subscale of the IPIP - 5 NEO Domains (IPIP, 2021) and on the Self-Assessment Manikin scale, either of which we do not analyze for our confirmatory design. Finally, participants answered questions related to their demographic information. All materials of the study including the full transcript of the seven recordings can be found on our OSF page (https://osf.io/6w2zm/).
To assess whether any of the chosen mindfulness exercises were more effective than the randomly sampled control conditions to reduce stress in participants, we conducted a sequential design, monitoring data as they were collected for a highly efficient data collection. We sampled participants until a Bayes Factor threshold for compelling evidence was met or until a maximally feasible number of participants was collected (Schönbrodt et al., 2017). Data collection could be stopped anytime without having any adverse consequences on the interpretation of the Bayes Factor (Rouder, 2014), with expected sample per lab Nmin = 70 and Nmax = 120. We implemented the sequential design as adaptive, stopping data collection for a given test of an experimental against the control condition after obtaining a Bayes Factor of 10 in favor of H1 or a Bayes factor of 1/10 in favor of H0., re-assigning the remaining participants into other conditions where either a threshold has not been met. We started monitoring the Bayes Factor when there were at least 100 participants in each group. We monitored the Bayes Factor continuously and recorded the interim analysis at least every three days to check whether the threshold has been reached.
At the time of submission, we have 791 participants from 30 sites and Bayes factors for each condition have reached compelling relative evidence either in favor of the null or the alternative. We carried out four Bayesian mixed-effects models that involved a random intercept for site and for different stories used in the non-mindful active control condition to determine whether there was a difference between each mindfulness exercise and the active control condition. Of the four experimental conditions, "mindful walking" (BF01 = 0.01) "loving-kindness" (BF01 = 0.07) and "mindful breathing" (BF01 = 0.02) conditions reached the threshold of compelling relative evidence in favor of H0, and we thus closed

the allocation of participants to those groups. In contrast, the “body scan” condition surpassed the threshold of compelling evidence in favor of H1 (BF01 = 14.6).
Although we have obtained the pre-established thresholds of compelling and non-compelling evidence for all experimental conditions, as written in the pre-registration, we have reopened all groups to allow all sites to complete data collection to at least 70 participants, which means that, by the time of the conference, we could have collected an additional 1750 further participants.
Based on the data collected so far, we find compelling evidence against three self-administered mindfulness exercises in relation to stress reduction (mindful walking, mindful breathing, and loving kindness meditation) and compelling evidence in favor of one self-administered mindfulness exercise: Body scan, which consists in paying attention to different parts of the body, starting from the feet and arriving at the head. Though our sample will be larger by the time of the conference, we expect the effects to remain the same, but to have more accurate estimates of the effect sizes as well as whether any effects are moderated by the Neuroticism subscale of the IPIP. If the results of this study are confirmed, this will be the first high-quality evidence that a self-administered mindfulness manipulation reduces stress, at least temporarily, in English-speaking populations.

Room 6: The Self
Chair: Andrej Simić

9:00-9:30

Importance is important (in the cognitive dissonance model), but differently than you think
Paulina Szwed & Ewa Szumowska
Jagiellonian University in Kraków

In the original Cognitive Dissonance Theory, Festinger argued that the higher the personal importance of the conflicting elements in the system, the greater the magnitude of the dissonance in their relation. In other words, when cognitions are not important, dissonance should not occur. However, it is not the case; recent research has suggested that simple cognitive inconsistency may also evoke the dissonance's affective and motivational state (e.g., E. Harmon-Jones, Harmon-Jones, & Levy, 2015; Levy Harmon-Jones, E. Harmon-Jones, 2018). We propose that the personal importance of cognitions does not influence the magnitude of the dissonance itself but rather the level of the motivation for dissonance reduction. We tested this assumption in one correlational and two experimental studies (total N= 846). The results were in line with our predictions. They showed that importance affected the motivation to reduce dissonance, not dissonance magnitude, as initially proposed by Festinger., Thus, we modestly suggest how the classical theory can be remodeled to broaden its boundary conditions.

Keywords: cognitive dissonance, personal importance, dissonance reduction

9:30-10:00

Self-Consistency Versus Credibility: Testing the Mechanisms of the Self-Verification Effect
Ewa Szumowska[1], Natalia Wójcik[1], Paulina Szwed[1], & Arie W. Kruglanski[2]
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Research shows that people prefer self-consistent over self-discrepant feedback—the self-verification effect. However, it is not clear whether the effect stems from striving for self-verification or the preference for subjectively accurate and credible information. We argue that people prefer self-verifying feedback because they find it more accurate than self-discrepant feedback. We thus experimentally manipulated feedback credibility by providing information on its source.
In all studies, there were two groups of participants preselected based on their self-views: those with positive and those with negative social self-esteem. All received feedback about their social skills, one was positive, one negative. In both conditions, the self-consistent information (positive for those with positive self-views and negative for those with negative self-views) came from a low credibility source (a student), but we varied information about the source of the self-discrepant information: low credibility in the control condition (a student) versus high credibility in the experimental condition (an experienced psychologist). We measured participants' feedback preference, and in Study 3, we additionally measured the time of reading feedback statements.

In line with our expectations, the results showed that people preferred self-verifying feedback only in the control condition. In the experimental condition, the effect disappeared (or reversed, in Study 1). Also, the differences in time participants spent reading feedback were mainly driven by source credibility rather than feedback consistency with one's self-views.
These findings show that the preference for self-consistent feedback disappears when people perceive self-discrepant feedback as accurate. They thus suggest that feedback credibility, rather than the desire for self-verification, often drives the self-verification effect. This opens possibilities for providing people with self-discrepant feedback they would not readily reject.

Room 7: Face perception

Chair: Marleen Stelter

9:00-9:30

The many faces of mimicry: mimicry patterns across various facial expressions reflect attitudinal agreemen

Inbal Ravreby[1], Mayan Navon[2], Eliya Pinhas[3], Jenya Lerer[3], Yoav Bar-Anan[3], & Yaara Yeshurun[3]
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One of the richest and most powerful tools in social communication is the face. Facial expressions are a prominent way to convey information, and in particular high-dimensional, dynamic information. During the course of a conversation affective facial reactions and mimicry of facial expressions may take place. Mimicry typically occurs during positive communication, such as agreement. In this study we investigated in a real-world setting whether the mimicry pattern of multiple facial expressions depends on the interpersonal attitudinal agreement between interlocutors. We hypothesized that agreeing dyads will mimic each other more than disagreeing dyads, and that the latter will not mimic each other at all. Additionally, we hypothesized that the facial mimicry in agreeing dyads will occur specifically in affiliation-related facial expressions.
To test this, we analyzed video clips of American Democratic or Republican politicians being interviewed by a political ally or an opponent (Ntotal = 150 videos). All videos were collected via YouTube channels of politicians and news networks, such as CNN, MSNBC and Fox News. The interviews showed either agreement between two Republicans (RR) or two Democrats (DD), or disagreement between members of each affiliation. All videos were validated by two judges out of a pool of six who were well-informed of American politics, and rated the agreement level on a visual analogue scale ranging between 0 (total disagreement) to 100 (total agreement). Agreement videos were defined as videos in which both the interviewer and the interviewee are either Republicans or Democrats and the level of agreement was rated as at least 70 out of 100 by two judges. Disagreement videos were defined as videos in which the interviewer is a Republican and the interviewee is a Democrat or vice versa, and the level of disagreement was rated as 30 out of 100 or lower by two judges. We used openFace software, an image processing tool, which recognizes various facial features using deep neural networks, to extract the intensity of the facial action units for each time-point. We then analyzed the videos both as a whole and as averaged 5-second segments.
We performed a two-way repeated measures ANOVA to compare the main effects of facial expressions, agreement conditions, and the interaction between them on the expressiveness level in

the scope of the conversation as a whole as well as the averaged 5-second segments. The only significant effect was for the facial expression, demonstrating that the expressiveness level depends on the facial expression, but not on the agreement condition or the interaction between them. To measure the mimicry level we used cross-correlation analyses. In contrast to the prevalent notion that positive social interaction such as agreement fosters mimicry, we found mimicry of all facial expressions both in the agreement and in the disagreement conditions, for the conversation as a whole and for the averaged 5-second segments. Then, a two-way repeated measures ANOVA revealed in both scopes a significant effect for facial expression and also, more interestingly, a significant interaction between the facial expression and the agreement condition. This means that the degree to which the interviewer and the interviewee mimicked each other depended on the specific facial expression and also on the combination between the agreement condition and the facial expression. In other words, there was a different pattern of facial mimicry in each agreement condition. Next, we also performed a two-way repeated measures ANOVA for the time shift of the maximal cross-correlation – the time delay in which the mimicry level was maximal – and for reciprocity in the degree of mimicking each other. The only consistent finding for both the conversation as a whole and for the averaged 5-second segments was a significant effect for facial expression. Given the robust interaction between the mimicry level and the agreement condition, we set out to test whether an artificial classifier could use the facial expressions' maximal cross-correlation data to predict the agreement condition. A leave-one-out weighted KNN classifier successfully classified above chance level (33.3%) agreeing Democrats, agreeing Republicans, and disagreeing partners based on the mimicry pattern of their facial expressions. We obtained this result for the conversation as a whole as well as for the averaged 5-second segments. The overall classification accuracy was 46.67% when classifying by the whole conversation and 50% when classifying by averaged segments of 5 seconds. For the whole conversation, the classification accuracies for DD, RR, and disagree were 56%, 52%, and 42%, respectively (28/50, 26/50, 21/50) and for the 5-second segments the classification accuracies for DD, RR and disagree were 56%, 48%, and 36%, respectively (28/50, 24/50, 18/50).
Our results suggest that not only positive interpersonal communication is characterized by mimicry, but also negative one. This implies that mimicry may be a tool to understand others and thus successfully communicate, regardless of the positivity of the social interaction. Thus, our results may point to a fundamental role of mimicry in the ability to interact. Whereas the existence of mimicry may be indispensable for social communication, the specific pattern of facial expressions mimicry depends on the social context.

9:30-10:00

Understanding the impact of faces masks on the perception of primary facial dimensions
Daniel Fitousi, Noa Rotschild, Chen Pnini, & Omer Azizi
Ariel University

The COVID-19 pandemic has introduced new challenges for governments and individuals. Unprecedented efforts at reducing virus transmission launched a novel arena for human face recognition in which faces are partially occluded with masks. Previous studies have shown that masks decrease accuracy of face identity and emotion recognition. The current study focuses on the impact of masks on the speed of processing of these and other important social dimensions. Here we provide a systematic assessment of the impact of COVID-19 masks on facial identity, emotion, gender, and age. Four experiments (N = 116) were conducted in which participants categorized faces on a predefined dimension (e.g., emotion). Both speed and accuracy were measured. The results revealed that masks hindered the perception of virtually all tested facial dimensions (i.e., emotion, gender, age, and

identity), interfering with normal speed and accuracy of categorization. We also found that the unwarranted effects of masks were not due to holistic processes, because the Face Inversion Effect (FIE) was generally not larger with unmasked compared with masked faces. Moreover, we found that the impact of masks is not automatic and that under some contexts observers can control at least part of their detrimental effects.

10:00-10:30

Gender priming non-linguistic stimuli: the effect of feminine, masculine, and mixed gender primes on the perception of male, female, and gender-mixed face pairs

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In order to test the effect of visually presented linguistic primes on non-linguistic visual information, primes containing conceptual (i.e., gender stereotypical role nouns) and definitional (i.e., gendered first names) gender information were examined across two exploratory experiments utilising the innovative face pair task with three response options (female face pairs, male face pairs, gender-mixed face pair). The goals of these experiments were to (a) investigate the existence and reliability of traditional linguistic binary-gender priming effects (i.e., linguistic gender-specific primes) on visual non-linguistic gendered targets (i.e., face pairs); (b) to explore whether mixed-gender information can successfully prime (i.e., linguistic gender-balanced primes) and be primed (non-linguistic mixed targets); and (c) to explore potential differences between conceptual and definitional priming. In Experiment 1, only feminine and masculine written word primes were used, and the experimental blocks were presented in a set order. In Experiment 2, gender-balanced and neutral primes were added, and block order was counterbalanced. The results offered support for the existence and reliability of traditional gender priming effects, and offered partial support for the ability for mixed gender information to prime and be primed, but only offered minimal support for the existence of differences between conceptual and definitional primes. Together, these findings are considered promising evidence that the innovative face pair task allows for the investigation of the impact of language on mental representations of gender beyond the purely linguistic domain and beyond the traditional binary manner.

10:30-11:00

What explains the other-race effect? A meta-analysis of expertise and motivational accounts.

Marleen Stelter[1], Stefan Schweinberger[2], & Juliane Degner[3]
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People are better at recognizing faces from their ethnic or 'racial' ingroup compared to faces from outgroups (known as the other-'race' effect; ORE). In popular theorizing, the ORE is assumed to be caused by higher levels of expertise for ingroup vs. outgroup faces, by motivational and attitude-related factors, or by a combination of both. Our meta-analysis aims at testing these theories at macro and micro levels. Averaging ORE effects across k = 339 samples (comprising N = 22.757 participants; sample size range = 8 - 1482), initial analyses revealed a robust average effect size of dz = 0.49, 95% CI [0.45; 0.53], p <.001. In a sub-sample of US American studies, regional demographics (i.e., percentage of outgroup population) were unrelated to the magnitude of the ORE effect size (k = 111, beta = 0.008, p = 0.965). Similarly, regional levels of prejudice towards Black Americans derived from Project Implicit were unrelated to the magnitude of the ORE effect for Black vs. White faces in White

American participants, (k = 73, beta = 0.327, p = .760). Taken together, the preliminary results from our macro level approaches provide little empirical support for neither expertise nor motivational theories. In further analyses, we focus on correlations between individual-level contact and attitude measures to analyze effects of expertise and motivation on a micro level.

Room 8: Evaluative conditioning

Chair: Roland Imhoff

9:00-9:30

What Does Multinomial Modeling Tell Us About Evaluative Learning? An Inference Asymmetry Perspective on Relational Evaluative Conditioning

Karoline Bading & Klaus Rothermund
Friedrich Schiller University Jena

The idea that the mere co-occurrence of stimuli can influence how those stimuli are evaluated plays a key role in all major accounts of evaluative conditioning (EC). Arguably the strongest support for this idea comes from the multinomial modeling approach which seeks to quantify the respective contributions of co-occurrence and relational information on EC effects. A consistent findings to emerge from this work is larger than zero estimates for the co-occurrence (C) parameter, suggesting that mere co-occurrence influence EC effects in ways that are independent of relation information. Interestingly, past work has failed to identify mental mechanism(s) that offer an adequate explanation for such outcomes (i.e., neither automatic association formation, partial retrieval of US valence information, nor the non-automatic formation of co-occurrence propositions seem to provide a satisfactory account).
In this talk, I will argue that the C parameter does not reflect the impact of mere co-occurrences at all. Instead the pattern of outcomes underlying the C parameter may be driven by an inference asymmetry between the different types of relations present in most relational EC studies. Across a series of simulation studies I demonstrate that an inference asymmetry not only provides a viable explanation of the C parameter but also comprehensively explains the various and sometimes puzzling results of previous validation studies. I conclude the talk by discussing recent work testing previously overlooked moderators of evaluative learning.

9:30-10:00

The Role of Inference as Modulating Assimilative Effect in Backward Evaluative Conditioning with Relational Information

Yahel Nudler[1], Tal Moran[2], & Yoav Bar-Anan[1]
[1]*Tel-Aviv University,* [2]*The Open University of Israel, Ra'anana*

The Evaluative Conditioning (EC) effect is a change in the evaluation of a stimulus (CS) after co-occurrence with an affective stimulus (US). A central question in EC research is whether the mere CS-US pairing results in the CS acquiring the US valance (assimilative effect), even when people know that the pairing is because of an opposition relation rather than a similarity relation between the CS and the US. The current prevailing assumption is that once relational information is comprehended

properly, the evaluation of the CSs is determined by those relations. For example, paradigms utilizing both a CS that precede the US (forward CS) and a CS that follows the US (backward CS), together with explicit relational information (i.e., the CS starts or ends the US, respectively), result in the backward CS acquiring the valence opposite to the US (contrast effect). Interestingly, however, studies omitted of the forward CS reported participants preferred the CS that ended the positive US over the CS that ended the negative US (assimilative effect). The present research (five studies, total N = 4,251) investigated whether this assimilative EC effect is still evident when the relational information is salient and well understood by the participants. Studies 1-2 replicated the assimilative effect among participants who showed accurate memory of the relational information. In Studies 3-4, we replicated the assimilative effect even when participants actively chose the CSs in order to end the US, validating clear understanding of the CSs roles. Curiously, Study 4 found that participants reported that the role of ending the presentation of the positive USs is more positive than the role of ending the presentation of the negative USs. Therefore, in Study 5, we asked participants to evaluate the roles before or after the pairing task. Participants reported a preference for the role of ending negative USs before the pairing, and a preference for the role of ending the positive USs after the pairing. Further, in Study 5, even when participants showed clear understanding of the relational information and its evaluative implications before the EC procedure, they still showed an assimilative effect on the evaluation of the CSs, reporting a preference for the CS that ended the positive USs over the CS that ended the negative USs. The results provide strong evidence for an assimilative EC effect despite clear knowledge that the relational information suggests an opposition CS-US relation. This might suggest that the effect of the inference from the relational information is overpowered by the effect of mere CS-US co-occurrence, even when the relational information is fully comprehended.

10:00-10:30

Does Co-Occurrence Information Influence Evaluations Beyond Relational Meaning? An Investigation Using Self-Reported and Mouse-Tracking Measures of Attitudinal Ambivalence

Jérémy Béna, Antoine Mauclet, & Olivier Corneille
UCLouvain, Belgium

People occasionally encounter information whose structure bears divergent evaluative implications. For instance, when reading that a sunscreen protects against skin cancer, the relational meaning of the information (i.e., “protects against skin cancer”) has positive evaluative implications for the sunscreen. In contrast, the co-occurrence (of “sunscreen” with “skin cancer”) would imply a negative evaluation of the sunscreen. When the case, does co-occurrence information influence people’s evaluations beyond the relational meaning of the information? This question has been investigated using task comparison procedures (comparing evaluative outcomes on, e.g., a direct vs. indirect evaluative task) and process dissociation procedures (estimating relational and co-occurrence parameters within a given evaluative task). To investigate this question, we propose here a new approach based on attitudinal ambivalence measures. In doing so, we overcome limitations of the two previous approaches. Specifically, in four preregistered experiments (Ntotal= 868), we tested whether ambivalence is higher when co-occurrence and relational information have divergent rather than convergent evaluative implications. In three experiments (Experiments 1 to 3), we tested this prediction in experiential procedures (participants directly experienced the pairings between neutral and valenced stimuli). We also tested this prediction in an instruction-based experiment (Experiment 4), in which participants were only informed about the pairings but did not directly experience them. In all experiments, we used self-reported and mouse-tracking measures of ambivalence. We found

higher self-reported ambivalence in divergent than convergent conditions in all experiments. Overall, ambivalence estimated with mouse-tracking measures was higher in divergent than convergent conditions in the experiential experiments but not in the instruction-based one. We will discuss these findings in light of propositional single-process and dual-process models of attitude learning.

10:30-11:00

Evaluative Context and Conditioning Effects Among Different and Same Objects
Roland Imhoff & Hans Alves
Johannes Gutenberg University, Ruhr University, Bochum

We address an apparent discrepancy in the literature on how context stimuli influence evaluations of target stimuli. While a rich literature suggests that target evaluations are often contrasted away from the valence of context stimuli, reported effects of Evaluative Conditioning (EC) are almost exclusively assimilative. Specifically, when a neutral conditioned stimulus (CS) repeatedly co-occurs with a positive unconditioned stimulus (US), the CS is later evaluated more positively. Contrast effects from mere co-occurrences are absent in the EC literature. We hypothesized that this can be explained by the stimulus composition in EC tasks, which usually depict different objects as target (CS) and context (US). In ten experiments, we confirmed that when target and context stimuli depict different objects assimilation clearly dominates. Yet, when target and context depict stimuli from the same object class, contrast effects become dominant. These contrast effects are invisible in standard EC tasks, because CSs are contrasted with all positive and negative USs of a given stimulus set. The present work thereby identifies a central determinant of the direction that evaluative context and conditioning effects take. While different-object contexts evoke assimilation, same-object contexts increase the likelihood of contrastive evaluations. We discuss the various theoretical and practical implications of our findings.

Room 9: Social exclusion
Chair: Christiane M. Büttner

9:00-9:30

Young, out of work, excluded? Ostracism experiences are particularly frequent and strong for young unemployed individuals
Elianne Albath[1], Christiane Büttner[1], Selma Rudert[2], & Rainer Greifeneder[1]
[1]*University of Basel,* [2]*University of Koblenz-Landau*

Ostracism—being excluded and ignored—is a painful and threatening experience (Williams, 2009) that is commonly investigated in experimental settings. The focus on laboratory experiments with ad-hoc samples leaves the analysis of specific societal risk groups greatly unexplored. Here, we investigate whether individuals' employment status (being unemployed vs. employed) and age affect the frequency of ostracism experiences and feeling like an outsider.
On the one hand, unemployed individuals may experience ostracism more strongly due to the stigmatization resulting from their employment status (Karren & Sherman, 2012; O'Donnell et al., 2015) or, relatedly, a heightened fear of negative evaluation (Leary, 1983). Moreover, this association

may be more pronounced for younger (vs. older) adults for whom leaving the workforce is more often non-normative.
On the other hand, the workplace is a relevant source of many (intentional and unintentional) ostracism experiences (Ferris et al., 2008; Robinson et al., 2013). Hence, employed individuals may experience more ostracism by being exposed to an environment in which ostracism is common and accepted (Robinson et al., 2013; O'Reilly et al., 2015).
In three studies and countries, we test whether ostracism frequency and feeling like an outsider are predicted by the interaction between employment status and age. Study 1 constitutes an exploratory analysis using data from the German SOEP-IS (N = 1'746). Results suggests that 1) among adults aged 33 or less, unemployment is associated with more frequent ostracism. In contrast, for adults aged between 58 and 65, unemployment is associated with less frequent ostracism. Informed by the results of Study 1, Study 2, makes use of another large dataset from New Zeland (N = 35'869) and supports the prior finding by showing that unemployed (vs. employed) adults feel more like outsiders—especially younger ones. Study 3 (N = 331) assesses both ostracism markers (frequency and outsider feelings) in a different sample recruited in the United Kingdom. Results again support the finding that unemployment is associated with more frequent ostracism experiences and feeling more like an outsider—in particular for young adults. Further, Study 3 explores three underlying mechanisms for why younger (vs. older) unemployed individuals are more at risk of experiencing ostracism (descriptive work norm, occupational future time perspective, and work centrality). From these three potential mediators, only occupational future time perspective—the perceived possibilities left in one's work life—shows age-dependent differences among individuals and mediated the effect of age on feeling like an outsider for both unemployed and employed individuals.
In conclusion, results from Studies 1 to 3 suggest that younger unemployed individuals are particularly at risk of social exclusion. The present set of studies is among the first to assess ostracism in everyday life using large data sets including longitudinal survey data. In doing so, we shed light on risk groups for experiencing ostracism in the general public. This knowledge can be used to design measures that help those at risk.

9:30-10:00

A new tool measuring the four fundamental needs threatened by social exclusion

Céline Robert[1], Marie-Pierre Fayant[1], Cristina Aelenei[1], & Theodore Alexopoulos[2]
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According to the Temporal Need Threat Model (Williams, 2009), social exclusion, threatens four fundamental human needs: belonging, self-esteem, meaningful existence, and control.
This assertion is usually supported by self-reported satisfaction of these needs. Such measures are commonly used to study the effect of exclusion on these basic needs (e.g., Godwin et al., 2014) but also as social exclusion induction manipulation checks (e.g., Xu et al., 2015). Yet, only one research so far has examined the validity of the most widely used scale in the literature (Zadro et al., 2004), but does not allow a clear distinction of the four needs, questioning the validity of the scale (Gerber et al., 2017). We therefore decided to develop and validate a new scale measuring the four fundamental needs. After a careful review of the definitions of these needs, the already existing items, and two preliminary studies (N Study 1 = 246 and N Study 2 = 392), we created thirty-two items by splitting three of the four needs into several sub-dimensions (four items per sub-dimension).
We defined Belonging as the need to have positive interactions and to feel connected with others. We clarified the definition of self-esteem by dissociating: Global Self-Esteem (the need to have a positive self-image; adapted from Rosenberg's scale, 1965) and Social Self-Esteem (the need to feel appreciated

by others). For the need for meaningful existence, we identified: Global Meaningful Existence (the need to avoid fear of death by having an impact on the world; adapted from the Meaning in Life Questionnaire, Steger et al., 2006) and Social Meaningful Existence (the need for social recognition). Finally, control was divided into three sub-dimensions: General Internal Control (the need to influence the course of events; adapted from the internal dimension of the locus of control scale, Levenson, 1981), Internal Interpersonal Control (the control that the individual has over her/his social environment), and finally External Interpersonal Control (the control that others have over the individual's social environment).
In a third pre-registered study, we administered this scale online to 791 participants, asking them to respond based on their current feelings. Confirmatory factor analysis reveals that our 8-subdimensional model fits the data better than to the two alternative pre-registered models. Nevertheless, an exploratory factor analysis did not reveal the 8 expected dimensions but a 5-factor structure instead. Moreover, we did not find the expected correlation patterns between the different needs following Williams' (2009) model, namely: a stronger link between belonging and self-esteem and between meaningful existence and control. Instead, we observe a very strong link between Belonging, Social Self-Esteem, and Social Meaningful Existence, a correlation between the two Interpersonal Control sub-dimensions, and finally a correlation between Global Meaningful Existence and General Internal Control.
Using a fourth pre-registered online study (Expected N = 1200), we are further validating this scale via the Cyberball to examine whether, after an initial episode of social exclusion, we observe the same 8-subdimensional structure and whether specific sub-dimensions are threatened.
This work is a first crucial step towards the development of a new scale of the fundamental needs' satisfaction applicable to any experience of exclusion.

10:00-10:30

Social Pain by Non-Social Agents: Exclusion Hurts and Provokes Punishment Even if the Excluding Source is a Computer

Melissa Jauch[1], Selma C. Rudert[2], & Rainer Greifeneder[1]
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Being socially excluded is a painful experience and can have taxing psychological consequences. Even in experimental research, which relies on mild forms of social exclusion and investigates short-term consequences, the experience of social exclusion has been shown to have strong effects on individuals' emotional state, threatening fundamental psychological needs. Interestingly, the experience of social exclusion is no less painful when inflicted by non-human agents, such as computers (Zadro et al., 2004). With this research, we (1) extend prior evidence by showing that this similarity also holds for downstream responses to exclusion, (2) provide a convincing explanation for this finding, and (3) offer a critical ethical step ahead for an entire field by showing that deceiving participants about the true nature of computer-generated interaction partners is not necessary.
A prominent explanation for the strong negative effects of social exclusion even in laboratory research is the existence of an ostracism detection system that automatically reacts if the slightest threat of being excluded is perceived (Williams, 2009). Research suggests that this system sounds the alarm even if the source of exclusion is not human, but computer-generated. For instance, participants in studies by Zadro et al. (2004), who were made aware of the fact that they interact with computer-generated players, nevertheless reacted to exclusion by these players in a similar way as participants who believed that they were interacting with humans.

So far, potential causes and underlying psychological processes for the similar consequences of human and computer exclusion have not been systematically investigated. Moreover, it was unclear whether the similarity between human and computer exclusion extends to downstream responses and behavior. While source-unspecific reactions triggered by an ostracism detection system provide a parsimonious explanation for the similarity between human and computer exclusion, they are likely not sufficient. We here suggest an additional process: anthropomorphization of computer-agents. Anthropomorphization describes individuals' propensity to ascribe human traits to non-human agents, and is triggered automatically when individuals perceive social cues by non-human agents. As a consequence, social scripts are activated and individuals automatically apply social rules and behaviors to non-human agents, such as computer-agents (Nass & Moon, 2000). We argue that social cues are key to understand computer exclusion more comprehensively: When individuals are socially excluded by computer-agents in paradigms such as ball-throwing games, these computer-agents are operating in an inherently social context, taking on a role that is originally taken on by humans. This context thus constitutes a particularly strong social cue, which results in anthropomorphization of the exclusion source and reactions to computer exclusion that resemble reactions to human exclusion. Importantly, and unlike an account that only draws upon automatic reactions by the ostracism detection system, an anthropomorphization account also assumes similar reactions to computer exclusion at later stages of exclusion (e.g., reflective stage), when emotional recovery occurs as individuals reevaluate the exclusion situation. This new perspective affords unique and novel predictions tested in this research. Four experimental studies were conducted to test the anthropomorphization account in computer exclusion. Bayesian testing was applied to quantify the evidence for the presence or absence of effects. Studies 1 (N = 306) and 2 (N = 125) replicate and extend prior work by showing that the similarity between human and computer exclusion also holds for the reflective stage of exclusion and across different paradigms. Study 3 (N = 221) shows that human and computer exclusion also results in similar behavior towards the excluding sources, as excluded participants punish excluding humans and computers to a similar extent. More precisely, when participants play an interactive word-riddle game where they can choose the riddles their co-players will receive in the later game, excluded individuals generally select more difficult riddles compared to included participants, irrespective of whether they assume their interaction partners to be human or computer-generated.

Study 4 (N = 396) directly tests the assumption that the presence of social cues elicits anthropomorphism. Participants worked on a task where they were only presented with numbers appearing on the screen. In the social conditions, the task instruction was enriched with social cues by providing information about ostensible human or computer-generated co-players. Results suggest that participants who receive an instruction including social cues prior to the task report stronger feelings of exclusion and more need threat when they cannot actively participate in the task compared to participants who receive a non-social task instruction. Importantly, the experience of social exclusion is unaffected by whether these social cues refer to human or computer-generated agents. Study 4 further provides direct support for anthropomorphization processes, showing that individuals excluded by computer-agents do not differ from individuals excluded by humans in the ascription of human traits to their co-players. That is, in both conditions, participants blame others more strongly than participants in the non-social condition.

Based on the present evidence, we highlight three key insights: First, the present findings provide a critical extension of prior research by demonstrating that the similarity between human and computer exclusion also extends to affective and cognitive responses at the reflective stage and to behavior; moreover, we used different exclusion paradigms to gauge generalizability. Second, the present work offers a theoretical explanation for the similarity between human and computer exclusion by integrating anthropomorphism into social exclusion. Combining both lines of research provides a framework that clarifies why and when non-social actors provoke social pain. Finally, the current findings provide insight with regard to a very practical question, namely the necessity of deception in

social exclusion research. Most exclusion research relies on paradigms in which participants are made to believe that the computer-generated co-players are in fact human (Wirth, 2016), which is problematic for two reasons: First, it is unclear to what extent participants notice this deception and may alter their subsequent behavior in unsystematic ways (e.g., Hertwig & Ortmann, 2001). Second, deceiving participants in psychological research is discussed as ethically problematic per se (e.g., Boynton et al., 2013). The present findings make a strong case that deceiving participants about the true nature of computer-generated interaction partners might not be necessary.

10:30-11:00

The best but still left out – Grandiose and vulnerable narcissists' experience of everyday ostracism

Christiane M. Büttner[1], Selma C. Rudert[2], & Rainer Greifeneder[1]
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Being excluded (ostracized) represents an intensely stressful experience that threatens fundamental human needs and has severe, negative consequences for individual well-being, such as fostering depression and suicidal ideation (e.g., Chen et al., 2020; Rudert et al., 2020). Considerably less research has been devoted to the question why some individuals become targets of ostracism in the first place. In the present contribution (5 Studies, 4 pre-registered, total N = 3076) we examine the relationship between target narcissism and frequency of getting ostracized in daily life. We hypothesize that narcissists experience everyday ostracism more frequently than non-narcissists. This hypothesis is grounded in three distinct conceptual pathways: First, increased ostracism reports may be rooted in narcissists' altered, more hostile, perception of social cues that results in higher likelihood of narcissists feeling excluded (i.e., negative perception mechanism; e.g. Cascio et al., 2015; Denissen & Penke, 2008). Second, narcissists may display group-disturbing behaviors that motivate others to factually exclude them more often (i.e., target behavior mechanism; e.g. Brunell et al., 2011; Leckelt et al., 2015). Third, there might be a reverse causality relationship of target narcissism and ostracism experiences where narcissism is not only an antecedent but also an outcome of being excluded – a mechanism that is missed in cross-sectional study designs (i.e., reverse causality mechanism; Nielsen & Knardahl, 2015).
In Study 1, using longitudinal data from a nationally representative sample, we establish that there is a strong link between grandiose narcissism and reported frequency of experiencing ostracism (German Socio-Economic Panel Innovation Sample, N = 1592). In Study 2, we replicate this link in both vulnerable and grandiose narcissists using experience sampling methodology (N = 113, 21 days, 695 exclusion experiences). Studies 3 and 4 focus on the negative perception mechanism. Studies 3 (N = 362) and 4 (N = 258) examine if the link between ostracism and narcissism can be explained by an increased sensitivity of narcissists to exclusion cues: In an unambiguous exclusion situation (Study 3), we find that there is no difference in narcissists compared to non-narcissists in perceiving to be excluded, but, in ambiguous exclusion situations (Study 4), narcissists more readily perceive to be excluded compared to non-narcissists. Finally, Study 5 (N T1 = 487, N T2 = 264) tests the reverse causality relationship between ostracism and narcissism in a cross-lagged design with two measurements six months apart. We find that vulnerable, but not grandiose narcissism at T1 predicts higher frequency of getting ostracized six months later, at T2. There was no support for the reverse direction of effect: Higher frequency of getting ostracized at T1 did not lead to increases in narcissism at T2, neither in grandiose narcissism, nor in vulnerable narcissism. We present plans for testing the target behavior mechanism from the perspective of sources of ostracism and observers of ostracism in two further studies. We discuss implications for the study of risk factors for ostracism experiences as well as implications for narcissists' social experiences.

Room 6: Impression formation
Chair: Marine Rougie

14:15-14:45

The efficiency of spontaneous social inferences in realistic behaviors
Felix Kruse & Juliane Degner
Universität Hamburg

People are social animals. In order to successfully navigate through our social environment, we routinely form impressions of others. One way to do so is observing and interpreting others' behavior. Past research on Spontaneous Trait Inferences (STIs) indicated that perceivers frequently use behavioral information to infer dispositional information (i.e., traits) about actors. In previous research, we demonstrated that perceivers can and do spontaneously infer mental states from behavior as well, if behaviors potentially allow for both inferences. One goal of the current research was thus to investigate whether spontaneous state and trait inferences occur with comparable degrees of automaticity, with a specific focus on processing efficiency. Past STI research has demonstrated that spontaneous inferences do occur with some degree of processing efficiency (i.e., under concurrent working memory load). This research, however, has typically employed highly trait-indicative behavioral stimuli that contain information about either extreme or repeated behavior (e.g., "I attend my church twice a week.", "I hate animals. Today […] I saw this puppy. So I kicked it out of my way."; Carlston & Skowronski, 1994). Everyday behavior, however, is often ambiguous and allows for many simultaneous inferences. In the current research, we focus on trait and state inferences about actors exhibiting more complex, dual-implication behaviors, that are arguably more common in everyday life. In a series of three pre-registered experiments, we investigated whether or to what extent spontaneous trait and state inferences occur under concurrent working memory load. We employed behavioral statements that potentially allowed for either trait- or state-inferences (single-implication behaviors, Experiments 1 and 2) or both (dual-implication behaviors, Experiment 3) in a false recognition task. Working memory load reduced trait and state inference effects equally strongly for single-implication behaviors. For dual-implication behaviors, both inference effects were further reduced even when cognitive load was relatively low.
Our results suggest that spontaneous social inferences may only be drawn efficiently from behaviors that are simple in the sense that they afford only a single inference. For more complex behaviors, that are arguably more common in everyday life, inferences appeared to occur only when sufficient cognitive resources were available. These findings question the presumed high degree of efficiency of spontaneous social inferences, suggesting that the conclusions drawn from research using simple single-implication behaviors might not generalize to many instances of everyday impression formation in person perception. They also add to many recent findings that demand further investigation of the boundary conditions of social inferences from behavior.

14:45-15:15

The influence of a distrust mindset on revision of spontaneous evaluations

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Dual-process accounts that explain spontaneous evaluations of stimuli as the consequence of slow associative learning processes have been challenged by research showing fast revision of such evaluations after exposure to highly diagnostic countervailing information. Although the believability of the diagnostic information has been shown to moderate subsequent revision in this paradigm, no research has yet investigated the impact of the believability of the initial information, often operationalized as a learning schedule of applicable positive and inapplicable negative information. Four experiments (total N = 666) investigated this question. Experiment 1 showed that cueing distrust during the learning of the initial information prevents the establishment of an initial pattern of spontaneous evaluations, in line with accounts proposing propositional processing of information during acquisition of spontaneous evaluations. Propositional accounts further predict that doubting the believability of the initial information after learning should facilitate subsequent inferences opposing that information, leading to stronger revision effects. However, distrust cues when recalling the initial information did not facilitate subsequent revision due to new information (Experiments 2a/b). Experiment 4 tested an alternative mechanism: distrust cues may unintentionally activate alternatives to existing statements. Recalling negative information should thus activate positive alternatives and vice versa. If the momentary evaluation induced by recalling initial information affects the subsequent revision, the combination of distrust cues with positive and negative information should lead to differing revision patterns due to the difference in net evaluation strength. Experiment 4 supported this prediction: in a control condition, recalling positive (applicable) information led to stronger subsequent revision than recalling negative (inapplicable) information. However, this pattern reversed when the information was recalled in the presence of distrust cues. These findings suggest that spontaneous evaluative revision may be driven by the contrast of new information to the initial information. This raises questions for both propositional and dual-process accounts. They also present a cautionary note on uncritically applying a mixture of applicable and inapplicable information in evaluation induction procedures.

15:15-15:45

Memory Retrieval in Acquired Attitudes

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If persons, objects, or other stimuli are presented together with evaluative information observers often acquire new attitudes about them. This is for example the case in evaluative conditioning where simple pairings between neutral and valent stimuli are presented or in attitude formation paradigms where valent behavioral information is provided about a person. In six experiments, we tested the hypothesis that acquired attitudes are moderated by the reactivation of explicit memory of evaluatively relevant information that was experienced before with the attitude object. In Experiment 1, an evaluative conditioning effect was moderated by the presentation of the US as a retrieval cue in a design that controlled for valence priming effects. The same effect was shown in Experiment 2 in a paradigm where attitudes were formed based on behavioral descriptions. Experiments 3a and 3b tended to show a similar moderation effect in a paradigm where stimuli were paired with both positive

and negative information, although this effect was quite small and not in both studies significant. In Experiments 4 and 5, we investigated the influence of memory reactivation in a setting with higher external validity: We assessed people's liking of everyday objects and showed that liking is related to the valence of a retrieved associated memory after retrieval of this memory. We found this on valence ratings and on an adapted Affect Misattribution Procedure, but not on an evaluative priming task. Our studies show across several paradigms that not only the encoding and storage of evaluative information is relevant for acquired attitudes, but also the retrieval of this information. This suggests that acquired attitudes – at least in the paradigms and timescales that we investigated – do not become a semantically integrated aspect of the attitude objects, but remain dependent on the retrieval of the information where they originally came from.

15:45-16:15

From Halo to Conditioning and Back Again: Exploring the Links Between Impression Formation and Learning

Marine Rougier[1], Jan De Houwer[1], Juliette Richetin[2], Sean Hughes[1], & Marco Perugini[2]
[1]*Ghent University,* [2]*University of Milano-Bicocca*

Impression formation effects—such as the halo effect—and learning effects—such as evaluative or attribute conditioning effects—are often seen as separate classes of phenomena. They are described using different terms and have been explained on the basis of different cognitive theories. In a recent conceptual paper, De Houwer et al. (2019) suggested that both may actually qualify as instances of a more general effect called "feature transformation effect", where a source feature (e.g., attractiveness of a face; valence of an unconditioned stimulus; US) influences judgements about a target feature (e.g., social competence of a person; valence of a conditioned stimulus; CS). In halo effects, the source and target features typically differ (e.g., a person with an attractive face is judged as more socially competent) but belong to the same object (here, the same person). In evaluative conditioning, source and target features are the same (e.g., a neutral CS is judged as more positive after being paired with a positive US) but belong to different objects (the CS on one hand, the US on the other). This analysis highlights a novel and undocumented phenomenon at the crossroad of impression formation and learning: a feature transformation effect where source and target features are different (as in halo studies) and belong to different objects that are paired together (as in evaluative conditioning studies). We named this phenomenon the "pairing-based halo effect". This effect predicts that pairing a stimulus varying on a source feature (e.g., faces low vs. high physical attractiveness) with another stimulus that is neutral on this feature (e.g., faces average on attractiveness) should influence how the latter is perceived on a series of target features that differ from the source feature (e.g., social competence). Across six pre-registered experiments (n = 1050), we obtained evidence for this phenomenon in the context of person perception (i.e., attractiveness halo) and food perception (i.e., health halo). We also showed that this type of feature transformation is influenced by several known moderators of halo and conditioning effects (i.e., conceptual beliefs about traits relationship, memory of pairings, salience of the source feature), further emphasizing its hybrid nature. Specifically, as in halo effects, the pairing-based halo effect was larger for target features that individuals believe 'go together' with physical attractiveness (e.g., vanity, social competence) as compared to features they think do not go together (e.g., intelligence, integrity). As in conditioning effects, the pairing-based halo effect was larger for participants having a correct (vs. incorrect) memory of the pairings and when the source feature (e.g., attractiveness) was made salient. This series of studies enriches the literature on impression formation by showing that stimuli pairing, typical of conditioning, also constitutes an interesting way to create impression formation effects. Moreover, this work extends knowledge on

conditioning effects by showing that pairing effects can also apply to multiple target features that differ from the manipulated source feature.

Room 7: Indirect measures

Chair: Adam Hahn

14:15-14:45

Facial Targets in the Affect Misattribution Procedure - a better canvas for prejudice?

Sarah Teige-Mocigemba[1], Manuel Becker[1], Jeffrey Sherman[2], Regina Reichardt[3], & Karl C. Klauer[4]
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Since its introduction, the Affect Misattribution Procedure (AMP; Payne et al., 2005) has become one of the psychometrically most promising, most widely used measures for indirectly assessing attitudes. The AMP rests on the assumption that subjects unintentionally misattribute their affective response to a prime (e.g., a photo of an outgroup member) to a neutral target (a Chinese character). As such, the AMP should be especially useful in socially sensitive domains. However, recent research questioned this assumption because the AMP failed to capture prejudice distributions in line with theoretical predictions and empirical evidence of other measures (e.g., Teige-Mocigemba, Becker, Sherman, Reichardt, & Klauer, 2017). Indeed, the exact processes involved in the AMP and its variants, especially with regard to the "implicit" nature of the task, are still highly debated along with possible boundary conditions for its application. In the present talk, we will present six studies that may inform this debate. Using a newly developed variant of the AMP where blurred face drawings substitute Chinese characters as targets (cf. the Stereotype Misperception Task by Krieglmeyer & Sherman, 2012), we aimed at uncovering the conditions that may be beneficial for the AMP's usefulness in socially sensitive domains. In Studies 1 and 2 (total N = 240), prejudice against members of Germany's biggest minority was found in the AMP version with face-like targets (AMP-face), but not in the standard AMP, and there was a reliable difference between these two measurement outcomes. We explored different explanations for the superiority of the AMP-face to the standard AMP: Building on prior research of Gawronski and Ye (2015), Studies 3 to 5 (total N = 175) manipulated prime-target order within participants to examine whether effects in the AMP-face may rely on a biased perception process rather than a misattribution process. It was assumed that the former process may be less easily controllable than the latter, resulting in stronger prejudice effects. In support of a misattribution account, however, and similar to the standard AMP, AMP-face effects were independent of prime-target order in two of three experiments. In Study 6 (N = 80), we followed the idea that the operation of the misattribution process may depend on prime-target fit. We manipulated prime-target fit by presenting participants with abstract logos and portraits as primes and either standard AMP or AMP-face targets. As expected, AMP effects were stronger, if prime-target fit was increased (i.e., if facial targets were preceded by portraits as primes in an AMP-face and if Chinese characters were preceded by abstract logos as primes in the standard AMP).The discussion focuses on the mechanisms that may account for the different result patterns of the two AMP variants and, thereby, inform the debate on the "implicitness" of the AMP.

14:45-15:15

Cognitive Processes Underlying the Weapon Identification Task: A Comparison of Models

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Motivated by numerous incidents of police shootings of unarmed Black men, Payne (2001) proposed the weapon identification task (WIT) to investigate the effect of race on the visual identification of weapons and perceptually similar-looking innocuous objects. The WIT is a sequential priming paradigm in which participants are instructed to identify target objects as either weapons (e.g., guns) or innocuous objects (e.g., tools) following a Black or a White male face serving as a prime. Many studies found that innocuous objects are more often erroneously identified as weapons following a brief presentation of a Black male face compared to a brief presentation of a White male face. In addition, participants identify a weapon faster when it is preceded by a Black male face prime and an innocuous object faster when it is preceded by a White male face prime. Regardless of the robust race effects demonstrated in the WIT (Rivers, 2017), the actual nature and interplay of the cognitive processes leading to this weapon identification bias are still not fully understood.

The present study compares four plausible dual-process models differing in their assumptions on the nature and interplay of controlled and automatic processes underlying the racial-bias effect observed in the WIT. As outlined by Klauer and Voss (2008), all four models considered here are variants of the process dissociation procedure (PDP), a widely used latent-class measurement model for the WIT to disentangle the effects of controlled and automatic processes on task performance. The PDP estimates the probabilities of the latent controlled and automatic cognitive processes driving responses in the WIT. Nevertheless, it is agnostic about the nature and temporal order of these processes. The controlled process entails the ability to discriminate between weapons and innocuous objects but it may also entail the ability to resolve conflicts between racial associations and target identification, which conceptually corresponds to inhibitory processes overcoming biased automatic associations. For the automatic process it is possible to entail an interfering activation of racial threat-stereotype associations (e.g., Black males are associated with guns) or a stereotype-informed guessing tendency towards one of the response options. In addition, given that controlled and automatic processes may operate sequentially or in parallel, it is worthwhile to investigate how these processes interact and, if so, how they are temporally ordered. Consequently, we sought to compare the following psychological process models based on the PDP which posit different assumptions about the underlying cognitive process structure. The preemptive conflict-resolution model (PCRM) assumes that a response is preemptively decided to be either exclusively given by the controlled process or by the automatic process. The default interventionist model (DIM) assumes that a default automatic response is activated first and may or may not be successfully overcome by the controlled process subsequently. According to the parallel competitive model (PCM) automatic and controlled processes run in parallel, sometimes requiring a subsequent conflict resolution process if the proposed responses disagree. Finally, the guessing model (GM) assumes that the controlled process determines the response, but if it fails to do so, the response is based on guessing. We formalize these psychological process models in the framework of response time-extended multinomial processing tree (MPT-RT) models (Heck & Erdfelder, 2016) and compare them across eight previously published data sets of the WIT. Through the inclusion of response latency data by modeling the PDP as an MPT-RT, we can estimate the relative latencies of process routes and can test different sets of equality constraints and order restrictions on the parameters, as implied by the four process models. This has not been possible in the past due to the methodological constraints of the MPT approach, which relies solely on response frequencies.

To investigate the proposed process models, we conducted three model comparison steps. Model comparison 1 tested the overall fit of these models. This resulted in an acceptable model fit for the

DIM and the PCRM across all eight data sets but no acceptable model fit for the PCM and the GM. Both fitting models - the DIM and the PCRM - assume fast automatic and slow controlled process routes. Model comparison 2 tested constrained process latencies across conditions in search for a more parsimonious model. Latency parameters of both models indicated that all automatic process routes tend to have the same relative speed regardless of prime and target condition, whereas the relative speed of controlled process routes differ for weapon and innocuous object targets. This harmonizes with the finding that participants in general tend to be faster discriminating weapons compared to innocuous objects. Model Comparison 3 relied on the findings of the previous comparisons which allowed to compare more parsimonious versions of the PCRM and the DIM. Using the information criteria indices DIC and WAIC, this comparison suggested that the DIM is a more appropriate process model for the WIT than the PCRM. This is in line with previous reasoning of Klauer and Voss (2008) who argued that the DIM can explain that in studies with high accuracy rates, response bias due to prime race persists in response latencies. According to the DIM, overcoming the default response by controlled processing leads to slower response if automatic and controlled processes disagree than if both responses agree. The PCRM cannot explain this pattern easily because the latency of the controlled process is assumed to be independent of the outcome of the automatic process.
In conclusion, adopting the DIM as the process model underlying performance in the weapon identification task implies that automatic threat-stereotype associations interfere in weapon identification from the outset of each trial. Hence, controlled processes are required for both object discrimination and conflict resolution if the automatic process elicits an incongruent default response. In other words, object discrimination abilities and cognitive control for overcoming default responses both play a crucial role in identifying a target weapon correctly.

15:15-15:45

The Cognitions Reflected on Implicit Evaluations Can Be Both Felt and Inferred From Cultural Norms

Adam Hahn[1], Alexandra Goedderz[2], & Anne Weitzel[2]
[1]*University of Bath,* [2]*University of Cologne*

Research showing that people can accurately predict the patterns of their IAT scores towards ethnic and other social groups has raised the question of whether people can directly “feel” the cognitions reflected in implicit evaluations or infer them from social norms (e.g., “there is a societal bias against group X, so I will probably show it too”). We tried to shed light on this question by expanding the IAT score prediction paradigm from ethnic groups (comparison sample N = 359) to the domains of food (i.e., different baked goods, one Study, N = 105) and uniformed occupational groups (i.e., police officers, firefighters, doctors, soldiers, and construction workers, two studies, Ns = 195, 259). Participants were able to predict the patterns of their IAT scores towards food items with the same degree of accuracy as towards ethnic and social groups, despite much larger inter-individual variation in the food domain. Additionally, in the food domain, participants’ own predictions were accurate beyond culturally normative patterns, in that a random other participant’s predictions did not predict variance in individual participants’ IAT scores over and above their own predictions. Predictions were less accurate in the domain of uniformed occupational groups (where a normative pattern is less obvious and people show lower biases) than in the domain of ethnic groups, but still highly significant. A last study encouraged participants to either infer their scores from cultural norms or listen to their gut reaction when predicting their IAT scores towards occupational groups. Despite highly significant mean differences in predictions and manipulation checks between the conditions, the patterns of predictions were equally accurate in both groups. Together these findings indicate that because the cognitions reflected in implicit evaluations are partly culturally learned, they can be both inferred and

directly perceived. Discussion will center on what aspects of the cognitions underlying implicit scores people can or cannot consciously know.

Room 8: Emotions
Chair: Argaman Bell

14:15-14:45

Approach and withdrawal tendencies evoked by emotions and financial decision making
Maciej Pastwa & Kamil Imbir
University of Warsaw

Emotions are intuitively understood by people as negative or positive states, depressing or improving the mood. The aspect of emotions that may be at least as important in social cognition, is the tendency evoked by emotions to approach an object, act, or rather to avoid the object and withdraw from the activity (Plutchik, 1980). Positive emotions in general encourage approaching an object, but the negative emotions not always promote avoidance - anger in particular promotes approaching the object evoking it and acting, while it is perceived as a negative emotion.
Positive emotions are well known to promote more risky decisions, while negative ones lead to avoiding risk (O'Neill et al., 2008). In this research project we want to explore the influence of emotions evoking different behavioral tendencies on financial decision making, while the valence of the emotions is controlled. We picked two diads of emotions from the Plutchik (1980) wheel of emotions: happiness (approach tendency, positive valence) vs sadness (withdrawal tendency, negative valence) and anger (approach tendency, negative valence) vs fear (withdrawal tendency, negative valence).
In experiment one (N = 255) we asked participants to describe situations from their life that evoked emotions of happiness, sadness, anger and fear. There was also a control group, where participants described situations related to the idea of money. After describing the situations participants were asked to answer in a series of 24 decisions regarding picking a bet between less profitable, but with higher probability of winning, and more profitable, but obtaining the reward was less probable. Half of the trials had the 20% as the lowest probability assigned to the highest reward, while for the other half it was 80%.
We observed an interaction between the behavioral tendency evoked by emotions and the probability of winning - in the approach condition participants were willing to pick less probable reward in the 80% condition and more certain, but smaller reward in the 20% condition ($p < .05$). Participants in the approach condition were also picking more certain bets than the control group ($p < .05$).
In experiment two (N = 60) the stimuli used to evoke emotions were pictures from the NAPS database (Marchewka et al., 2014), selected based on the assessments on the scales of happiness, sadness, fear and anger. 60 pictures (10 for each emotion and 20 neutral, control pictures) were presented to participants during the Balloon Analogue Risk Task procedure (Lejuez et al., 2002). In the BART task participants pump a virtual balloon - playing longer is more risky, but also more rewarding. The results showed that the decisions regarding particular trials (pumps) were done slower in the withdrawal than in the approach condition ($p < .05$).
The results show that the decision-making process and the outcome of the decision is influenced differently by the emotions evoking approach or withdrawal emotional tendencies. What is more important in the context of this project, is that no significant differences were found between the emotions of happiness and anger when influencing the financial decisions, which may support the

hypothesis that the behavioral tendency evoked by emotions may be as important in influencing behavior as emotional valence. Further studies are planned, exploring the relation between emotions evoking approach and withdrawal tendencies and financial decision making.

14:45-15:15

When happiness knocks on your door: how do people process positive events in day-to-day life?

Hanxin Zhang & Julia Vogt
University of Reading

Happiness is considered important and pursed by most people (Rusting & Larsen, 1995; Tamir & Ford,2012). However, it was found that high level of valuing happiness could backfire and have negative impact on people's well-being. For instance, Ford et al. (2014) found highly valuing happiness leads to low well-being, and depression is associated with highly valuing happiness. Mahmoodi et al. (2019) replicated this finding in British samples by using questionnaires and found the link between valuing happiness and increased depression. They suggested that valuing happiness and depression is mediated by the impaired ability to control attention in emotional events.

We all experience positive events in our daily lives, from little things to big things. But can everyone recognize opportunities to be happy? It is found that prioritising positivity could be an effective approach to purse happiness, and it predicts well-being outcomes including positive emotions and depressive symptomology (Catalino et al, 2014).

Shah et al. (2018) found that resource scarcity draws attention and creates cognitive load. They presented a series of scenarios to participants and asked them to rate how likely would they have different thoughts in that scenario and found that poor people are more likely to have money/cost related thoughts in day-to-day events. Considering happiness as a form of resource, we used a similar method to investigate how do people process positive events in day-to-day life and its relationship with their level of valuing happiness, well-being and personality.

Recent research has shown that successful pursuit of happiness is associated with various, social and feasible ways to pursue happiness (e.g., Krasko et al., 2019). Ford et al. (2015) suggested that socially engaged pursuit of happiness plays a role in the relationship between valuing happiness and well-being. To look deep into how people would react to different positive events, we designed a series of scenarios that vary on the level of social engagement and feasibility (four categories: high social/high feasibility, high social/low feasibility, low social/high feasibility, low social/low feasibility). Each of them briefly describes a positive event that could happen in day-to-day life. Two pilot studies were conducted to rate the materials and twenty-eight scenarios were selected (seven for each category).

In Study 1, two hundred and seventy-eight Chinese participants recruited via online platform were presented with the selected scenarios. Participants were asked to rate how likely would they have certain thoughts in the presented scenarios, and how much happiness would they gain from them. Scales were also used to measure their level of valuing happiness, depression symptoms, socially engaged definition of happiness, subjective happiness, and personality. We found that participants responded the most to low social / low feasibility scenarios, and least to high social / high feasibility scenarios. The more depressed participants are, the less they respond to both categories of high social scenarios. When participants value happiness on a high level, the more they score on neuroticism, the less they respond to high social / high feasible scenarios.

We are currently running the second study with a sample of British undergraduate students, and we plan to run a third study soon to investigate whether we could replicate the findings with a larger western sample.

15:15-15:45

Cultural variations in attachment organization moderate attachment relationships with contextualized emotion decoding accuracy and inaccuracy

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It has been repeatedly argued and found that insecure attachment orientation is associated with emotion perception at individual level. The present study examined whether and how insecure attachment organization (avoidance, anxiety) at collective level, interacts with individual-level attachment effects on emotion decoding accuracy and inaccuracy. Collective avoidance is taken to signify weak-tie networks (small worlds) whereas collective anxiety is set to signify strong-tie networks (Kafetsios, 2021). We utilized a new model and method of Emotion Decoding Accuracy (the ACE, Kafetsios & Hess, 2022) which focuses on social context and the distinction between accuracy (perceiving the intended emotions) and inaccuracy (perceiving additional emotions to those expressed) and which has demonstrated ample internal and external-ecological validity across cultures and types of social interaction. Part of a preregistered online survey (osf.io/452bq) in twelve cultures (N = 2400, ages 18-36, M = 24.4, SD = 7.9, Greece, Germany, the UK, Spain, India, Ireland, Italy, Japan, Poland, Turkey, USA, and China) on culture and attachment orientation interactions, participants completed an accuracy in facial emotion decoding task (Kafetsios & Hess, 2022). Attachment orientations at individual level were assessed with the Experience in Close Relationships scale (Fraley et al., 2000) whereas, country-level attachment orientation scores were drawn from a research database that includes data from several countries Experiences in Close Relationships scale (Brennan et al., 1998). At individual level, results from multilevel random coefficient models found positive associations between emotion decoding accuracy and anxious attachment and negative relations to attachment avoidance. Conversely, both attachment anxiety and avoidance at individual level were positively associated with ACE inaccuracy. Importantly, the avoidance – accuracy negative relationship was attenuated in cultures overall higher on avoidant attachment and was strengthened in cultures higher on anxious attachment; the anxiety – inaccuracy positive relationship was attenuated in cultures higher on avoidant attachment and was strengthened in cultures higher on anxious attachment. The results provide important support for recent theorizing and evidence on culture-attachment relationships and point to links between structural aspects of social networks and contextualized emotion perception.

15:45-16:15

Better together? Peer presence effect on enjoyment and facial expressions during joint listening to audio clips

Argaman Bell[1], Liron Amichai[1], Inbal Ravreby[2], & Yaara Yeshurun[1]
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Background

The presence of a peer can influence individuals' performance and emotions in certain tasks and social interactions (Latané & Rodin 1969; Murcia et al., 2008). Facial expressions are also known to be affected by the presence of a peer (Fridlund, 1991), and to be related to our emotions (Ekman, 1969).
Aims
In this study, we set out to test whether the virtual (Zoom) presence of a friend shapes individuals' enjoyment and facial expressions while listening to audio clips. Moreover, we tested whether such an effect depends on the content of the audio. Finally, we explored whether seeing the friend plays a role in this effect.
Methods
This online experiment included three Presence groups: Zoom Friends, Zoom Sole and Sole without Zoom. Participants (n=184) listened to eight short (Msec=78.12, sdsec= 13.84) audios of four different Contents (Knock-knock jokes, Stand-Up, Body-language and Neutral) and rated their enjoyment after each clip (0-100 analogue visual scale). Participants listened to the first four audios with their eyes open and the following four audio clips with their eyes closed. Zoom participants were recorded for later facial expressions analysis, using Openface toolkit.
Results
Enjoyment rankings results demonstrated a significant Content*Presence interaction (F(6)=5.93, p<.001). Post-hoc comparisons revealed significant differences in enjoyment, depending on the audios content. We observed different enjoyment trends for different contents, but regardless of the trend's direction, the Zoom Sole group enjoyment ratings were always in between the Zoom friends' group and the Sole without Zoom group. Moreover, we found that with eyes open, participants' facial expressions (mainly happy expressions) were more intense while listening to an audio clip with a friend than alone, regardless of the enjoyment trend (Content*Presence*Expression interaction (F(15)=12.8, p<.001)). This presence effect attenuated when friends listened to the audio-clips with their eyes closed.
Conclusions
The virtual presence of a friend when hearing short audio clips not always results in greater enjoyment, but depends on the audio's content. The results also suggest that the zoom itself as a medium might evoke some sense of presence. Finally, when participants saw their friend on the screen while listening to the audio clips, they expressed almost double happy expression than the sole participants, an effect that disappeared when their eyes were closed. This suggests that facial expressions intensity might not be just a result of our enjoyment of an external stimulus, but also a way to communicate with others.

Room 9: Stereotypes and prejudice

Chair: Paul Bacher

14:15-14:45

Ideological Prejudice Is Stronger in Ideological Extremes (vs. Moderates)

Johanna Woitzel[1] & Alex Koch[2]
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People rate social groups as more moral and likable if they rate their ideology as more similar to the ideology of the self. This paper refers to this effect as ideological prejudice (e.g., Brandt & Crawford, 2020). There is a debate whether people's ideology – that is, being progressive versus being

conservative – moderates the effect size of their ideological prejudice (e.g., Brandt & Crawford, 2020, Badaan & Jost, 2020; Baron & Jost, 2019). In three observational studies, this paper contributes to this debate in three ways: First, we tested whether ideological prejudice is stronger in both progressives and conservatives compared to moderates. Second, we tested whether this extremeness asymmetry holds when controlling for stronger ingroup favoritism (i.e., higher perceived morality and likability of ingroups compared to outgroups) in ideological extremes compared to moderates. Third, we tested whether this extremeness asymmetry is explained by ideological extremes perceiving their own ideology as more important to the self than ideological moderates. In Study 1 (N = 700), people rated themselves and thirty groups randomly selected from a pool of one hundred and eighty-four real groups (e.g., Liberals, women, students). People rated a group as more moral and more likable if they rated its ideology as more similar to the ideology of the self. These morality-based and likability-based ideological prejudices were stronger in ideological extremes than moderates. In pre-registered Study 2 (N = 974), people rated themselves and the thirty real groups listed most frequently by other people. Study 2 measured likability and morality of group in combination instead of separately. Likability in combination with morality is known as communion (Koch et al., 2016; 2021). In line with Study 1, people rated a group as more communal if they rated its ideology as more similar to the ideology of the self. Communion-based ideological prejudice was also stronger in ideological extremes than moderates. This extremeness asymmetry held when controlling for stronger ingroup favoritism in ideological extremes compared to moderates. Controlling for higher perceived importance of own ideology in ideological extremes (vs. moderates) decreased the effect size of stronger communion-based ideological prejudice in ideological extremes (vs. moderates). Thus, Study 2 provides suggestive evidence that ideological prejudice was stronger in ideological extremes than moderates because ideological extremes perceived their own ideology as more important to the self compared to ideological moderates. Pre-registered Study 3 (N = 633) generalized Study 2's findings from affective-cognitive ratings of the groups' communion to communal behavior towards groups (i.e., sharing resources with the same groups as in Study 2). People shared more money with a group (and kept less money for themselves) if they rated its ideology as more similar to the ideology of the self. This behavioral generosity-based ideological prejudice was also stronger in ideological extremes than moderates and again, this extremeness asymmetry held when controlling for stronger ingroup favoritism in ideological extremes compared to moderates. In line with Study 2, controlling for higher perceived importance of own ideology in ideological extremes (vs. moderates) decreased the effect size of stronger behavioral generosity-based ideological prejudice in ideological extremes (vs. moderates). In addition to Studies 1-3, the paper discusses four supplemental experimental studies that further corroborated that higher importance of own ideology explains why extremeness of own ideology magnifies ideological prejudice. Stronger ideological prejudice in ideological extremes (vs. moderates) means that conservatives' preference for conservative over moderate groups is stronger than moderates' preference for moderate over conservative groups. And it means that progressives' preference for progressive over moderate groups is stronger than moderates' preference for moderate over progressive groups. Thus, ideological polarization – more ideological extremes and less ideological moderates – is divisive even if the ideological similarity between ideological extremes and the groups that they rate is the same as the ideological similarity between ideological moderates and the groups that they rate. Another relevant implication of the paper is that interventions against the dark side of ideological prejudice (i.e., disliking, distrusting, avoiding etc. ideologically dissimilar groups; e.g., Lammers et al., 2017; McCarty et al., 2016; Motyl et al., 2014) benefit from tackling the extremeness as well as importance of people's own ideology. Decreasing the extremeness of their ideology would decrease the extent of ideological dissimilarity between a random rater and a random group. Thus, raters would like, trust etc. groups more, on average. Decreasing the importance of their ideology would decrease the effect of ideological dissimilarity between raters and groups. Thus, raters would like, trust etc. groups even more, on average.

14:45-15:15

Sexual objectification impact social interaction: less mimicry responses toward objectified women
Daniela Ruzzante & Jeroen Vaes
University of Trento

Sexual objectification occurs whenever a woman is primarily seen as a body or a collection of body parts for others to evaluate and implies the denial of humanity and human characteristics. While research has mainly focused on sexual harassment and aggression as the main behavioral consequences of sexual objectification, only few studies have tried to focus on more subtle consequences towards sexually objectified targets that might impair social interaction more in general. On this regard, spontaneous mimicry represents a key element of any social relationship that stimulates closeness to others. Vice-versa, a lack of mimicry can inhibit smooth interactions and decrease the liking of the interaction partner, leading to avoidance of such interactions in the future. Mimicry can indeed be though of as the unconscious and unintentional imitation of other people's postures, gestures, mannerism, moods and emotions that allow people to understand other's emotions and intentions. Therefore, across two experiment we were able to demonstrate how sexual objectification can influence and impair unconscious spontaneous mimicry. Indeed, participants' electrophysiological facial movements were registered while videos of objectified and non-objectified female targets expressing happiness and anger were presented. Results demonstrated how both male and female participants showed less mimicry behavior only when sexually objectified women were presented regardless of the expressed emotion. Given the fundamental role of mimicry in creating successful everyday interpersonal interactions, the results of this research advance our understanding on the more subtle, but daily consequences of sexual objectification.

15:15-15:45

An Examination of Implicit and Explicit Social Group Attitudes and Stereotypes Across 34 Countries
Tessa E.S. Charlesworth[1], Mayan Navon[2], Yoav Rabinovich[1], Nicole Lofaro[3], & Benedek Kurdi[4]
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A basic motivation of psychological research is to investigate whether, and if so to what extent, psychological findings generalize or vary across countries and cultures. Within research on implicit and explicit attitudes and stereotypes, investigations of cross-country differences have so far remained limited by a lack of data available for multiple attitude topics across multiple years and provided in the countries' native language(s). Here, we introduce such a dataset - The Project Implicit:International (PI:International) dataset. PI:International comprises 2.3 million tests for 7 topics (race, sexual orientation, age, body weight, nationality, and skin-tone attitudes, as well as men/women–science/arts stereotypes) using both indirect (Implicit Association Test; IAT) and direct (self-report) measures collected continuously from 2009 to 2019 from 34 countries in each country's native language(s). We review our validation efforts, including tests of internal consistency, convergent validity, and known-groups validity, all yielding adequate psychometric properties. Next, we discuss the overall strength and variability of implicit and explicit attitudes and stereotypes around the world, evident using this dataset. First, all 34 countries showed a pro-dominant bias in attitudes and stereotypes, in nearly all tasks, pointing to a widespread pervasiveness of both implicit and explicit attitudes and stereotypes around the world. Second, despite this overall tendency, countries and tasks

varied considerably in their level (strength) of bias. On average, countries showed the largest implicit pro-dominant bias on the Age task and the lowest bias on the Sexuality task; however, the largest cross-country variation in implicit pro-dominant bias appeared on the Sexuality task, while the smallest cross-country variation in bias appeared on the Age task. Self-report measures assessing preference between social groups directly showed the largest pro-dominant bias on the Nationality task, and the smallest bias on the Sexuality task, but, as with implicit attitudes, countries varied considerably in their level of bias within each task. Lastly, for self-report measures assessing preference indirectly (using a feeling thermometer), the largest pro-dominant bias appeared on the Nationality task, while the smallest bias appeared in the Age task. We discuss several exciting research directions that can be pursued using the PI:International dataset, and present initial results from a first research project that investigates the clustering of countries by patterns of implicit and explicit attitudes and stereotypes.

15:45-16:15

Assessing stereotypically biased responses in alleged knowledge tests? An Error-Choice Test on Prejudice against Muslims and Islam

Paul Bacher & Sarah Teige-Mocigemba
Philipps-Universität Marburg

In the last decades, various indirect measures have been developed to unobtrusively assess prejudice. Despite their great impact on the field, there is an ongoing demand for indirect measures with solid psychometric properties and a sound theoretical foundation (Fazio & Olson, 2003; Oswald et al., 2015; Teige-Mocigemba et al., 2017).

We developed an indirect measure of prejudice against Muslims and Islam based on the so-called Error-Choice Technique. This technique is based on the idea that interindividual differences in attitudes can be assessed by the systematic errors people make in specially designed knowledge tests. We followed the assumption that participants' responses (and the errors they make) are stereotypically biased and, therefore, should reveal underlying prejudice. This assumption is supported by models explaining how a biased memory encoding or accessing and a biased use of statistical information is linked to prejudice (e.g., Crandall & Eshleman, 2003). We developed and tested two versions of an Error-Choice Test on Prejudice against Muslims and Islam (ECT-P). In both versions, participants were presented knowledge questions on Islam and living circumstances of Muslims and asked for numeric estimations.

In the first version, the Error-Choice items had a multiple-choice response format. Four incorrect response options were presented which are supposed to reflect gradual levels of stereotypes and were therefore scored from "1" to "4". The questions were difficult so that even respondents with advanced knowledge should not discover the absence of correct responses. To disguise the purpose of the test, the Error-Choice items were presented interspersed with simple distractor questions on generally known knowledge about Islam and Muslims, with the correct answer included in the response options. In Study 1 (N = 176), we showed that the multiple-choice version of the ECT-P had a satisfying internal consistency (Cronbachs α = .87), and that it was positively correlated with two self-report measures of prejudice (convergent validity) and uncorrelated with a cognitive estimation measure (discriminant validity). Further, the ECT-P was less correlated with the motivation to act without prejudice than the two self-report measures of prejudice. Moreover, the motivation to act without prejudice moderated the relationship between the ECT-P and self-reported prejudice such that the correlation was lower for participants with a high motivation to act without prejudice. In Study 2 (N = 190), we tested the ECT-P with the same instructions and questions as in Study 1, but with an open response format. This

version of the ECT-P was also internally consistent (Cronbachs α = .88), and we replicated all significant and non-significant results of Study 1.
Overall, the two studies indicate that the ECT-P offers a robust, reliable and rather unobtrusive measure of prejudice that seems to be less easily distorted by response tendencies, like the motivation to be seen as unprejudiced, than self-report measures. We discuss the usefulness of the ECT-P as a supplement for assessing prejudice and argue that by measuring stereotypically biased responses, the ECT-P might give insights into the cognitive mechanisms that are related to prejudice and might play a role in its formation. We further discuss future studies on examining the predictive validity of the ECT-P for discrimination as well as some challenges of this measurement approach.

Room 6: Social judgment
Chair: Marie Isabelle Weißflog

16:45-17:15

Diagnosticity in Personnel Selection: Effects of the Big Two on Sampling and Judgment Behavior
Johannes Prager, Linda McCaughey, & Klaus Fiedler
Heidelberg University

Judgments and decisions from information samples require the integration of available input stimuli in order to come up with a justified and accurate impression. Personnel selection is such a scenario, where recruiters collect information on the applicant in order to being able to judge whether the candidate would fit the open job position. Such job-fit judgments are sometimes easy and can be made with high confidence, sometimes the situation remains ambivalent even after having observed information on the candidate. This difference in the value and impact of information is determined by diagnosticity. We define the diagnostic value of a piece of information by the likelihood ratio of this information given that the candidate fits the open position compared to non-fit to the position.
In order to test for diagnosticity effects, we relied on the big two (agency and communion) and on valence (positivity vs. negativity). Negative communal and positive agentic behaviors are more diagnostic than positive communal and negative agentic behaviors (Skowronski & Carlston, 1989). The diagnostic big two – valence combinations are unexpected, easy to confirm and they discriminate from other individuals (even a liar tells the truth most of the time; even a top-athlete has a bad day; the reversal is rarely the case). Diagnostic information results in stronger judgments, higher levels of confidence, and if the judging agents have control over the amount of information they want to see, smaller information sample size. However, diagnosticity is not only dependent on the information itself, it also depends on the current hypothesis to be tested. For the given personnel selection task, we manipulated this by providing either an agency-focused (e.g. car mechanic) or a communion-focused (e.g. child care worker) job description. Respective job candidates were characterized by behavioral summaries that were meant to be the results of professional assessment center observations. Job descriptions contained either agentic or communal information and they varied with respect to the proportion of positive behaviors in the sample. Participants could decide for themselves on when to stop the sequentially unfolding sample of behavior summaries. After stopping the sample, they reported their job-fit judgment and confidence.
We could confirm the expected diagnosticity pattern of input values: candidates characterized by negative communion and positive agency behaviors were judged more strongly and confidently and samples were stopped earlier compared to positive communion and negative agency behaviors. But, it also mattered for which job the candidate applied (i.e. a communion- vs. agency centered job): When the big two of job profile and candidate behavior matched, we observed earlier stopping of samples, stronger and more confident judgments compared to non-fit. We could therefore confirm a classical social cognition hypothesis, namely the differential diagnosticity of the big two and valence combinations in a personnel selection context. By letting participants determine the size of a sequentially unfolding information sample, we could also measure the impact of diagnosticity on the required amount of information. Additionally, we confirmed that the current task determines

diagnosticity as well: The job profile also determined which characteristics made a candidate fit the position.

17:15-17:45

The interplay between morality and competence dimensions and the economic status. The role of verbal and non-verbal cues in first impression formation and impression updating

Alessia Valmori, Francesca Carotta, Luciana Carraro, & Luigi Castelli
University of Padova

The Stereotype Content Model suggests that competence and warmth (also divided in sociability and morality, Fiske et al., 2002) are the key dimensions in social perception. According to previous literature, social groups are perceived having or lacking these two characteristics. For example, high-status groups are generally perceived as high in competence but low in warmth, whereas the pattern is reversed for low-status groups. Moreover, recent studies demonstrated the key role of morality over sociability and competence when forming and updating impressions. The main aim of the present work is to explore further the connection between morality and competence with the perception of the economic status of male and female targets. Specifically, in two studies we investigated how information about competence vs. morality shapes participants' impression about strangers' economic status (Study 1), and we assessed participants' judgments about the competence and warmth of strangers comparing the role of verbal and non-verbal information about their economic status (Study 2).

In Study 1 (N = 104) we asked participants to indicate the perceived economic status of a target (male vs. female) based solely on a positive vs. negative information of competence vs. morality. After expressing their opinion (i.e., T1; first impression), a new information about the target was given, always opposite in valence and dimension (i.e., T2; updating). Competence emerged as central when judging the target's economic status (T1), polarizing the judgments as a function of the valence of the information. The same was found in updating the judgments (T2), and, importantly, the pattern was even more extreme for male targets compared to female targets.

In Study 2 (N = 77), participants were presented with both verbal information (i.e., the bank account of the target reporting high vs. low economic status) and non-verbal information (i.e., pretested faces suggesting high vs. low economic status) of the economic status of a target. Then, they were asked to evaluate each target on 14 traits related to competence, warmth, and morality. Specifically, we decomposed the morality dimension according to the Moral Foundations Theory (MFT). Results showed that both verbal and non-verbal information about high (vs. low) economic status yielded to more positive judgments on the competence (vs. morality) dimension and more negative judgements on the morality (vs. negative) dimension. Focusing only on incongruent information, results suggested that judgments regarding the warmth dimension for female targets are influenced more by the non-verbal information, whereas for male targets, participants were more influenced by the verbal information. Taken together the two studies further demonstrate the strict interplay between morality and competence and the perception of the economic status. Moreover, these studies confirmed previous literature showing that gender differences are still present when evaluating unknow individuals along the competence and warmth dimensions and when considering their economic status. Specifically, Study 1 revealed the key role of the competence dimension when expressing opinions about the economic status of strangers and the extreme importance of this dimension for male targets compare to female ones, whereas Study 2 showed that participants are influenced by different cues when judging male (i.e., verbal cues) vs. female (i.e., non-verbal cues) targets.

17:45-18:15

Cognitive Anthropomorphism of Humanoid Robots: Evidence from a Scrambled Face Task

Francesca Cocchella, Alessandra Sacino, & Luca Andrighetto
University of Genoa

Robots are expected to become more and more available in ordinary life (Diel et al., 2012). For this reason, research in social cognition is focusing on understanding how individuals perceive robots and which factors can increase their acceptance in the social environment. Despite some debate (see Mori 2012), anthropomorphism is considered a crucial aspect to elicit people's positive perception of robots (e.g., Fink, 2012). However, until now anthropomorphism has been conceived as a "second-order" process and studied in terms of "content", i.e., the inductive attribution of human characteristics to robots.

Our recent research (Sacino et al., 2022) aimed at understanding if humanoid robots (HR) are anthropomorphized on a cognitive level as well, i.e., if they are perceived as social stimuli, via the configural processing, which requires the perception of the spatial relations among the stimulus components. For this purpose, we used the inversion effect (IE) paradigm (Zlotowski & Bartneck, 2013; Cogoni et al., 2018), according to which social stimuli are recognized more accurately when presented in an upright orientation rather than inverted. Results suggested that the entire silhouette of HR is cognitively elaborated similar to humans, regardless of their levels of human-likeness. However, considering their faces, preliminary evidence (Exp. 3) suggested that the level of human-likeness affects this processing, so that the IE seems to emerge only for the faces of HR with higher levels of human-likeness.

The research presented here aimed to further deepen these relevant findings. We conducted 2 experiments (N = 216) to investigate whether people cognitively anthropomorphize face of HR depending on the levels of their human likeness. For the first time in this field, we employed a scrambled face task (Reed et al., 2006), which is a more proper paradigm to analyse the cognitive elaboration of faces than the IE. Scrambled faces were created by manipulating the features of the face and the relation among the components mainly in two ways: a) first-order relation modifications, where the relative positions of the parts (i.e., nose, eyes, mouths) are swapped, and b) second-order relation modifications, where the metric distances of the parts are enhanced or diminished. Similar to the IE, the scrambled face effect proves that social stimuli are recognized less accurately when presented with a disruption of the stimulus parts relations. On the contrary, the non-social stimuli (i.e., objects) are not subject to this, since they are processed via an analytical process. In our adapted version of the scrambled face tasks, we used ad hoc prepared human faces, whereas we selected robot faces by prototypes from the ABOT database (http://abotdatabase.info/).

Mixed-model analyses revealed that the scrambled face effect emerges both for human and robot faces, whenever the first-order relations between the parts (relative positions) were distorted (Experiment 1). However, the effect was significantly wider for human faces than robots. Even more interestingly, when the second-order relations (metric distances) were distorted (Experiment 2), the scrambled face effect emerges for human faces only.

Taken together, these findings suggest that the cognitive elaboration of HR is influenced by different aspects of the configural processing, and that the faces of robots follow a peculiar pattern of elaboration than their entire bodies.

18:15-18:45

Ingroup or the ones at the top? How belief- vs. status-indicative dimensions of social difference shape attitudes in the face of multiple group memberships

Marie Isabelle Weißflog, Lusine Grigoryan, & Emily Galster
Ruhr-Universität Bochum

The way people perceive and interact with each other socially is shaped not only by a single dimension of similarity or difference, such as their ethnicity only, but by the multiple group memberships of each individual involved, such as their ethnicity, their gender, their age group, etc. When studying intergroup relations, we must acknowledge this complexity. One approach to bring more clarity to the issue is looking for similarities and differences in the ways that different social dimensions work. We focus on the distinction between belief-indicative and status-indicative dimensions, i.e. dimensions that people think are especially informative regarding warmth/communion and competence/agency, respectively. We investigate if information about a target's group membership on belief- and status-indicative dimensions influences participants' attitudes toward them in different ways.
We are in the process of conducting pre-registered online factorial survey experiments in three countries (Germany, UK, US). We are aiming to gather diverse samples including people from all groups represented in the study design. Participants read vignette descriptions of targets that contain information on nine social dimensions (age, gender, sexual orientation, ethnicity, migration background, religion, income, occupation, political attitude) that are varied across two or three levels, depending on the dimension. They report attitudes toward each target. We also include measures of entitativity, essentialism, belief- and status-indicativeness for each dimension, as well as social status for all groups on each dimension.
We expect status-indicative dimensions to produce stronger preference for high-status groups, and belief-indicative dimensions to produce stronger ingroup bias. We expect this pattern both within participants and across participants and countries.

Room 7: Information processing

Chair: Guy Grinfeld

16:45-17:15

Self-Relevance and the Activation of Attentional Networks

Saga Svensson[1], Marius Golubickis[2], Sam Johnson[1], Johanna K. Falbén[3], & Neil Macrae[1]
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Recent theoretical accounts maintain that core components of attentional functioning are preferentially tuned to self-relevant information. Evidence in support of this viewpoint is equivocal, however, with research overly reliant on personally significant (i.e., familiar) stimulus inputs (e.g., faces, forenames) and a diverse range of methodologies. Rectifying these limitations, here we utilized arbitrary items (i.e., geometric shapes) and administered the Attention Network Test (ANT) to establish the extent to which self-relevance (vs. friend-relevance) moderates the three subsystems of attentional functioning — alerting, orienting, and executive control. The results revealed that only executive control was sensitive to the meaning of the stimuli, such that conflict resolution was enhanced following the presentation of self-associated compared to friend-associated shapes (i.e.,

cues). Probing the origin of this effect, a further computational analysis (i.e., Shrinking Spotlight Diffusion Model analysis) indicated that self-relevance facilitated the narrowing of visual attention. These findings highlight when and how the personal significance of otherwise trivial material modulates attentional processing.

17:15-17:45

Demand for Harmful Information in a Decision Making Context

Hadar Ram[1], Cheryl Wakslak[2], & Scott Wiltermuth[2]
[1]*Bar-Ilan University,* [2]*University of Southern California*

In today's information age, people can access information incredibly easily. While previous research on information-seeking demonstrated a desire for useless and irrelevant information (Baron et al., 1988; Eliaz & Schotter, 2007; Tversky & Shafir, 1992) the tendency to seek harmful information in decision-making context is yet to be explored. In this research, we examined the tendency to seek decision-harming information, which we define as information that will have negative impact on the quality of the decision most individuals will reach, even when they know that the information may lead them to make sub-optimal decisions. Five studies (three pre-registered) demonstrate that a sizeable subset of people seek decision-harming information. The effect held regardless of whether participants were informed that the information was harmful (Studies 1-4), or the participants themselves identified the information as harmful (Study 5). Participants sought out such information across a variety of decision contexts that included sports (Study 1 & 2), healthcare (Study 3 & 4), and hiring (Study 5). This demonstrates the prevalence of this tendency, as well as increases the ecological validity of our research. When examining the role of the self in this process, we found that people's preference for harmful information was similar when making a decision for themselves or for another person. This suggests that such information preference does not merely derive from people's belief that norms about not being able to ignore information do not apply to them (Pronin, et al., 2002). It also suggests that a "burning" form of curiosity according to the visceral-factors account (i.e., a strong affective draw to knowing information; Loewenstein, 1994; 1996) is unlikely to be a primary driver of such information preference as well. We further explored and found that information preference was associated with people's less burning forms of curiosity and with lay beliefs about information. Specifically, seeking harmful information was associated with the belief in the general utility of information in a decision-making context, and underappreciation of its risk. I will conclude with a discussion on ongoing projects that examine potential moderators (e.g., confidence, expertise) and how to develop strategies to help individuals efficiently consume information.

17:45-18:15

Rivals Reloaded – Adapting to sample-based speed-accuracy trade-offs through competitive pressure

Linda McCaughey, Johannes Prager, & Klaus Fiedler
Heidelberg University

Adaptive decision makers need to respond suitably to their environment, its informational structures and changes thereof. Specifically, while engaging in search for information about options in order to decide between them, they need to avoid making too hasty decisions based on too little or undiagnostic information, but also take care not to overdo it and collect unnecessary additional information. However, when it comes to adaptively regulating the invested time to attain information

about choice options, recent results give little cause for optimism about humans' adaptivity (Fiedler et al., 2021). In a sample-based speed-accuracy trade-off task, participants had to make as many correct choices as possible during a limited period of time to maximise their payoff. Basing decisions on little information and completing many of them was by far the most profitable strategy. In contrast, participants confronted with this task demonstrated remarkable persistence in their emphasis on accuracy, employing sample sizes multiple times larger than they should have, thereby foregoing substantial proportions of the possible payoff. Various interventions failed to elicit notably faster strategies. Participants seemed unable or unwilling to exert the necessary metacognitive monitoring to infer from their experiences that faster strategies were more profitable.

In contrast to this conspicuous failure of all attempts to induce small-sample strategies, research by Phillips et al. (2014) points to social competition as an effective way to induce, or even enforce, faster decisions based on less information sampling. They found that participants' information search of the outcomes of two lotteries they had to decide between was greatly reduced when a rival participant was introduced. When faced with the danger of not being able to choose for themselves because the rival participant might be faster, participants make do with surprisingly small samples.

We set out to transfer this idea to the speed-accuracy trade-off paradigm to assess whether participants' performance could be improved by introducing a competitive element. As in Fiedler et al. (2021), participants had to make as many correct decisions between two options as possible in a limited amount of time. The samples of binary information that the decisions were based on grew over time, so spending more time on the individual decisions led to higher chances of them being correct (which led to a gain as opposed to a loss for an incorrect decision), but also resulted in less decisions overall. The newly introduced simulated rival observed the same samples unfolding and whoever terminated the decision search first was entitled to make the decision, while the other party had to wait. Thus, through the introduction of the rival spending more time on individual decisions bore the additional risk of being pre-empted by the rival and not being able to decide at all.

Our experiment was designed to distinguish adaptivity from pseudo-adaptivity, that is, behaviour adapted both to the competitive pressure and the constraints of the speed-accuracy trade-off task, which would last even when the competitive pressure was no longer present, as opposed to pseudo-adaptive behaviour, which looked appropriate while the competitive pressure was present, but would revert to the accuracy-focused strategy as soon as the competitive pressure disappeared. Hence, our design did not only feature a block that included a rival in the speed-accuracy trade-off task to induce competitive pressure, but also a second block that consisted of the standard speed-accuracy trade-off task as in Fiedler et al. (2021). Further, we wanted to assess which aspects of the complex social competition intervention might be driving the potential effect. To check whether actively responding to the competitive pressure was a necessary aspect of the intervention, in addition to an active rival group, we also included a passive rival group, in which participants observed two simulated agents compete against each other. To assess whether it might even suffice to just observe someone employing a fast, small-sample strategy without a competitor, we included a passive condition without rival. Together with the control condition (who actively engaged in the standard task without rival), this resulted in four conditions that differed from each other in Block 1, with two playing actively either with or without rival, and two observing the equivalent task being played by two rivals or just one player.

Our results (N=104) showed that including a rival in the task did indeed induce a much faster strategy compared to the control condition playing the standard task (both in Block 1) in Block 1, $t(48)= -5.36$, $p < .001$, $d=1.52$. Hence, the rival intervention used by Phillips et al. (2014) could be successfully transferred to the speed-accuracy trade-off paradigm. However, as soon as the rival was removed and participants had to engage in the standard non-competitive task in Block 2, they reverted to a slower strategy, almost doubling their employed sample size, $t(26)= -4.34$, $p <; .001$, $d = -0.84$. Nevertheless, their strategy was still more speed-focussed than the slow default of the control group in Block 2, who

never competed against a rival, β = .29, t(48) = 2.57, p = .012. The stronger speed focus of the rival condition turned out not to be a specific effect of the social competition intervention, as the rival condition's sample size employed in the standard task did not differ from the sample sizes of the two observation condition in the standard task (ps >.145).
So while some transfer of the competition-induced speed-focus to the standard task did occur in Block 2, the fact that participants reverted to a slower strategy showed that their reaction to the competitive pressure did not lead to improved adaptation to the task constraints. Instead of efficient metacognitive monitoring and control being at play, it seems more likely that it was the mere exposure to faster strategies that carried over in a superficial way. This is further supported by the lack of specificity of social competition in causing a slightly stronger speed focus in Block 2. It seems that merely the exposure to a fast strategy in Block 1 caused the difference to the control condition, who never experienced such a fast strategy. Hence, social competition does not bring about the necessary metacognitive monitoring and control that could lead to actual adaptation to the constraints of the speed-accuracy trade-off task and that could result in a transferable and lasting improvement of performance.

18:15-18:45

Verbal information enhances averaging of experienced information

Guy Grinfeld, Marius Usher, & Nira Liberman
Tel Aviv University

When making estimations and evaluations, people may rely on information from at least two sources: Direct, personal experience and verbal (or otherwise symbolic) communication from other people. In many situations, socially communicated information comes on top of personal experience and needs to be integrated into it. The need to integrate personal experience with social communication has been postulated by central psychological theories of social learning (e.g., Bandura, 1977; Festinger, 1954) and cultural learning (Henrich, 2015). Nevertheless, little is known about the process by which such integration occurs.
In two studies (total N = 231, one pre-registered) we explored how introducing communicated information changes the way experience is represented and used to reach an evaluation. More specifically, we asked: How does verbal information alter experience-based estimations? We suggest that because experience-based and socially acquired knowledge are represented in different ways and therefore do not "speak the same language," integrating them requires "translation" and propose that such translation involves representing personal experience in a more abstract way.
To test this prediction, we used the value psychophysics paradigm (Tsetsos et al., 2012; Usher et al., 2019) and conceptualized the accuracy of estimating the average as reflecting the efficiency of abstraction. Participants in a crowdsource platform estimated the average of sequences of fast-paced numbers that represented bonuses that different providers on that platform ostensibly paid. In the Experience-only condition, participants estimated the average and then predicted what the provider would pay the next time. In the Anticipating-integration condition, after estimating the average, participants read about the provider's plans to change bonuses and then predicted what the provider would pay next time. In both cases, we looked at the accuracy with which participants averaged the numeric values that they experienced.
We found that anticipating integration of verbal information into the experienced values enhanced the accuracy with which experienced values were averaged, implying more abstract representation of personal experience. In our experiments, each value represented a benefit paid by a specific provider on a specific occasion. Each such value reflects the provider's disposition in addition to noise, whereas

the average of a series of such values represents the disposition in a less noisy manner. The average, in contrast to individual values, is not directly experienced but rather must be abstracted from experience. We found that estimations of the average were best described by a leaky-integration model (Usher & McClelland, 2001) that included four terms: (1) order effect (exponential), (2) regression to the midpoint of the scale (which was also the global average), (3) constant bias, and (4) noise. We found less noise in the Anticipating-integration condition. We did not find evidence for differences in bias or in leak.
Our results demonstrate that anticipating verbal information enhanced accuracy of averaging. The benefit of being exposed to other people's experiences has long been noted. Typically, this benefit is thought to be in the new information that such a perspective might provide. Our results suggest yet another benefit for learning about other people's experiences: it might help us represent our own experience in a more accurate, less noisy way.

Room 8: Morality

Chair: Konrad Bocian

16:45-17:15

How we judge others in the face of an immoral daily-life act? A dynamic and multifactorial investigation

Aurore Gaboriaud[1], Flora Gautheron[1], Jean-Charles Quinton[1], & Annique Smeding[2]
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For the last fifteen years, moral judgments and their underlying decision processes have been increasingly studied from a dynamic and multifactorial perspective rather than from a binary approach (e.g., dual processes). Among the plural sources of influence in our moral decisions, the agent's intent and his or her causal role in the situation–as well as the severity of the outcome itself–have been demonstrated as key and robust influences over our moral decisions, particularly on our punitive judgments. In addition, the psychological factor of perceived social distance between the self and the others (close vs. distant) may be one of the still relatively understudied factors influencing our moral judgments. We generally judge our own behaviors in a more favorable way than others' behaviors, in accordance with the robust bias of self-positivity. But does this principle hold true in the field of morality? Indeed, findings regarding this question are to some extent contradictory in the current literature. The first aim of the present research was to study the influence of the agent's intent, the action outcome, and the agent's causality (i.e., the 'traditional' factors) on our moral punitive judgments. We thus aimed at identifying their main and interaction effects during the decision-making process by embedding moral scenarios into a mouse-tracking paradigm (Study 1, N= 80). The second aim was to subsequently test whether the influence of these factors varied depending on the type of moral judgment at stake (i.e., blame vs. wrongness judgments) (Study 2, N= 145). A third aim was then to test the impact of social distance on moral judgments through the same experimental paradigm (Study 3, N= 84). Results of these three pre-registered studies revealed significant main effects for intent, outcome, and causality on punishment judgments, as well as significant but less stable interaction effects between intent and causality. However, study 2 failed to demonstrate clear differentiated influences for these factors depending on the type of moral judgment (blame vs. wrongness judgments). Finally, in study 3, beyond the replication of the main effects of intent and causality, we did not find an effect of social distance (i.e., close vs. distant relationship toward the

agent being judged) on moral judgments. In an exploratory vein, we also analyzed mouse trajectories in each study to grasp the dynamics of these various effects. This allowed detecting the time course of each factor's influence during the decision process. The current results thus replicate and extend past findings on moral judgment, and provide initial evidence that, despite some persistent challenges, the mouse-tracking technique represents a promising tool to study moral decision-making. New operationalizations of social distance are subsequently discussed.

17:15-17:45

Helping the ingroup versus harming the outgroup: Evidence from morality-based groups

Lusine Grigoryan[1], San Seo[1], Dora Simunovic[2], & Wilhelm Hofmann[1]
[1]*Ruhr University Bochum,* [2]*Jacobs University Bremen*

The discrepancy between ingroup favoritism and outgroup hostility is well established in social psychology. Under which conditions does "ingroup love" turn into "outgroup hate"? Studies with natural groups suggest that when group membership is based on (dis)similarity of moral beliefs, people are willing to not only help the ingroup, but also harm the outgroup. The key limitation of these studies is that the use of natural groups confounds the effects of shared morality with the history of intergroup relations. In two preregistered experiments, we test the effect of morality-based group membership on intergroup behavior using artificial groups that help disentangle these effects. We use the recently developed Intergroup Parochial and Universal Cooperation (IPUC) game which differentiates between behavioral options of weak parochialism (helping the ingroup), strong parochialism (harming the outgroup), universal cooperation (helping both groups), and egoism (profiting individually). Two pre-registered studies (N=129 and N=396) suggest that morality-based groups exhibit less egoism, more weak parochialism, more universal cooperation, and less strong parochialism. These findings contradict earlier evidence from natural groups and suggest that (dis)similarity of moral beliefs is not sufficient to cross the boundary between "ingroup love" and "outgroup hate". The third and final preregistered study, for which we are currently collecting the data, aims to replicate these findings in a different cultural setting and test the mediating role of trust in this process.

17:45-18:15

Moral Deeds Before or After Affection? When and How Moral Information Moderates the Impact of Liking Bias on Moral Character Judgments

Konrad Bocian, Katarzyna M. Szarek, Katarzyna Miazek, Wieslaw Baryla, & Bogdan Wojciszke
SWPS University

Research suggests that moral character judgments are prone to the liking bias because liked people are morally superior to disliked or neutral ones. However, whether moral information about their past behavior would moderate the impact of liking bias on moral character judgments is still an open empirical question. In Study 1 (N = 653), the liking bias was limited when moral information about the target was introduced after the attitude manipulation. In preregistered Study 2 (N = 601), the liking bias was eliminated when the moral information about the target appeared before the attitude manipulation. Study 3 (N = 398) confirmed that participants updated their moral character judgments when moral information was presented after the attitude manipulation. However, when moral information appeared before the attitude manipulation, updating of moral character impression did not occur. Further, analysis of participants' changes in moral character judgment certainty revealed that interpersonal liking and disliking produced more substantial uncertainty about others' moral

character than moral information about their past. As a result, moral character judgments biased by attitudinal influences were more amenable to impression updating than judgments grounded on information about others' moral past. Therefore, we present the first evidence that moral information changes moral character impressions biased by interpersonal attitudes, but interpersonal attitudes do not impact moral character impressions grounded on moral information. We propose that certainty about others' moral character explains when and how moral information moderates the impact of attitudinal influences on moral character inferences.

Room 9: Social inequality

Chair: Joelle-Cathrin Flöther

16:45-17:15

Tackling inequality: The role of cognition and emotion in predicting support for wealth redistribution

Silvia Filippi, Bruno Gabriel Salvador Casara, Caterina Suitner, & Anne Maass
University of Padova

Progressive taxation is an effective strategy to reduce economic inequality. Despite this, support for this form of wealth redistribution is often very low. Two key elements in tax aversion are the lack of understanding of the tax system and the negative emotions related to taxes. Nevertheless, no study has yet investigated these factors in relation to progressive taxation. Specifically, we here focus on income progressive taxes, a form of redistribution that compensate existing inequities by gathering higher rates from top earners, while working as deterrent from engaging in aggressive negotiation for ever-increasing wages. Through three studies (N total = 663) we tested the relationship between cognition (understanding of the progressive tax system), emotion (negative emotions related to taxes), and attitude towards progressive taxation. Using a network analytic approach, a first exploratory study (N = 113) evaluated which emotions were most closely linked to paying taxes in a word association task. Results revealed that the emotions that were most mentioned were anger and anxiety. Study 2 (N = 150) investigated the role of emotion and cognition on support for progressive taxation, founding that both factors are relevant predictors. Study 3 aimed at replicating results found in Study 2 using a larger sample size and pre-registered hypotheses (N = 400). Results of Study 2 and 3 were consistent, showing that support for progressive taxation depends both on a lack of understanding of how the progressive taxation system works (cognition) and on negative affective reactions related to taxes (emotion). This research represents a fundamental step in understanding the psychological underpinnings that hinder support for concrete wealth redistribution strategies, such as progressive taxation. The limitations of the study will be discussed and future lines of research will be proposed.

17:15-17:45

Unequal action: Explaining collective action responses to inequality

Finn Lannon[1], Jenny Roth[1], Eric Igou[1], & Roland Deutsch[2]
[1]*University of Limerick,* [2]*University of Wurzburg*

Economic inequality is an important issue in every country in the world. The gaps between the top 5% of earners and the remaining 95% continue to grow (OECD, 2020). Many specialists in the area note

the negative impact COVID-19, as well as political instability across the globe, has had on economic inequality. Economic inequality is an under-acknowledged source of social issues such as poor intergroup relations (Wilkinson & Pickett, 2017). The proposed research aims to fill a gap in literature by investigating how economic inequality can translate into intergroup relations, specifically through collective action intentions to improve group status or to reduce inequality (joining a protest, signing a petition etc.). Previous theorizing in line with the social identity approach proposes that higher economic inequality makes wealth a more fitting criteria to navigate the social world and makes "us" versus "them" binaries more salient (e.g. Jetten et al., 2017). In this regard, economic inequality can reinforce defining oneself as a member of a social group and promotes social identification processes. These processes are recognised antecedents of collective action intentions (Tajfel & Turner, 1986; Van Zomeren, 2012). In two studies, I investigate these processes by 1) testing whether the extent of economic inequality (high vs low) affects the strength of social identity as well as collective action intentions of middle status groups 2) investigating the direction of comparison between groups and perceptions of fairness or legitimacy on social identity and collective action intentions of middle status groups. I build upon research that has suggested a causal relationship between economic inequality and collective action intentions (e.g. Caricati, 2018). Initial findings reveal significant relationship between economic inequality (high vs low) as well as between direction of comparison (upwards vs downwards) on collective action intentions. Legitimacy appraisals and ingroup identification are explored as mediators/moderators of these relationships. This project will contribute to an emerging field of psychological research on the consequences of economic inequality on societies. It will also inform economic and social policy in dealing with a contemporary social issue of what drives people to act on behalf of their group when faced with inequality.

17:45-18:15

The effect of economic inequality on the content of gender stereotypes

Eva Moreno-Bella[1], Guillermo B. Willis[2], Angélica Quiroga-Garza[3], & Miguel Moya[2]
[1]*University of Córdoba,* [2]*University of Granada,* [3]*University of Monterrey*

Economic inequality is one of the main issues that current societies are facing. Importantly, economic inequality influences how people perceive individuals and groups. For example, people ascribe more agentic than communal traits to individuals who live in contexts with high economic inequality (Moreno-Bella et al., 2019). Concerning social groups stereotypes, academics have mainly focused on social class stereotypes. A high level of economic inequality leads to a greater ambivalence in the content of stereotypes (Durante et al., 2013), and this is especially true in the case of social class stereotypes (Durante et al., 2017). Likewise, high economic inequality amplifies the competence (vs. warmth) content of the high social class group's stereotypes (Connor et al., 2021; Moreno-Bella et al., 2019). More recently, studies have found that people characterized both high and low social class groups as low in communion (i.e., low in morality and sociability; Tanjitpiyanond et al., 2022). Nonetheless, gender stereotypes have received little attention despite the intersectionality between economic and gender inequality (Gonzales et al., 2015). In more economically unequal societies, women earn less money, are less socially and economically independent, and fewer women attain a high educational level (Wilkinson & Pickett, 2009). On the other hand, gender inequality reinforces and maintains economic inequality because gender wage gaps directly contribute to the aggregated level of income inequality (Gonzales et al., 2015). Hence, in this research, we aimed to examine the effect of economic inequality on the agentic and communal content of gender stereotypes.
We carried out four preregistered experiments (Ntotal = 957) to examine the effect of economic inequality on the agentic and communal content of the social perception of men and women. Across

four studies we manipulated economic inequality using different paradigms. In Experiments 1 and 2 (Spanish and Mexican samples, respectively) we manipulated the level of economic inequality (high vs. low) with the Bimboola's paradigm that consists of a fictitious society in which participants had to imagine they started to live. Then, we asked participants to describe how they perceive the typical man and woman of that society in terms of agency and communion (Diekman & Eagly, 2000). In Experiments 3 and 4 (Spanish samples) we manipulated the level of economic inequality (high vs. low) in Spain with a digital version of a newspaper and evaluated participants' perception of the typical man and woman of Spain, and –as a novelty– participants also indicated to what extent they consider positive or negative to possess those the agentic and communal traits in that society.
The results suggest that high economic inequality leads to an increase in the difference between agentic and communal content in men's stereotypes, that is, men were perceived as even more agentic than communal when economic inequality was high. By contrast, the difference between agentic and communal content of the women stereotype decreased when economic inequality was high. In other words, women were perceived as more communal than agentic in both experimental conditions, but the difference between the two dimensions of content was smaller when economic inequality was high. Moreover, we also observed initial evidence that a high (vs. low) level of economic inequality leads to perceiving that possessing communal traits.

18:15-18:45

Group Attitudes in Members of Disadvantaged Groups
Joelle-Cathrin Flöther & Juliane Degner
Universität Hamburg

Stereotypes are understood as the ascription of various characteristics to social groups or members of groups based on their group membership. The expression of stereotypes is closely linked to intergroup attitudes, specifically group preferences. Our research aims to investigate these phenomena in disadvantaged groups and has its starting point in System Justification Theory (SJT; Jost & Banaji, 1994). SJT proposes that stereotypes and related group preferences are a consequence of status differences between groups in inequal societies but also a factor that stabilizes these systems. Specifically, members of advantaged as well as disadvantaged groups are presumed to internalize and express shared stereotypes, thus legitimating and stabilizing societal system. In our view, however, SJT's theoretical conceptualization of "internalization" is highly disputable and the empirical evidence is mixed with regard to several of SJT's postulates.
We present data of several lines of research investigating assumptions regarding the role of stereotyping and group preferences in the perception and explanation of social structures in members of disadvantaged groups. We have run multiple studies (total N >1400) with members of various groups stigmatized based on their sexual orientation, ethnic identity, weight status, or age, thus expanding individual-level analyses by an additional layer of group-level analyses. We combined direct and indirect measures assessing social identification, status perceptions, group preferences, and stereotype expressions. Additionally, we investigated levels of experienced discrimination and stigma consciousness and their relations to perceived status differences.
Results of this research question several assumptions of SJT regarding the role of group preferences, stereotypes and attributions of status differences in the perception and explanation of social structures. We will discuss avenues for future improvement of theorizing on the formation and development of group stereotypes and attitudes in members of disadvantaged groups.

Room 6: Stereotypes and prejudice
Chair: Alexandra Lux

9:00-9:30

Homophobic epithets induce reduced feelings of social exclusion and hostility in gay men when label users are ingroup rather than outgroup members

Patrice Rusconi[1], Fabio Fasoli[2], Mauro Bianchi[3], & Andrea Carnaghi[3]
[1]*University of Messina,* [2]*University of Surrey,* [3]*University of Trieste*

Derogatory labels have negative consequences on gay men targets. Research has focused on the consequences of the use of such labels in terms of perceived power of the target. However, no study has addressed the issue of target's feelings of exclusion and hostility toward the label user. The literature has also focused on the target's reactions in terms of (dis)empowerment when the user is either an outgroup member (a heterosexual man) or when a gay man self-referentially uses a label (self-labelling), thus challenging its stigmatizing connation through reclaiming. Research has not yet systematically addressed the intragroup use of derogatory labels (when a gay man labels another gay man). The present study aimed to fill these gaps. We investigated the consequences of being the target of derogatory labels in terms of feelings of social exclusion and aggressive behavioral intentions when the user is either an ingroup member (another gay man) or an outgroup member (a heterosexual man). We tested the hypothesis that gay men targets would experience reduced feelings of social exclusion and diminished aggressive behavioral intentions when the label user is another gay man rather than a heterosexual man. The final analyzed sample included 137 gay men who were English native speakers (Mage = 33.23, SDage = 11.19). They were randomly assigned to one of two experimental conditions: Ingroup labeling (N = 61) or outgroup labeling (N = 76). The study was conducted online on Prolific. Participants were asked to think about all the negative labels used against gay men and list them. In the ingroup labeling condition, they were then asked to recall and describe an episode in which a gay man used one of those labels against them. In the outgroup labeling condition, participants were asked to recall and describe an episode in which the label user was a heterosexual man. In both conditions, if participants did not experience any episode, they were required to imagine and describe it. Participants were then administered a series of measures to assess: State levels of satisfaction of four fundamental human needs (belonging, control, self-esteem, and meaningful existence), perceived exclusion and feeling ignored, social pain, intention to aggress against the label user and his group, and perceived closeness to gay men and to heterosexual men (Inclusion of Other in the Self, IOS). Finally, participants were asked demographic questions and a question on outness. The descriptions of the recalled episodes were analyzed by two blind judges who rated them along the dimensions of positive valence, negative valence, category user, intention to offend, intention to joke. The results showed that only when the recalled episodes were real (rather than imagined), the consequences of labeling were significantly less negative in the ingroup than in the outgroup condition (with the exception of the need for control and the IOS). Similarly, participants reported greater intentions to aggress against the outgroup compared to the ingroup label user and his group, but only when the episodes were real and not only imagined. These results contribute to the literature by showing that derogatory language can trigger social exclusion, more so if the speaker is an outgroup member. They also complement the

literature on forecasting by highlighting the risks of underestimating the negative consequences of derogatory labels used by outgroup members when situations are only imagined.

9:30-10:00

A Product of their Time? Perpetrator Age Effects on Racism Judgements

Manuel Becker & Karl Christoph Klauer
Albert-Ludwigs-Universität Freiburg

Which behaviors are typically labeled racist and which behaviors are not has changed in Western countries over the last decades. Historically, debates on racism have focused on the prevention of very harmful intergroup behaviors. Contemporarily, this focus has been complemented by a perspective that centers on more subtle behaviors which are argued to lead to comparable harm in the aggregate (e.g., Wong et al., 2014). The spread and intensity of this norm shift may not only differ between racial groups (e.g., Sommers & Norton, 2006), but between different age groups as well, as older people have been socialized with different conceptions about intergroup relationships than younger people. If one assumes that racism judgements are essentially moral intergroup judgements (an assumption for which we will present arguments and data), it is plausible to hypothesize that participants take age into account when trying to figure out whether a behavior should be seen as racist, such that participants are more cautious to evaluate intergroup behavior as racist when the behavior is shown by an older person. Similarly, participants should be more cautious in evaluations of behaviors shown decades ago.

The materials to test this hypothesis were developed in three studies: In Pilot Study 1, N=47 participants generated examples of racist behavior, and in Pilot Study 2, N=76 participants indicated how racist they found a diverse selection of these prototypical intergroup behaviors. For the main study, only behaviors that were not rated near either endpoint of the scale were included, so that behaviors were not so polarized as to erase any possible effects of age or time period on racism judgements. In a third Pilot Study, N=11 participants rated a large number of portrait photos to enable a selection of younger (~25 years of age), middle-aged (~40) and older (~60) White women who were recorded decades ago (~1980s) or more recently (~2010s). In the main study, N=141 participants were consecutively presented with one of the portrait photos coupled with one of the intergroup behaviors. They were instructed that the women portrayed on the photos had shown these intergroup behaviors in the year that these photos had been recorded, and asked for racism judgements. Contrary to our hypotheses, behaviors shown by older people were reliably evaluated as more racist, compared to similar behaviors shown by younger people. The time period in which these photos were taken had no discernible effect on racism judgements. If the more lenient judgements for younger people hold, future studies could pursue the hypotheses that these judgements are caused by either ingroup effects or expectancy effects. Before doing so, we are conducting a follow-up replication study in which participants are in addition randomly asked, in each trial, to recall the displayed intergroup behavior, the approximate age of the portrayed person, or the time period in which the photo was taken, to ensure that participants focus on these dimensions. We will also present the results from an ongoing third main study in which participants are presented with many behaviors unrelated to racism, some of which have undergone a similar norm-shift as intergroup behaviors. This study could show whether more lenient judgements for younger people generalize to moral evaluations unrelated to race, and whether or not participants generally take norm shifts into account when making moral judgements.

10:00-10:30

Positivity norms cause ascribed communication goals to appear more or less desirable depending on the explicitness and feature valence of group comparisons

Alexandra Lux[1], Susanne Bruckmüller[2], & Vera Hoorens[1]
[1]*University of Leuven,* [2]*Friedrich-Alexander-Universität Erlangen-Nürnberg*

To describe a difference between two social groups, people may explicitly compare the groups (e.g., "Men are taller than women") or merely ascribe a feature to one of the groups (e.g., "Men are tall"), leaving the comparison implicit. We examined if comparative format (explicit vs. implicit) and feature valence (positive vs. negative) influenced the desirability of the communication goals ascribed to a claimant. In an online experiment (N = 338), participants read 40 ostensible Twitter claims that expressed stereotypical or counter-stereotypical differences between gender and age groups. For each claim, participants were presented with 12 possible communication goals (e.g., to transfer knowledge, to provoke people, or to come across as politically correct) and asked to indicate whether they believed the claimant had pursued these goals.
When claims referred to positive features (e.g., being brave), participants ascribed more desirable communication goals to claimants of implicit (vs. explicit) differences. When claims referred to negative features (e.g., being jealous), however, participants ascribed more desirable communication goals to claimants of explicit (vs. implicit) differences.
We assume that this pattern occurred because participants were influenced by a communication-specific positivity norm, namely the norm not to speak negatively of others (Bergsieker et al., 2012; Kervyn et al., 2012). In line with this, participants ascribed less desirable communication goals to claimants of explicit claims about positive features (e.g. "Men are braver than women") because – contrary to implicit claims about positive features – these suggest a negative view of the referent group (here: women) and thus violate the positivity norm. Then again, participants ascribed more desirable communication goals to claimants of explicit claims about negative features (e.g., "Women are more jealous than men") because these – contrary to implicit claims about negative features – at least say something positive about the referent group (here: men) and are, therefore, more positive overall. This pattern is also consistent with our previous finding that people perceive implicit positive (versus explicit positive) differences to be more true and socially acceptable. Moreover, it illustrates that the norm not to speak negatively of others influences not only people's verbal communication about others but also social judgments of communicators.
These findings imply that the chosen comparative format (implicit vs. explicit) can impact the image of a communicator. If communicators intend to compare social groups and wish to be perceived as benevolent, it is wise to make group comparisons explicit when features are negative, but to keep comparisons implicit when features are positive.

Room 7: Language and cognition

Chair: Magdalena Formanowicz

9:00-9:30

Foreign language effect in verbal probability phrases - English/Polish investigation

Wojciech Milczarski, Anna Borkowska, & Michał Białek
University of Wrocław

Let us say a scientist claims that a new experimental treatment is likely to cure cancer, but there is a slight chance that some serious side effects will occur. Would you take part in the trials? Recent findings in cognitive science suggest that the answer to this question might depend on the language you use. You probably have not thought about it much, but people use probability expressions both in everyday speech and in formal contexts, including scientific, economic, and political environments. Recently, international communication regarding, e.g., risk assessment, which widely employs such expressions, has been extremely relevant, especially in the light of events such as the COVID-19 pandemic and the Russo-Ukrainian conflict. We often employ verbal probability expressions instead of numerical data, which further motivates research on their numerical interpretations.

Individuals appear to be internally consistent when they provide numerical rankings of probability expressions [1], and those perceptions are stable over time [2]. For example, an event that is probable to happen is estimated to be 67% likely to happen [3]. This way of expressing probabilities signifies some issues; for example, there is some overlap in the judgments of some phrases, e.g., probable and likely, which seem to be synonymous [4]. Additionally, some researchers have found differences in the perception of probability expressions in English and the perception of their translations to other languages, including Dutch [3], French [5], German [6], and Chinese [7]. These differences arise because the meaning of the original expressions "gets lost in translation" [3].

Here, it is important to point out the potential existence of the Foreign Language Effect (FLe), which would predict that judgements and decisions made by an individual in a foreign language should differ from those made in their native language. This effect affects lawyers, judges, doctors, nurses, accountants, and generally people in power. The exact manner in which FLe influences decisions is unclear; while some authors claim it helps make less biased, "better" judgements [8], others show it distorts the decision-making process [9]. We hypothesize that language differences mediate the perception of probability expressions and, as such, affect the risk-taking propensity; either by increasing the willingness to take the risk or by reflecting a subjective understanding of probability expressions.

In our study, we focused on the perceptions of probability phrases provided by 296 speakers of Polish. We asked the individuals to assess a set of 30 English phrases adapted from [3] and their Polish translations. Three independent translators provided us with the experimental materials to ensure their correctness. The participants expressed the meaning of the expressions in percentages by moving a slider below each phrase. We designed the experiment in such a way that would prevent bias. The subjects could not see the exact percentage they chose, and the slider did not snap to grid lines. Each individual provided their perceptions for all of the probability expressions in both languages. Half of them saw the phrases first in Polish and then in English, while the other half saw them first in English, then in Polish. Additionally, we asked all of the subjects to reply to a couple of personality questions, solve the Berlin Numeracy Test [10], and fill in the metrics. That allowed us to consider any factors that could influence the responses.

The scope of probabilities covered by the foreign expressions was narrower than that covered by their Polish equivalents. Such results suggest that for the subjects, probability phrases in their native language had the power to express a wider range of probabilities than the ones presented in English. This means that people are better suited to mentally represent probabilities in their native language rather than in a foreign language.

Given those results, we decided to embed a similar task in a real-life context. We designed a follow-up experiment with a lottery task. We chose several of the probability expressions for which the differences in scores varied the most between languages. Then, we designed a task in which the participants have to choose between, e.g., "receiving a given amount of money" and "probably receiving a higher amount of money." This allows us to contrast two ways using a foreign language might affect a risky choice; for example, in Polish, the expression very likely was estimated as 87%,

whereas in English, the same expression was estimated as 82%. Prior research predicts that decisions in L2 are less risk-averse than in L1. However, the numerical estimates provided by participants would suggest less risk-taking in case of this probability expression. That experiment is still in progress, and we hope to present the results during the conference.

9:30-10:00

Intuitive judgments of semantic coherence depend on contrast effects

Robert Balas[1], Joanna Sweklej[2], Ewelina Kowalewska[3], Anna Redel[2], Anna Mazurowska[2], & Dawid Żuk[2]
[1]*Polish Academy of Sciences,* [2]*SWPS University,* [3]*Centrum Medyczne Kształcenia Podyplomowego,*

The research on RAT items (three words with a common associate) has shown that participants accurately detect semantic coherence of words triads even without knowing their common associates (i.e. solutions). We used the Dyads-of-Triads task in which participants are presented with a pair of word triads (one semantically coherent and the other consisting of random words) and asked to select a coherent RAT item. Previous studies demonstrated that such intuitive judgments of coherence are modulated by the affective valence of solution words such as the accuracy of intuitive detection is enhanced by positive affect induced by positively valenced solutions even if those are not explicitly retrieved from memory. The current study (N = 152) shows that the accuracy of intuitive coherence judgments of RAT items strongly depends on the composition of seemingly random words sets presented in the Dyads-of-Triads task so that affective coherence between RAT and random triads enhances intuitive judgment.

10:00-10:30

Retelling uncertainty: Numerical formats improve serial reproduction of probability compared to verbal formats

Karolin Salmen[1], Mandeep K. Dhami[2], & Klaus Fiedler[1]
[1]*University of Heidelberg,* [2]*Middlesex University*

Probability estimates are often used to express uncertainty. Estimates may be communicated using a verbal format (e.g., “likely”), a precise or imprecise numeric format (e.g., 15% or 10%-20% chance) or a hybrid of the two formats. Moreover, rather than receiving uncertainty messages directly (e.g., from a report), people may receive them indirectly from ‘retellings’ (e.g., in meetings, media coverage). We investigated how the choice of format influences how probability estimates may change when they are passed on between people to establish the most effective format to accurately communicate uncertainty.
Methods – We employed the serial reproduction paradigm (Bartlett, 1932). The experiment used 4 x 6 x 2 mixed design with four generations of participants (between-subjects), who each received messages in six different formats (word, numeric-range, numeric-point, and their combinations) with a high and a low starting probability value (75%, 25%). 204 English-speakers participated online. They passed on messages that contained probability estimates in different formats to the next participant. After message reception and a filler task, they prepared their message by choosing from a predefined menu. Finally, participants provided their own best probability estimates on a 0%-100% scale, plus confidence intervals. They also based a choice on these estimates, such as choosing to spend money to avoid an event.

All messages were drawn from 24 statements taken from official documents by international, EU and UK institutions within four domains (politics, environment, public health, economy). Data were analysed using linear and logistic mixed-effects models.
Results – Across generations, messages were most likely to be distorted (i.e., to diverge from the original) for formats containing words (OR = 2.36 – 2.77, p < .001). Purely numeric formats were least likely distorted (OR = 0.51 – 0.32, p <.001). Error scores (absolute deviation of best estimate from original quantities) increased over transmissions for the verbal format (b = 2.58 [0.80 – 4.35], t(1112.1) = 2.84, p <.01). They remained constant for five other formats that contained numbers (either alone or in combination with words). Inaccuracies were higher for low than for high starting probability values (b = 11.11 [7.98 – 14.25], t(2170.6) = 6.95, p <.001). Similarly, low starting values led to more pronounced increases after transmission (b = 16.25 [10.64 – 21.85], t(1330.7) = 5.68, p <.001) compared to decreases observed for high starting values (b = -4.14 [-9.75 – 1.47], t(1330.7) = -1.45, p = .15). Purely numeric formats encouraged more choices to act (OR = 1.71 – 2.00, p <.001) than formats containing words.
Conclusion – When we use numeric formats to retell uncertainty, our messages are more likely to remain unchanged: receivers are more likely to have a similar best estimate to our own even if the message has been retold several times. Our messages are also more persuasive when we use numbers (e.g., 75% chance) compared to words (e.g., likely). We can conclude that the choice of format should not be arbitrary – it has clear-cut downstream consequences for judgment and decision making. The findings improve our understanding of probability communication, and can inform organizations and practitioners who aim to communicate uncertainty accurately.

10:30-11:00

Examining linguistic devices used in persuasive appeals

Magdalena Formanowicz[1], Marta Witkowska[1], Marta Beneda[1], Jan Nikadon[1], & Caterina Suitner[2]
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We present a systematic line of research examining (1) whether people who want to encourage others to do something communicate in a specific manner, (2) whether that communication is understood by recipients according to the speaker's intention, and (3) finally, what are the linguistic devices that facilitate the emergence of the shared meaning. As the communicative goal examined in this research is to persuade others to undertake actions, our focus lies on examining whether people align language of their messages with that goal. Specifically, we turn our attention to language that is related to agency defined as goal or action orientation, because referencing agency is precisely what drives message effectiveness. Furthermore, language related to goal attainment can also require specific plan or detailed outline as to how those actions may be achieved. Therefore, on top of agency, calls for action can be more concrete than less action-oriented appeals. Altogether the main hypothesis of this work is that communicative goal aiming at persuading others to engage in action is related to the use of action-oriented and concrete language and that the use of such language drives both the authors' and readers' perception of the text and its persuasive appeal. We tested this hypothesis in three studies. In Study 1 (N = 779) and Study 2 (N = 445) we asked participants to produce a text encouraging others to do something (volunteer, vote, or act for the environment), raising awareness (Study 1), or expressing participants thoughts on these topics (Studies 1 and 2). We assessed linguistic agency and concreteness via natural language processing methods, participants also evaluated to what extent their text is agentic (practical, goal-oriented, and focused on getting things done). Texts aiming to encourage others used more language pertaining to agency and concreteness than other texts, and participants' evaluation of their texts was driven by these linguistic factors. In Study 3 (N = 339), we

used texts produced in Study 2 and asked a different set of participants to evaluate agency and persuasiveness of these texts. Readers' perceptions of texts agency and persuasiveness were again driven by linguistic agency and concreteness of the evaluated texts. Our studies indicate that formulations of persuasive appeals encouraging others to act share common linguistic strategies that are recognized by authors and readers alike, facilitating the creation of a shared meaning.

Room 8: Face perception

Chair: Simone Mattavelli

9:00-9:30

Taking political excuses at face value: The effects of politicians' appearance and trustworthiness on citizens' impressions and attributions

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When politicians' past behaviour comes under public scrutiny, citizens usually have little first-hand information on what happened, and they have to rely on what politicians say to form their impressions and make attributions. In these cases, politicians can either use excuses to shift responsibility for their shortcomings, or make concessions, taking responsibility in order to rebuild trust from there. The success of these opposite strategies depends on whether citizens are inclined to trust the politicians using them or not. Past research indicates that citizens' trust in politicians depends not only on their reputation, but also on more mundane factors, such as their physical appearance, as certain facial features influence trustworthiness impressions. In a series of studies, we considered different types of defensive political messages, and analysed whether their persuasiveness was influenced by politicians' reputation and by their physical appearance. Participants were presented with a simulated scenario in which they read allegations about a fictional politician, described as trustworthy or untrustworthy, or depicted with facial traits associated with high or low trustworthiness. Then they read the politician's defence, which was in turn manipulated in terms of responsibility taking (i.e., excuse vs. concession) and style (factual vs. counterfactual, i.e., "If…then…"). Participants' evaluation of the politician and voting intention were then measured. Results showed that political excuses, particularly those formulated in a counterfactual style, were more effective when spoken by politicians with either a positive reputation or a trustworthy appearance. Political concessions, on the other hand, were more persuasive for participants with higher political sophistication. Discussion will focus on the interplay between citizens' impression formation processes and politicians' impression management attempts.

9:30-10:00

A Generative Neural Network Approach in Evaluation of the Dominance-Trustworthiness Model of Face Impressions

Adam Sobieszek & Kamil Imbir
University of Warsaw

An important development in the study of face impressions has been the introduction of dominance and trustworthiness as the primary, least correlated, and potentially orthogonal traits judged from

faces (Oosterhof and Todorov, 2008). It hasn't been shown that this is due to the inexistence of a causal effect of perceptual dominance cues on trustworthiness impressions and vice versa. We propose a novel methodology that can answer such questions using a neural network to find and intervene on levels of perceptual traits of realistic faces. In Study 1 (N = 128) we collected judgments of artificial faces to find the perceptual features that drove trait impressions. In Study 2 (N = 395) we manipulated dominance and trustworthiness of new faces, demonstrating a new, powerful way of manipulating trait judgments of real faces. We showed that changing levels of cues of one trait, rather than selectively changing only its associated judgment, influences impressions of the other trait in a fourfold pattern that acts as if dominance and trustworthiness were independent dimensions only when decreasing the level of dominance of a face. The dominance manipulation changed dominance ratings in a linear fashion ($F(1, 223) = 170.8$, $p<.001$, $R^2 = .43$), while trustworthiness ratings tracked the trustworthiness manipulation in a quadratic relationship ($F_{quadratic}(1,222) = 61.24$, $p <.001$, $R^2= .36$). Trustworthiness affected dominance judgments linearly ($F(1, 223) = 43.1$, $p <.001$, $R^2 = .16$), while the dominance manipulation affected trustworthiness judgments in a quadratic fashion ($F_{quadratic}(1,222) = 15.10$, $p <.001$, $R^2 = .12$).
These results question the interpretation of prior studies as showing dominance and trustworthiness to be orthogonal dimensions. However, the study raised questions about the potential mediators of the effect — namely, whether the observed pattern may be driven by the effects of gender and race typicality or overlapping features associated with both judgments (e.g. smiling, which changes the face's valence). Thus, in Study 3 we tackle this question by again manipulating faces, this time while controlling features associated with gender, race and facial expression. To finally rule out the effect of overlapping features, we control dominance in the trustworthiness manipulation and of trustworthiness in the dominance manipulations. The results of the study are not yet known, but its outcome will determine what alteration to the dominance-trustworthiness model is needed in light of these findings. Concretely, whether a successful execution of the functional roles of these judgments demands each judgment to be based on cues of both traits, rather than being judged independently, or whether their dependence is driven by factors other than face morphology (e.g. gender and race typicality).

10:00-10:30

The effects of Face Mask in Automatic categorization processes

Matilde Tumino, Luigi A. Castelli, & Luciana Carraro
University of Padova

With the Covid-19 outbreak, facemasks have become part of our daily life as a crucial protection in contrasting the pandemic (Fisher et al., 2020). Several studies on surgical face mask during the pandemic have underlined that, even if mask wearers are usually more likely to be associated with the concept of illness and perceived threat, they are also considered more trustworthy and socially desirable than individuals without face masks (Olivera-La Rosa et al., 2020). However, research has widely highlighted how face masks might weaken people's ability to accurately categorize emotion expressions and might influence perceived closeness with a social actor (Groundmann et al., 2021; Tsantani et al., 2022). Furthermore, face-masks have an impact not only in emotion recognition (Pavlova et al., 2021) but also on identity recognition processes (Marini et al., 2021). In the present work, we further investigated the effects on person perception and automatic categorization processes. Indeed, little is still known about the social and behavioural consequences of mask wearing on spontaneous categorization and attitudes toward social targets who comply with face-masking policy. With this goal, we designed two studies employing the Who-Said-What Paradigm (WsW; Taylor

et al., 1978), a memory task widely used to investigate social categorization processes. Specifically, Study 1 (N=190) explored whether the organization of information in memory was also influenced by the salience of the face-mask category. Participants were asked to complete a WsW task. They were presented with a random sequence of 24 neutral sentences told by 8 white males, half wearing a face-mask and half without a face-mask. Then, participants were asked to indicate the correct identity of the speaker of each sentence. In order to investigate whether participants automatically use face-mask as a cue for categorization, within and between-category errors were calculated. Importantly, half of the participants reported their explicit attitudes toward face-masks before performing the WsW; the other half went directly through the WsW task and only afterwards they reported their attitudes toward face-mask users. Results showed that participants spontaneously encoded information in memory using face-mask as a cue to recall the correct speakers, regardless the experimental condition and thus regardless the activation of the relevance of this social norm. Indeed, within-category errors were significantly more frequent as compared to between-category errors in both conditions. Then, Study 2 (N=193) aimed at further exploring whether responses in the WsW in Study 1 could have been either simply influenced by perceptual differences between the speakers or by the normative behaviour of the speakers. In one condition, participants were presented with the same WsW as described in Study 1, whereas, in another condition, in the WsW task half of the speakers had a coloured spot on their face resembling a face-mask. Thus, in both conditions half of the speakers had a part of their face covered, but only in one condition it was covered by a meaningful social object (i.e., the face-mask). Results underlined that only participants in the face-mask condition (vs. covered faces) were more likely to make more within-category than between-category errors. Findings provide evidence in support of the hypothesis that face-masks are used as a cue in categorization processes because of their normative meaning.

10:30-11:00

On the inferences we make about faces in contexts: Face-context integration is moderated by relational encoding

Simone Mattavelli, Matteo Masi, & Marco Brambilla
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Recent work showed that the attribution of facial trustworthiness can be influenced by the surrounding context in which faces are embedded: contexts that convey threat make faces less trustworthy. In three studies (N = 352) we tested whether face–context integration is influenced by how faces and contexts are encoded relationally. We explored such a relational encoding via both direct and subtle manipulations. In Experiment 1, we used verbal instructions to manipulate the role played by facial stimuli in the surrounding context (i.e., perpetrator vs. victim). Such a manipulation significantly moderated face–context integration: When target's faces were presented as victims, then the contextual threat influenced facial trustworthiness to a lesser extent than when presented as perpetrators. In Experiment 2, we manipulated the emotional expression of faces (i.e., fearful vs. happy). Participants perceived faces in threatening contexts as less trustworthy when happy as opposed to fearful. Experiment 3 was designed to test whether the effect observed in Experiment 2 was specific for trustworthiness' attributions or, alternatively, whether it reflected an amplification effect that could generalize on alternative dispositional traits. To this aim, participants were to judge facial stimuli presented in either threatening or neutral context on trustworthiness and slyness. A significant three-way interaction proved that the role of emotion in altering face-context integration was specific for trustworthiness' attributions. Moreover, participants' tendency to judge happy faces in threatening context as less trustworthy correlated with the belief that the target face belonged to

the criminal of the context scene. Taken together, our findings suggest that face context integration is moderated by the inferences made by the perceiver about the role played the target individual in the surrounding context.

Room 9: Political psychology

Chair: Kiara Roth

9:00-9:30

What's trust got to do with it? Trusting experts vs. politicians during polarized pandemics and beyond

Gabriela Jiga-Boy[1], Jenny Cole[2], Alex Flores[3], Leaf Van Boven[3], & Dion Curry[1]
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Political polarization impeded public support for policies to reduce the spread of COVID-19, much as polarization hinders responses to other contemporary challenges such as climate change. According to the party-over-policy effect (Van Boven et al., 2018), voters are more likely to support policies put forward by ingroup (vs. outgroup) political elites. But what explains this effect? We looked at political trust as mediator of the party-over-policy effect and compared trust in political elites and non-political experts. Political trust refers to citizens' expectations of the benevolent intentions of government, and will determine their support for governmental institutions, and their willingness to follow government recommendations. For example, Israelis who trusted their government were more likely to take a COVID-19 booster vaccine than those who did not trust the government (Hauser Tov, 2021). Participants read a policy proposal regarding food safety (Exp.1, N = 997, UK) or COVID-19 mitigation measures (Exp. 2, N = 1,802, US; and Exp. 3, N = 1,825, UK). We manipulated policy sponsorship (UK or EU experts for Exp. 1, Democrat/ Republican politicians vs. Experts for Exp. 2, Labour/Conservative politicians vs. Experts for Exp. 3) and participants' ideology or party identification (Leave vs. Remain Brexit vote, Democrat vs. Republican, Labour vs. Conservative voter, respectively). We measured trust in policy sponsorship and support for the policy. Across all three experiments, liberal and conservative respondents supported policies proposed by ingroup political elites more than the same policies from outgroup political elites. Respondents disliked, distrusted, and felt cold toward outgroup political elites, whereas they liked, trusted, and felt warm toward both ingroup political elites and nonpartisan experts. This affective polarization was correlated with policy support. Trust in one's ingroup (i.e., Democrats for a Democratic voter) and distrust in one's outgroup mediated partisan support for policies proposed by the outgroup, even when the outgroup's trustworthiness was highly rated. In Exp. 2 and 3, trust in scientific elites (experts), however, was higher that trust in ingroup and trust in outgroup political elites. This suggests that in a major global crisis, the public has not 'had enough of experts'. Exp. 4 (cross-country, N = 12,995) extended these findings to seven countries (Brazil, Israel, Italy, South Korea, Sweden, UK, US). Across countries, cues from political elites polarized public attitudes toward COVID-19 policies, but policies from bipartisan coalitions and experts were more widely supported. The present research illustrates the potentially corrosive role of partisanship and elite cues in undermining public trust, and the unifying role of nonpartisan experts, implying that policies from bipartisan coalitions and nonpartisan experts would enjoy broader public support. The United States was not exceptionally polarized; these effects emerged across nations that vary in cultures, ideologies, and political systems, suggesting that polarizing processes emerged simply from categorizing people into political ingroups and outgroups. Political elites drive polarization globally,

but nonpartisan experts can help resolve the conflicts that arise from it. I will discuss directions for future research into social cognition aspects of trust in scientific experts such as the role of emotions and social power.

9:30-10:00

A Motivated Social Cognition Approach to Conservatives' Preference for the Past

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[1]*University of Cologne,* [2]*University of Florida*

Previous research suggests that political conservatives are more convinced of political ideas (including liberal ideas) if these ideas are presented in a manner that draws a comparison with the past. For example, conservatives (compared to liberals) reject pro-environmental plans if they are presented as a move toward a greener future, but embrace these same pro-environmental plans if they are presented as a way to connect with a greener past (Baldwin & Lammers, 2016). Until now, it is unclear why conservatives are drawn toward the past. Building on a model of political conservatism as motivated social cognition (Jost et al., 2003), we hypothesize that conservatives' strong orientation toward the past arises from their epistemic and existential motives. We argue that conservatives prefer past-focused political action because they perceive that the past better fits with their epistemic and existential motives. For example, the tradition and established procedures of the past may fit with conservatives' epistemic desire for stability and structure, and the stronger social relations and inclusion of the past may fit with their existential desires. Building on this notion, four preregistered online studies (Ntotal = 2,418) test the hypothesis that conservatives' preference for past-focused political action critically depends on this fit between the past and these epistemic and existential motives. We tested this idea by measuring (i.e., in correlational designs) as well as manipulating (i.e., in experimental designs) participants' epistemic and existential associations with the past. In Study 1 (N = 590 US participants) and 2 (N = 586 US participants), we independently manipulated the temporal focus (past vs. future) and epistemic (Study 1) or existential (Study 2) associations with the past by presenting different political messages. Results showed that conservatives' preference for past-focused political action hinges on the degree to which the past is perceived to fit with epistemic and existential associations favored by conservatives. Conservatives only showed a stronger preference for the past over the future when the past fulfilled their epistemic motives (significant three-way interaction: $p = .001$) and existential motives (significant three-way interaction: $p < .001$). Building on these findings, Study 3 (N = 628 US participants) used a mediation model and tested the idea that conservatives' preference for the past is mediated by these two types of motivational associations with the past. To further isolate the effects of these associations, we also controlled for ideological associations with the past as a third mediating factor. Consistent with predictions, a multiple mediation analysis showed that all three motivational associations significantly mediate the relation between conservatism and preference for past-focused over future-focused political action. Study 4 (N = 614 UK participants) successfully replicated this model in the UK. This research provides a deeper understanding of differences between liberals' and conservatives' temporal preferences and qualifies the idea that conservatives unconditionally prefer past-focused over future-focused communication.

10:00-10:30

Three fish at one hook? – Defensive, future-oriented and conciliatory claims for historical closure do not differ in their nomological network

Fiona Kazarovytska & Roland Imhoff

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Calls by members of historical perpetrator groups to draw a line under the past have been analyzed primarily in light of defensiveness toward confronting the dark perpetrator past. However, the literature suggests that such calls for historical closure may not only reflect defensive motivated reasoning, but also the perception that the present is more important than the past, or the perception that closure is necessary to reconcile with the victim group. In 10 studies (eight of them pre-registered) in four different contexts (Germany, Italy, Australia, the U.S., total N = 3889) we aimed at understanding whether these are indeed three different, distinguishable types of demand for historical closure. In five studies, we examined whether these three types of historical closure differ in their nomological network. Therefore, we developed a scale that captures these three subdimensions and adapted it to the respective contexts (Nazi past in Germany, persecution of Italian Jews during World War II in Italy, Stolen Generations in Australia, crimes against Native Americans in the United States). Contrary to expectations, we did not find substantial differences between the subdimensions of historical closure: In all contexts, all three types of historical closure were negatively associated with collective guilt, reparation intentions, empathy with the victim group and subjective temporal closeness, but positively associated with prejudices against the victim group, and a more right-wing political orientation. Although we found some context-specific variation with respect to some other nomological network variables, the overall pattern of results was typical of defensive reasoning for all three subtypes of historical closure. A further experimental study in the German context, in which we confronted participants with another person's fictitious responses on one subdimension of historical closure and asked them to rate that person's responses on the other two dimensions, revealed that the different types of closure seemed to be perceived as equivalent ways of communicating the same reasoning. Thus, advocating to draw a line under the past because one does not want to be confronted with the ingroup's perpetrator past or in order to reconcile with the victims or because the present is more important than the past seems to reflect the same core concept and to be perceived as such. Finally, in Australia and the U.S., but not in Germany, all three types of historical closure were associated with actual costly behavior to avoid confrontation with the ingroup's historical perpetration. Implications for a broader understanding of historical closure are discussed.

10:30-11:00

Contextualization of Stereotype-Incongruent Behavior: Intergroup Expectations, Causal Attributions and Context Learning

Kiara Roth, Christopher Cohrs, & Sarah Teige-Mocigemba
Philipps-University Marburg

The contextualized processing of unexpected behaviors fosters the maintenance of individuals' initial expectations and stereotypes. As such, individuals often attribute expectation-incongruent behaviors to external causes, whereas they attribute expectation-congruent behaviors to stable dispositional causes (Todd et al., 2012). Moreover, individuals attend more to incongruent events and incorporate more contextual cues into mental representations of these events (Gawronski et al., 2018; Huang & Sherman, 2018). Using predictive learning and causal attribution paradigms, we investigated the contextualization of congruent versus incongruent behaviors for political stereotypes in a series of 4 studies (total N = 831). Participants learned about a member of a German student fraternity (Burschenschaft) or a member of a politically left group who behaved congruently versus incongruently to the respective group stereotype. The target person was presented together with other persons, representing the social context. Participants formed context-behavior associations and indicated to

what extent they attributed the stereotype-(in)congruent behaviors to the context person, the target's group, the target's personality, or coincidence. Results showed that participants related incongruent behaviors more strongly to contextual information than congruent behaviors. The contextualization effects depended on participants' political attitudes and participants' identification with the target's group. We discuss the influence of underlying intergroup processes and motivated information processing on the maintenance versus change of stereotypical expectations. The findings help determine possible boundary conditions for the contextualization of expectation-incongruent behavior. In a long term, this might lay the foundation for decontextualization interventions aimed at changing stereotypes.

Room 6: Evaluative conditioning
Chair: Tal Moran

11:30-12:00

Does Co-Occurrence Information Influence Evaluations Beyond Relational Meaning? An Investigation Using Self-Reported and Mouse-Tracking Measures of Attitudinal Ambivalence
Jérémy Béna, Antoine Mauclet, & Olivier Corneille
UCLouvain, Belgium

People occasionally encounter information whose structure bears divergent evaluative implications. For instance, when reading that a sunscreen protects against skin cancer, the relational meaning of the information (i.e., "protects against skin cancer") has positive evaluative implications for the sunscreen. In contrast, the co-occurrence (of "sunscreen" with "skin cancer") would imply a negative evaluation of the sunscreen. When the case, does co-occurrence information influence people's evaluations beyond the relational meaning of the information? This question has been investigated using task comparison procedures (comparing evaluative outcomes on, e.g., a direct vs. indirect evaluative task) and process dissociation procedures (estimating relational and co-occurrence parameters within a given evaluative task). To investigate this question, we propose here a new approach based on attitudinal ambivalence measures. In doing so, we overcome limitations of the two previous approaches. Specifically, in four preregistered experiments (Ntotal= 868), we tested whether ambivalence is higher when co-occurrence and relational information have divergent rather than convergent evaluative implications. In three experiments (Experiments 1 to 3), we tested this prediction in experiential procedures (participants directly experienced the pairings between neutral and valenced stimuli). We also tested this prediction in an instruction-based experiment (Experiment 4), in which participants were only informed about the pairings but did not directly experience them. In all experiments, we used self-reported and mouse-tracking measures of ambivalence. We found higher self-reported ambivalence in divergent than convergent conditions in all experiments. Overall, ambivalence estimated with mouse-tracking measures was higher in divergent than convergent conditions in the experiential experiments but not in the instruction-based one. We will discuss these findings in light of propositional single-process and dual-process models of attitude learning.

12:00-12:30

Abstraction and generalization in Evaluative Conditioning: Category abstraction increases the generalization of acquired likes and dislikes
Kathrin Reichmann, Mandy Hütter, Barbara Kaup, & Michael Ramscar
University of Tübingen

Attitudes and preferences play a central role for decision making in social contexts, for example when deciding whom to interact with in a group of novel people. In such situations, previously acquired attitudes may be generalized towards novel individuals. The present work studies the underlying mechanisms of generalization. In particular, we consider abstraction throughout learning as one possible pathway of generalizing attitudes. Acquired likes and dislikes towards abstract entities, such

as stimulus categories, rather than individual stimuli should facilitate generalization towards novel instances of the categories. To test this hypothesis, we employed evaluative conditioning (EC) as an experimental model of attitude acquisition and generalization. The conditioning procedure was modified in a way that evaluative meaning should be either acquired on the category-level or on the level of a specific stimulus (the conditioned stimulus, CS). Consequently, wider generalization towards novel category exemplars was expected in the former relative to the later condition. Four experiments manipulated the number of CSs of a specific category that were included in the learning phase in a between-participants design. Specifically, participants either saw a single CS or multiple different CSs of a category together with stimuli of positive or negative valence. Experiencing multiple different CSs per category should facilitate participants attaching evaluative meaning directly to the category-level. As predicted, our experiments demonstrated wider generalization towards novel stimuli of a category when multiple rather than a single CS per category were presented during the conditioning procedure. Moreover, recognition memory performance and evaluations of distinct CS parts confirmed the interpretation that the different learning procedures lead to evaluative representations of different levels of abstraction. We discuss practical implications for generalization phenomena such as stereotypes, and propose predictive learning as a functional mechanism underlying category abstraction in EC.

12:30-13:00

Evaluative Conditioning: Past, Present, and Future

Tal Moran[1], Yahel Nudler[2], & Yoav Bar-Anan[2]
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Evaluative Conditioning (EC) research investigates changes in the evaluation of a stimulus after co-occurrence with an affective stimulus. EC research has flourished in recent decades, with more than 400 papers explicitly stating that they were examining EC, published since 1987. In this review, we present an overview of the past, present, and future of EC research. We review the history of EC research (past) to explain the motivations behind EC research. We divide the history of EC research into three main periods: 1) early research: Staats and Staats, 2) the second generation: From Levey and Martin to Baeyens, and 3) the current days: De Houwer's influence. We review the main research questions that motivated EC research in each period. We then, summarize the current state of the art (present) concerning three key questions. 1) What are the functional characteristics of EC; i.e., how do elements in the environment influence the EC effect? We provide a guide based on evidence concerning the functional properties of EC effects to harnessing EC procedures to change evaluation. 2) How does the EC effect occur? We discuss the possible mediating cognitive processes and their automaticity. Recent reviews on the automaticity of the EC effect have concluded that there is no robust evidence for unawareness and uncontrollability of the encoding of the CS-US co-occurrence. Therefore, we center here on evidence for (un)awareness and (un)controllability at the later stages of the processes that lead to EC effects. 3) Are EC effects ubiquitous outside the lab? We discuss the evidence for the external validity of EC research. Specifically, we discuss two lines of research within the EC literature relevant to the external validity question: EC studies in the marketing domain and studies that test the EC procedure as an intervention to change existing problematic (or to promote existing desirable) evaluations and behaviors. We conclude that many important questions have not been sufficiently tested. Finally, we discuss what we think are the key open questions that should orient further research on EC (future). We propose that the most important open questions pertain to the relevance of EC to everyday life, and to the level of control that characterizes the processes that mediate the EC effect after people notice the stimulus co-occurrence.

Room 7: Norms and values
Chair: Tjits van Lent

11:30-12:00

The effects of perceived and actual value similarity of fellow citizens on wellbeing and civic participation

Sam Taylor[1], Greg Maio[1], Lukas Wolf[1], Richard Harris[2], & Paul Bain[1]
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What does it mean to share values with others? Values, or abstract ideals that people strive for (e.g., equality or power), are guiding principles in people's lives that shape their behaviour and help them to balance competing motives (e.g., our needs as individuals vs as members of larger social groups). However, there are often trade-offs between values (e.g., between wealth and protecting the environment), which is especially crucial when considering how we interact with and think about people around us. Feeling like we share values with others is an important part of feeling connected and belonging with others. Our shared values model posits that shared values, or alignment of one's values with fellow citizens, has positive effects on wellbeing via fostering feelings of connectedness, and on encouraging civic engagement (making a difference to one's community) via acceptance of shared norms. Consistent with this model, both perceived and actual value alignment predict wellbeing (Wolf et al., 2021). However, our full shared values model has not yet been tested in a large representative sample, and differences between the effects of contrasting value types have not been thoroughly investigated (for example, value similarity effects on wellbeing may be especially strong for self-enhancement values like power). Additionally, findings are not yet clear as to the effects of value similarity at different levels of geographical identity (e.g., neighbourhood vs country).
This talk will present the results from an initial, currently in progress cross-sectional study using a large representative sample (target N=1200) from across all regions of the UK. This study aims to examine the effect of perceived and actual shared values on wellbeing and civic participation. Participants are initially asked about their own values using typical measures of values (Schwartz Values Survey), before being asked to report their perceptions of which values are most important to their fellow citizens. As people belong to and identify with several geographical in-groups, participants rate the values of people in their neighbourhood (self-defined), their region (such as London or the North West) and the UK as a whole. Additionally, participants explicitly score how similar they believe their fellow citizens are (both in terms of values and overall). Then, participants report on their overall wellbeing split into several facets (e.g., life satisfaction, global affect) as well as their engagement in several community-oriented activities (e.g., voting and pro-environmental behaviour). Variables that may mediate the relationships between shared values and wellbeing are also measured (such as belongingness and shared norms).
We expect that sharing values with others will positively predict wellbeing and that this relationship will become stronger as the target group for similarity becomes more proximal (with neighbourhood as the strongest predictor). Exploratory analyses will consider whether relations between value similarity and civic participation differ between geographical levels of identity because of differences in the types of participation at different geographical levels. For example, assisting with local charities should be predicted by sharing values with ones' neighbourhood, whilst support for national climate change policies should be predicted by shared environmental values with fellow UK citizens.

12:00-12:30

Repeated Sampling of Group Members and Norm Perception

Thomas K.A. Woiczyk[1], Rahil Hosseini[2], & Gaël Le Mens[2]
[1]*University of the Balearic Islands,* [2]*University Pompeu Fabra*

People's behaviour is frequently influenced by their expectations of what others tend to do or think one should do in a similar situation – their perception of the relevant group's norms. Yet, given time and proximity constraints, people neither observe all members of a group, nor do they observe all members the same number of times; they observe some members more often than others. Given these limitations, how do people form norm perceptions based on their observations of other people's behaviour? Answering this question is important in settings where people observe a minority of group members more frequently than the majority and the minority's behaviour systematically differs from that of the majority.

An implicit assumption in prior research is that norm perceptions are influenced by central tendency constructs at the member level such as the behaviour the average member or the majority of group members engage in. Alternatively, it could be that norm perceptions are driven by central tendency constructs at the observation level such as the average behaviour or the behaviour that was observed most often. Unfortunately, prior research considered settings in which group members were not only observed equal number of times, but also only once or twice – thus creating settings in which central tendency constructs at the different levels have the same implications. This is of special concern given that research on impression formation has found that people form evaluations of categories (such as social groups) using central tendency constructs at the observation level. More specifically, people´s evaluations of a given category are better explained by the average experience with said category than by their evaluation of the average category member. Following this notion, we propose that norm perceptions are similarly formed at the observation level and not at the level of group members.

In 3 online experiments, we found strong evidence consistent with this prediction. In Study 1 (N=200), participants observed the times at which members of a team would arrive to work. The stimuli were designed such that the central tendency constructs at the observation level (e.g., the average arrival time) and the central tendency constructs at the member level (e.g., the average across team members' average arrival times) differed. The average arrival time more strongly influenced both behavioural implications and normative expectations. In Study 2 (N=600), we replicated the previous findings in the presence of a comprehensive memory aid, thus excluding a memory-based explanation based on imperfect recall. In Study 3 (N=790), participants played the dictator in a consequential dictator game after observing a set of dictator decisions by participants from a previous experimental session. The average observed behaviour was not only a better predictor of empirical and normative expectations about other participants than the member average, but it also had a stronger influence on the participants' own behaviour. These results extend prior research on impression formation to expectation formation – people appear to form expectations about group norms relying mainly on central tendency constructs at the observation level.

These results have important implications not only for our understanding of norm perception, but also for policy makers attempting to affect people's perception or behaviour.

12:30-13:00

The Action-Valence Asymmetry in Learning Influences Subjective Values of Ingroup and Outgroup Members

Tjits van Lent[1], Gijs Bijlstra[1], Erik Bijleveld[1], Rob Holland[1], & Harm Veling[1 2]
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People make many social decisions. For example, deciding for whom to vote, whom to hire or whom to interact with. According to the value-based choice model, these decisions are driven by the subjective value people assign to the different choice alternatives (in this case different persons). This project examines how the subjective value of specific individuals can be modified through instrumental learning, and whether this modification is different for ingroup versus outgroup members. Specifically, recent work has uncovered an action-valence asymmetry in learning, which means that people find it easier to learn to perform actions towards stimuli to obtain rewards than to avoid punishments whereas they learn inactions towards stimuli better to avoid punishments than to obtain rewards. In a series of 4 well-powered preregistered experiments (N=240), we tap into several questions: How do (in)action and valence (reward vs. punishment) combinations affect learning towards ingroup and outgroup members? Does this learning process affect subjective value of the ingroup and outgroup members? To address these questions, we employed the reinforcement learning go/no-go task. In this probabilistic learning task, participants are instructed to figure out whether to perform or withhold a response towards 4 different stimuli to obtain the highest probability of getting a reward or avoiding a punishment. In Experiment 1, we conducted a conceptual replication of previous work showing the basic action-valence asymmetry using fractals as stimuli. Participants learned more quickly to perform actions to obtain a reward than to avoid a punishment. Conversely, they learned more quickly to withhold a response to avoid a punishment than to obtain a reward. In Experiments 2 and 3, we replicate these findings with social stimuli, using Dutch (Experiment 2) and Moroccan (Experiment 3) faces. Furthermore, we demonstrate that the action-valence learning influences subsequent subjective values of the faces as measured with value-based decision tasks and explicit ratings. Faces that were matched on value at the start of the reinforcement go/no-go task differed strongly in subjective value after the task. People preferred faces that were coupled with actions to obtain rewards, followed by faces that were coupled with inactions to obtain rewards, followed by faces that were coupled with actions to avoid punishments. Faces coupled with inaction to avoid punishment were preferred the least. These effects were found consistently for both ingroup and outgroup faces (i.e., Dutch and Moroccan faces). In Experiment 4, we replicate the findings of Experiments 2-3, using both Dutch and Moroccan faces in a within-subjects design. Taken together, we conclude that a) the action-valence asymmetry in learning can be observed for social stimuli and b) we found a robust and reliable way to make faces that a priori have the same subjective value differ strongly in subjective value by means of instrumental learning.

Room 8: Theoretical advancements

Chair: David F. Urschler

11:30-12:00

Intuitive and deliberate mind-body dualism: Considerations on lay beliefs about the nature of psychological phenomena

Francisco Cruz & André Mata
University of Lisbon

Previous research found that individuals hold a set of naïve theories for multiple domains of knowledge, such as biology or physics. We expand on the notion of lay theories, exploring whether people have intuitions about the nature of psychological phenomena – namely, whether they associate psychological phenomena with material (e.g., brain) or immaterial (e.g., mind, spirit, or soul) parts of people. We find that dualist beliefs about psychological phenomena are associated with the first-person subjective experience contingent to the phenomena, such that phenomena high in this experiential component are believed to be more strongly associated with immaterial parts of people. Dualist beliefs about psychological phenomena, however, can emerge at two distinct levels. People are intuitive dualists, in the sense that people hold intuitions pertaining to which psychological phenomena are associated with a(n) (i)material basis; people can, nonetheless, adjust these automatic beliefs when resources are available, and these deliberate dualist beliefs are less extreme than those which emerge at the intuitive level, especially for high first-person subjective experience phenomena. Moreover, people experience conflict when providing explicit judgments on the basis for psychological phenomena, especially for high first-person subjective experience phenomena. Additionally, we show that these beliefs have implications: the more a psychological phenomenon is associated with immaterial parts of people, the less people believe that science can explain it.

12:00-12:30

Theoretical constraints render research findings predictable and replicable

Klaus Fiedler
Heidelberg University

After a decade of ongoing debate about the so-called replication crisis, we have acquired considerable negative evidence on what findings apparently cannot be replicated, but there is a conspicuous paucity of positive evidence about what makes research robust and replicable. Taking an optimistic perspective, the answer proposed in the present paper is that solid and replicable findings are not only possible but that certain findings are predictably replicable on logical grounds. They are actually available and easily detectable for a long time, although for some reason they are persistently overlooked and hardly ever sought for deliberately. Apparently, the negative focus on replication failures and the neglect of the positive criterion of successful replication has prevented us from considering an obvious answer: Bayesian calculus clearly explains that to maximize the posterior odds of replicable evidence, the prior odds (i.e., the theoretical a-priori constraints) must support the likelihood ration (i.e., the diagnosticity of a good research design).
Thus, solid and replicable findings that ought to be published in the world's best journals must not be "sexy", "surprising", and "obsessively novel"; they must rather be embedded in cumulative science and derivable on logical grounds, in accordance with clear-cut causal constraints (explaining why "certain findings must be so"). To delineate this point, I present a 4 × 3 taxonomy of four levels of theoretical constraints (a-priori; psycho-physical; well-established empirical law; model-based) imposed on three criteria (research hypothesis; operational measures; domain limitations).
A taxonomy of theoretical constraints affecting different aspects of replication research (i.e., hypothesis, operationalization, and domain). Constraints on …Origin of constraints … theoretical hypothesis … operational conventions … domain limitations A-priori constraints Psychophysical constraints Well-established empirical laws Trusted model implications*
I illustrate the taxonomy with empirical examples from my own research and from the extant literature. I propose that sufficiently strong constraints of clearly theory-driven hypotheses create optimal conditions for robust and replicable research. My intention is to convince the audience that behavioral science is replete with many examples of solid and replicable findings.

12:30-13:00

Do we really know what we are talking about? The prevalence of well- and ill-defined psychological constructs in 150 meta-analytic reviews

David F. Urschler
HS-Doepfer

The importance of scientific rigor has been in the spotlight of psychological research in the past decade. For example, previous research has provided comprehensive guidelines to increase replicability, and highlighted the importance of theory for improving psychological science. However, we argue that the crucial aspect of construct clarity has not yet been sufficiently considered, because concept clarification of psychological constructs is a prerequisite for reliable and valid scientific endeavors. Our reasoning is underpinned by previous research that has revealed that several eminent psychological constructs have been ill-defined. For example, a review revealed that empathy has been defined in 43 different ways, which has had a negative impact on both research and practice. Moreover, constructs of interest have been solely defined by their operationalizations (i.e., operational definitions) that undermines conceptual clarity. Consequently, we examined the prevalence of well- and ill-defined constructs in psychological science.
Given that meta-analytic reviews on a certain topic are more likely to be cited and to influence the field than a single research paper, we sampled 150 meta-analyses from Psychological Bulletin across the period from 1990 to 2017. We focused on Psychological Bulletin because Psychological Bulletin is a renowned outlet for meta-analytic reviews across all psychological disciplines. To answer whether the construct(s) of interest were defined, and if yes, how were they defined, each meta-analytic review was coded by two independent coders. Additionally, we coded several descriptive characteristics of each meta-analytic review (e.g., number of included constructs, discipline, first- and last-authors gender, construct's valence; the full-list of coded characteristics will be available at OSF).
Our results revealed that the 150 meta-analytic reviews contained 359 constructs in total. Out of these 359 constructs, 140 (39%) constructs were defined. Out of the 140 defined constructs, for seven a conceptual definition, for 50 a homeostatic property cluster definition (a construct is defined by a cluster of features that regularly but not exceptionlessly co-occur), and for 83 an operational definition was provided. The main findings are, that the majority of constructs in meta-analytic reviews were not defined, and if they were defined, the majority of the constructs were lacking a conceptional definition. In our discussion, we argue for an increased emphasis on conceptual definitions, which, in turn, further improves scientific rigor in psychological research in the future.

Room 9: Perception

Chair: Paul-Michael Heineck

11:30-12:00

Implicit Visual Accentuation – Returning to Tajfel

Gün R. Semin
William James Center for Research

Three experiments are reported that examine how the abstract category of gender, grounded by the lightness-darkness dimension, derived from the universal sexual dimorphism of skin color, is represented and how such representations lead to visual accentuation processes, i.e. polarization of differences between male and female faces. In the first two experiments, we show that irrespective of whether grayscale male and female faces are presented sequentially or jointly, female faces are judged to be lighter than male faces when participants are asked to indicate the level of lightness of the faces. This pattern was found for most participants who explicitly stated that men and women do not differ in skin color. The third experiment was designed to examine the cognitive consequences of what people implicitly 'know' with a perceptual accentuation study. Participants were provided with male, and female faces of equal skin color. Subsequently, in a memory recall task, they were asked to select from a row of several faces varying in skin color, the original face. They chose, as predicted, lighter versions of faces for females compared to the male faces. This research reveals that the evolutionarily based sexual dimorphism in skin color implicitly grounds gender categories and shapes implicit visual accentuation processes.

12:00-12:30

Food Is All Around: Why The Unhealthy = Tasty Belief Might Be An Illusory Correlation

Sonja Kunz[1], Simona Hassova[2], Niklas Pivecka[1], & Arnd Florack[1]
[1]*University of Vienna,* [2]*University of Lausanne*

Many studies show that some consumers associate unhealthy with tasty food, resulting in more unhealthy food choices (Briers et al., 2020; Garaus & Lalicic, 2021; Raghunathan et al., 2006; Turnwald et al., 2022). So far, it has been assumed that this unhealthy = tasty belief arises from the protestant work ethic (Raghunathan et al., 2006; Weber, 1998), a general opposition between wholesome and enjoyable. In the present research, we propose a novel explanation for the unhealthy = tasty belief. We argue that consumers form beliefs about food based on information in the environment and how they process this information. When it comes to food health and taste, information is often skewed towards more tasty (De Castro et al., 2000; Wahl et al., 2017) and unhealthy food (Ravensbergen et al., 2015; UConn Rudd Center for Food Policy & Health, 2017). We argue that this skewed information can lead to illusory correlations between health and taste, contributing to food beliefs. We propose the theory of pseudocontingencies (PC; Fiedler, Freytag & Meiser 2009; Fiedler & Freytag 2004; Kutzner & Fiedler 2017) as a theoretical account for the unhealthy = tasty belief, beyond the protestant work ethic. According to the framework of pseudocontingencies, people tend to infer correlations between variables based on their overall frequencies. To do so, they simply combine what is more frequent (e.g., unhealthy food and tasty food) as well as what is rare (e.g., unhealthy food and non-tasty food). Yet, the actual correlation might be zero or even in the opposite direction. Additionally, we propose that frequencies of healthy and tasty food are also differently skewed across different contexts (i.e., eating places). For example, in a fast-food chain, unhealthy and tasty food might be frequent, whereas in a high school cafeteria, healthy and non-tasty food might be frequent. In this example, the proportion of unhealthy food perfectly correlates with the proportion of tasty food across contexts, posing an ecological correlation (Robinson, 1950). However, despite an unhealthy-tasty correlation at the ecological level, the correlation at the level of individual foods may be zero or even healthy-tasty (Haasova & Florack, 2019; Kunz et al., 2020). Therefore, transferring the correlation at the level of contexts to the level of individual meals might result in a potentially false belief that unhealthy food is tastier than healthy food. We propose that consumers perceive frequencies of healthy and tasty food to be differently skewed in differing contexts. We further argue that differently

skewed frequencies of health and taste across contexts leads to illusory correlations, contributing to food beliefs. We tested these assumptions in a pilot survey and an experimental study. In the pilot survey (N = 106), we tested whether consumers perceive healthy and tasty food to be differently frequent in different contexts. We presented participants with descriptions of four restaurant types: 1) Typical fast-food chain, 2) trendy street food joint, 3) upscale scene restaurant, 4) school or university cafeteria. For each restaurant type, we asked participants to rate on slider scales from 1-100, the healthiness and tastiness of food in this type of restaurant. We also asked participants to estimate the relative percentages of healthy vs. unhealthy and tasty vs. non-tasty foods in each restaurant on two slider scales each, which had to amount to 100%. Results showed that the health and taste ratings differed significantly between restaurants, $F(2.75, 286.38) = 105.35$, $p < .001$, $\eta p2 = .50$ as well as the estimated percentages of (un)healthy and (non-)tasty food, $F(2.54, 267.12) = 128.21$, $p < .001$, $\eta p2 = .55$. Especially the fast-food chain was perceived as less healthy, but tastier than the cafeteria, whereas the street food joint and upscale restaurant were perceived as both healthy and tasty. In the experimental study (N = 156), we tested whether skewed frequencies of healthy and tasty food across contexts lead to illusory correlations. We presented participants with health and taste ratings of food from two contexts: Cafeterias at the workplace and restaurants in the neighborhood. According to the experimental condition, there were either 1) more healthy and tasty foods in the first than the second context, 2) more unhealthy and tasty foods in the first than the second context or 3) equal numbers of (un)healthy and (non-)tasty foods in both contexts. Importantly, the actual correlation within each context was in the opposite direction than the skewed base rates would suggest. For instance, when there were more unhealthy and tasty foods in the first than in the second context, suggesting an unhealthy-tasty correlation, the actual correlation within each context was healthy-tasty (.33). After viewing the ratings, participants indicated to what extent they perceived a correlation between health and taste within each context, by estimating the frequencies of foods that were both unhealthy and tasty, unhealthy and non-tasty and so on. They also indicated their contingency belief directly, by stating whether they thought unhealthy food to be tastier than healthy food, and finally, they predicted taste ratings of new foods from both contexts from their given health rating and vice versa.

We found that the frequency distribution of health and taste across contexts affected the perceived correlation with regard to the frequency estimations, $F(2, 153) = 19.63$, $p < .001$, $\eta p2 = .20$, the contingency belief, $F(2, 153) = 18.87$, $p < .001$, $\eta p2 = .20$, as well as the health-taste correlation in the prediction task, $F(2, 153) = 31.78$, $p < .001$, $\eta p2 = .29$. Participants perceived unhealthy-tasty correlations when there was more unhealthy and tasty food in the first than the second context, although the actual correlation was healthy-tasty. Conversely, they perceived healthy-tasty correlations when there was more healthy and tasty food in the first than the second context, although the actual correlation was unhealthy-tasty.

In conclusion, we found that consumers perceive healthy and tasty foods to be differently distributed across different food contexts. Differently skewed frequencies of healthy and tasty foods across contexts can lead to illusory correlations between health and taste which might help explain food beliefs such as the unhealthy=tasty belief. We are currently preparing a follow-up study replicating the effect found in Study 1 with pictures of real food.

12:30-13:00

Beyond the incident - A paradigm for research on perception of systemic discrimination

Paul-Michael Heineck & Roland Deutsch
University of Würzburg

In the last decades, research has significantly advanced our knowledge on discrimination perception. However, most methods in this field suffer from limitations that impede the study of cognitive processes underlying discrimination perception. To facilitate research and thus knowledge on the cognitive underpinnings of discrimination perception, we developed a new laboratory paradigm: Discrimination in Sequence and Tables (DiSaT). DiSaT offers three major advantages over previous methods: 1) an easy way to continuously manipulate and quantify the actual severity of discrimination (SoD) in an experimental setting; 2) control over alternative explanations for different treatments of multiple groups beyond discrimination (e.g., performance); 3) a sequential presentation format that enables investigating sampling processes and information processing. The present talk will introduce the paradigm at greater detail and will also present empirical evidence in support of the paradigm's functionality. Four experiments (N=772) demonstrate that the DiSaT-paradigm allows for a systematic manipulation of the degree of objective discrimination that is perceivable to participants. In Experiment 1 and 2 a tabular presentation format of information on discrimination was used, while in Experiment 3 and 4 comparable information was presented in a sequential manner. To simplify participants' task in Experiment 1 and 3, a group was discriminated against if it was more often treated badly than the other one. In Experiment 2 and 4, this cue was not sufficient to form a correct judgment on the discrimination present, as groups' performance was given an explanatory role in some cases. Hence, it was additionally possible that differences and treatment were due to differences in performance, and not due to discrimination. So, it should be more difficult to process the information correctly in experiment 2 and 4. To lay a foundation for future research using the DiSaT paradigm, another aim of these studies was to investigate to which degree participants' perception of discrimination depends on the measurement used to assess it. Therefore, we compared three different measurements of discrimination perception, using the following quality criteria: a) participants' ability to differentiate between low and high SoD; b) the accuracy of participants' discrimination judgment; c) participants' individual sensitivity to differences in SoD.

All four experiments demonstrate that participants' judgments of discrimination show high accuracy and that they correlate with the SoD manipulated in the DiSaT. This was true for two of the three question formats in both, the tabular and the sequential presentation format. This suggests that participants perceive the severity of discrimination according to how the DiSaT attempts to induce it. Thus, the DiSaT-paradigm fits as an operationalization of discrimination and as a measurement of its perception under optimal conditions. Since the DiSaT (especially in the sequential format) offers important advantages to facilitate research on cognitive processes in field of discrimination perception, future research may greatly benefit from this new paradigm. Potential applications of known phenomena from previous paradigms in this field are discussed.

Room 6: Interpersonal processes
Chair: Francesco Margoni

14:30-15:00

To What Extent Can We Truly Change?
Nitai Kerem, Inbal Ravreby, & Yaara Yeshurun
Tel Aviv University

The way people perceive the world is shaped by their subjective filters (e.g., prior knowledge, attitudes and beliefs) (Hastorf & Cantril, 1954). In this study we explored whether there is something privileged in the way initial filters affect this perception. Specifically, we were interested in testing whether individuals who experienced a major shift in their religious beliefs are more similar to individuals holding views congruent with their original set of beliefs, or rather to individuals matching their current, "changed" views. To test this, 170 Israeli-Jewish participants were recruited and allocated to four groups according to their religiosity- (1) religious; (2) penitent (born and raised secular, shifted towards religious Judaism later in life); (3) ex-religious ("ExRe", born and raised religious, shifted towards secular Judaism later in life) or (4) secular. Participants underwent an online experiment presenting two tasks: "Near-Threshold Recognition", measuring recognition accuracy of photos depicting religious/secular/neutral elements presented at a near-threshold rate (50 ms), and choice RT; and a "Me/Not Me" task, measuring self-association with the presented elements conveyed by the same stimuli as in the first task (presented until choice is made), and choice RT. We hypothesized that group affinity could be predicted by RT, accuracy and affiliation choice in these tasks, and that "changed" groups (penitents and ExRes) will be classified differently depending on either explicit or implicit responses. Results suggest that whether an individual was religious or secular could be classified based on both tasks, as well as by RT in the "Me/Not Me" task alone. Moreover, the classification confusion matrix revealed that penitents performed similarly to the religious group and that ExRes were distinct and unlike any other group. These results suggest that the filter dynamics are asymmetrical in nature and that initial filters do not generally have privileged behavioural representations. Further examining to which "fixed" group individuals with "changed" filters are more similar to, could determine the extent to which people can truly change. As far as we are aware, this is the first study illuminating the intriguing construct of personal change relating to initial filters in light of altering subjectivity.

15:00-15:30

On perceiving ambivalence in others' attitudes
Ruiqing Han[1], Travis Proulx[1], Frenk van Harreveld[2], & Geoff Haddock[1]
[1]*Cardiff University,* [2]*University of Amsterdam*

Understanding how others see the world is vital in navigating everyday life. Knowing your neighbour's opinion about the current Prime Minister is likely to influence how you speak with them in a political discussion. Of course, much of the time, people's views about important issues are mixed (i.e., ambivalent). Our neighbour might strongly like some of the PM's policies while at the same time feeling

abhorrent about the PM's views on other issues. While researchers have focused on what ambivalence is, as well as the antecedents and consequences of ambivalence (for reviews see Maio et al., 2018), there is little research about if, and how well, people can detect others' ambivalence, and how ambivalent and non-ambivalent are perceived and judged.

This paper reports six experiments assessing how well people can detect others' attitude ambivalence, and how they perceive, evaluate, and expect to interact with people who are (or are not) ambivalent. Experiment 1 examined whether people can detect attitudinal ambivalence when shown what they believed to be others' attitudes toward a variety of topics. Experiment 2 used a reverse correlation paradigm to generate mental representations of ambivalent and non-ambivalent faces, which were then evaluated by another sample. Experiments 3 and 4 examined how participants expected ambivalent and the non-ambivalent targets to behave in an economic game. Experiments 5 and 6 examined whether people could link ambivalent and non-non-ambivalent faces to targets verbally depicted as ambivalent or not.

Summary of Experiments

Experiment 1 (n = 144) examined how well participants could detect ambivalence when shown fictitious targets' attitudes toward controversial and non-controversial topics. The targets' attitudes differed in ambivalence. After viewing the targets' attitudes, participants rated the likeability, warmth, and competence of each target. We found that participants could detect the targets' attitudinal ambivalence, and, building upon previous research (Pillaud et al., 2018), we found that a target who was ambivalent only towards controversial issues was rated as the most likeable, warm and competent. Experiment 2 assessed how people visualise faces of individuals whom they believe are ambivalent or not. That is, whether ambivalent and non-ambivalent people are perceived as looking similar or different, and if they do, do these differences matter? Using the reverse correlation procedure (Dotsch & Todorov, 2012), we tested whether people have different visual representations of (a) someone who is ambivalent about controversial issues only, (b) someone who is ambivalent about controversial and non-controversial issues, and (c) someone who is non-ambivalent. A sample of generators (n = 292) created their own image of one of the three targets, these individual images were then collapsed into one classification image for each target.

Next, another group of participants, unaware of how the images were generated, evaluated the images on a range of attributes. We found that the image depicting the target who was ambivalent toward controversial issues was judged as the most open-minded, trustworthy, likeable, and warm. In contrast, the image depicting the individual who was non-ambivalent was judged as the most competent, attractive, dominant, and masculine. Further, the non-ambivalent target was judged as most likely to take the lead in a group and most difficult to persuade, as well as being perceived as best suited to be a soldier, politician and business executive, and least well suited to be a social worker.

Experiments 3 and 4 considered the behavioral implications of perceiving someone as ambivalent or non-ambivalent. In Experiment 3 (n = 91), participants learned about three targets who played the dictator game more or less fairly, and indicated which classification image was most likely to be each target. In Experiment 4 (n = 223), participants learned about a target's ambivalence before indicating how they expected the target would play the dictator game. Experiment 3 showed that participants judged the least fair dictator to be the non-ambivalent image, while Experiment 4 showed that participants expected the non-ambivalent target to share less resources. These studies suggest a bidirectional link between perceived ambivalence and expected behaviour

Finally, Experiments 5 and 6 examined whether participants could link ambivalent depictions to the reverse correlation images. Participants learned about a target's subjective (Experiment 5, n = 86) or objective ambivalence (Experiment 6, n = 98) and then indicated which classification image was most likely to be the target. The results showed that people were able to link the attitude descriptions with the images.

Implications and future research

To the best of our knowledge, previous research has not directly measured people's ability to detect others' general attitudinal ambivalence. These experiments show that people can detect others' ambivalence, have different representations of ambivalent and non-ambivalent people, and that these representations have important consequences.
Across our experiments, we found that participants expected the ambivalent and non-ambivalent targets to behave differently. For example, if participants expected to work in a pair with a non-ambivalent target, they expected this target to take the lead. When expecting to play the dictator game with a non-ambivalent target, participants expected this target to share less resources relative to an ambivalent target, with the association between perceived ambivalence and expected resource sharing mediated by perceived dominance.
Finally, we found that participants expected the non-ambivalent target to be more difficult to persuade compared to the ambivalent targets. Our findings support previous work that ambivalent people are more pliable to persuasion. Future research could explore how people would seek to persuade an ambivalent or non-ambivalent target and whether they would use different strategies with people of different levels of ambivalence.
Moving forward, our experiments were conducted with participants all based in the UK. This is important as evidence suggests that people from different cultural backgrounds perceive constructs related to ambivalence differently. For example, people from eastern backgrounds tended to have more mixed evaluations on self-concepts compared to people from western backgrounds. Future research could explore whether people from different cultural backgrounds experience different levels of ambivalence and whether they visualise and perceive ambivalent others differently.

15:30-16:00

When unsure, just ignore: Investigating ostracism as a low-risk alternative to confrontation of norm-violators

Christoph Kenntemich & Selma C. Rudert
University of Koblenz and Landau

Confrontation of norm-violating persons can reduce future norm-violations, making it an effective tool to improve cohesion in social environments. But in most social environments many potential costs must be weighed against this benefit. For one, many forms of confrontation can be considered aggressive, which is not tolerated and often sanctioned in many social environments. Consequentially, reactions to norm-violations could either be (1) a cautiously modified confrontation, that is unlikely to be interpreted as aggressive, or (2) to refrain from confrontation and revert to ostracizing the norm-violator, as a more subtle and socially accepted alternative. While it is likely that (1) is the aim of many anti-aggressive norms, we hypothesize that (2) is often the more attractive alternative and thereby the more prevalent reaction. Here, we examine confrontation and ostracism simultaneously in an experimental setting, thereby providing a much-needed link between the two subfields. We assume that confrontation and ostracism are both attractive responses to norm-violating behavior and aim to investigate situational factors that shift the proportions between the two responses.
In two online experiments (N1 = 160; N2 = 275) and one laboratory experiment (N3 = 159), we manipulated the target behavior to observe whether confrontation of the target and exclusion of the target become more likely when the target behaves norm-violating (vs. norm-conforming). Participants could choose to respond to the target in either a positive or a negative way via emojis and an open comment or chose not to respond at all and thus ostracize the target.
In line with our hypotheses, participants chose to confront the target significantly more frequently when the target behaved norm-violating vs. norm-conforming. Findings on the frequency of ostracism

were mixed: While the first study provided inconclusive results, the second study showed that participants chose to ostracize the target significantly more often when the target behaved norm-violating vs. norm-conforming. An integrative data analysis of Studies 2 and 3 suggested that, contrary to hypotheses, ostracism was more likely online (vs. in the laboratory). Exploratory analyses of all studies further suggested that people especially preferred confrontation over ostracism when they wanted the target's behavior to change. Anger also predicted confrontation over ostracism, yet qualitative analyses of the written content revealed that most confrontations were tactful.
In summary, both confrontation of the target and ostracism of the target are attractive responses to norm-violating behavior when observed simultaneously. Further studies will investigate under which situational circumstances either confrontation or exclusion of the target become more or less likely. We assume that ostracism becomes more attractive in environments with greater potential costs and/or less benefits of confronting the target.

16:00-16:30

Infants Understand Bowing as a Cue for Legitimate Leadership
Francesco Margoni & Lotte Thomsen
University of Oslo

Prior research has shown that infants distinguish between fear-based social power (bullying) and respect-based social power (leadership). However, what cues do they use to represent legitimate leadership? Across eight experiments that varied the cues provided, we assessed whether infants expected agents to obey a character. In Experiment 1, we asked whether the act of bowing (which matches the respect displays found across many cultures, and the prostration cues for subordination found across species) suffices in generating the representation of legitimate leadership. We addressed this question by assessing whether Norwegian 21-mo-olds expect agents to obey a character if they have bowed for it. Infants saw three geometric agents bowing to a character. Next, the character instructed them to go to bed, and they either complied while it watched but disobeyed after it left (disobedience) or continued to comply after it left (obedience). Infants looked longer at disobedience, indicating that they expected the agents to obey. Experiment 2 replicated the finding. In Experiment 3, the same events were shown but agents no longer bowed down (they instead moved back-and-forth sideways). In Experiment 4, the character conferred a benefit to the group, giving them a ball to play. In Experiments 5 and 6, the character imposed a cost to the group, by stealing the ball (Experiment 5) or hitting them with a stick (Experiment 6). In Experiment 7, the character was now bigger in size compared to the three agents, and was shown to possess abundant resources (three balls) before handing over one ball to the group (as in Experiment 4). In Experiments 3 to 7, we found positive Bayesian evidence of the fact that infants did not generate clear expectations. Lastly, in Experiment 8, the character received a tribute (the ball) from the group, and infants expected disobedience rather than obedience (confirming prior results reported in Margoni et al., 2018). In sum, Norwegian infants do not use physical size, the ability to confer a benefit, the ability to impose a cost, or the fact that the main character is receiving a tribute from the group as cues for leadership. They instead use bowing as a cue for representing legitimate leadership. As it is unlikely that these Norwegian infants saw anyone bow in their everyday life, we argue that this understanding may be part of a fundamental, dedicated, early-emerging capacity to represent leadership built by evolution.

Room 7: Social judgment
Chair: Magali Beylat

14:30-15:00

Impact of perceived group's competence and warmth on Level-2 visual perspective taking
Antoine Vanbeneden, Karl-Andrew Woltin, & Vincent Yzerbyt
Université Catholique de Louvain

Visual perspective taking (VPT), i.e., the ability to adopt another person's viewpoint, entails two distinct processes, Level-1 (L1)-VPT and Level-2 (L2)-VPT, referring to the ability to perceive whether a target sees an object and how this target sees an object, respectively.
Whereas previous work investigated the impact of targets' social characteristics on L1-VPT, the present research is the first to do so regarding L2-VPT. Specifically, we investigate the impact of targets' membership in groups varying in perceived competence and warmth, the two fundamental dimensions of social perception (Fiske et al., 2002; Abele et al., 2021). Previous research on groups perceived to be low in both competence and warmth (LCLW) revealed that people fail to perceive members of these groups as truly social agents but dehumanize them instead (Harris & Fiske, 2009, 2011). Building on these results, we hypothesized that LCLW outgroup membership would negatively impact observers' VPT, revealing stronger egocentric interference: lower VPT efficiency (as measured by dividing response time by error rate) answering from the target's perspective when the observer and the target do not perceive a stimulus the same way. Participants in six experiments (N=442) engaged in a L2-VPT task. They were instructed to answer as quickly as possible whether a cued number matched a number present on a scene from either their own or the avatar's perspective. Avatars belonged to a low competence low warmth group (LCLW; e.g., the homeless) or a high competence low warmth group (HCLW; e.g., bankers) in Experiments 1-5, thus contrasting LCLW targets with other targets high on only one of the two dimensions. In Experiment 6 avatars belonged to a LCLW group or a high competence high warmth group (HCHW; e.g., female students), thus contrasting LCLW targets with targets high in competence and warmth to maximize social distance between groups. Relying on a variety of designs, Experiments 1-4 sought to investigate the impact of LCLW targets on L2-VPT. Given the inconclusive results regarding the presence or absence of altercentric interference (i.e., lower VPT efficiency answering from one's own perspective when oneself and a target do not perceive a stimulus the same way) in the original paradigm (Surtees et al., 2012), we also sought to replicate previous findings using the original paradigm in Experiment 1. In Experiments 5 and 6, we replaced the neutral avatar drawings used in the first four experiments with pictures of prototypical targets to increase ecological validity. Across all experiments, we consistently found support for the presence of both egocentric and altercentric interference, but this was not moderated by differences in groups' competence and warmth. These findings suggest that social characteristics such as membership in dehumanized outgroups do not influence L2-VPT. Such findings support recent viewpoints on VPT, such as the submentalizing account arguing that VPT is merely the unintentional processing of attentional cues, or Westra's (2016) suggestion that L2-VPT might only require a recall from previous knowledge and not an active adoption of targets' perspective.

15:00-15:30

From Social Value Orientation to Conditional Cooperation and Back: Comparing Social Preference Models from Social Psychology and Behavioral Economics

Dorothee Mischkowski[1] & Léon Bartosch[2]
[1]*Max Planck Institute for Research on Collective Goods,* [2]*University of Cologne*

Several models of social preferences have been developed at the intersection of social psychology and behavioral economics, but a conceptual as well as empirical comparison is hereto missing. The goal of our studies is to investigate the relation of two of the most prominent social preferences models in social psychology and behavioral economics: Social value orientation (SVO), assessed as a series of dictator games (Murphy et al., 2011), and conditional cooperation in strategic interactions, measured by means of the strategy method (Fischbacher et al., 2001). Furthermore, we aim to locate conditional cooperation within basic personality traits from the HEXACO personality model, particularly expecting a relation with reactive pro-sociality (i.e., Agreeableness) as compared to active pro-sociality (i.e., Honesty-Humility).
In two preregistered, incentivized online studies (N total = 521), we show that the conceptual overlap of both social preference models is also reflected empirically: In line with our expectations, conditional cooperation increased with SVO. However, conditional cooperation was neither related to Agreeableness nor to Honesty-Humility. While we find that prosocials coincide with conditional cooperators, even most individualists who maximize their own outcome in dictator games turn to conditionally cooperative behavior in strategic interactions. This underlines the importance of shaping situations as reciprocal acts to elicit cooperative behavior also from originally self-interested individuals. Ultimately, the classification of free-riding in the strategy method assesses individualism more conservatively than SVO by additionally requiring low reciprocity. We suggest to particularly consider these conceptual differences when deciding among different social preference models and their corresponding operationalization.

15:30-16:00

Social Environment and Information Structure Effects

Marco Biella
Heidelberg University

The social ecosystem shapes information flows among social agents determining which agent has access to which information. The ecology of such an ecosystem has more far-reaching consequences than we thought, as social agents adapt to and leverage the information ecology.
Here, we aim at unveiling the dynamics that the information ecology and agents' adaptations jointly pose on social perception. One simulation and two experimental studies will demonstrate how the information ecology is leveraged by social agents based on their hedonic or epistemic goals, and how social perception consequences unfold.
Under the epistemic goal, participants are presented with a sampling task involving two social perception targets, namely a pair of students. Their goal is to explore the social environment, a students' cohort, and find out cooperative students to be recruited for a group project. They can decide to interact with these targets one at a time, receiving information in terms of the target's social behavior (cooperating in a trustworthy manner or behaving selfishly refusing to cooperate). Differently from typical sampling and canonical impression formation tasks, the information ecology is manipulated by introducing a mutual social connection between the participant and one of the two

targets. Such connection is asymmetrically feeding information to the participants, making one of the two targets incidental (information is provided regardless of the sampling decision) and the other one selective (can only be sampled directly). In an alternative condition, a second mutual connection providing information regarding both targets is added. Such a condition doesn't affect the information asymmetry but makes the asymmetrical ecology less evident. In the first experimental condition, the information asymmetry is leveraged by participants which oversample the selective target. This behavior is highly rational as it fits the epistemic goal and triggers sampling decision effects leading to a mild preference for the selective target. In the second alternative condition, the non-evident ecology is not leveraged in terms of sampling and the asymmetrical information injection by the mutual connection reduces small sample bias for the incidental target, which is preferred in this condition. Under the hedonic goal, participants are exposed to the same task, but they start with a neutral grade which is updated after each interaction (positive/negative interactions increase/decrease the grade). Here, participants exhibited greater early truncation and weaker leveraging of the first asymmetrical ecology, both behaviors were expected according to rational analysis. Moreover, they showed an increased preference for the incidental option in the second alternative condition. This finding provides an information ecology-based explanation for homophily, the preferential social bonding with friends-of-friends, a well-known social phenomenon.
Our results are in line with existing literature on social perception, bounded rationality, experience (hedonic) sampling, and sampling theories in evaluative conditioning. Additionally, our results advance our understanding of social exploration dynamics and ecology effects that shape the information on which social perception is based.

16:00-16:30

Whom to seek orientation from in the work context? The role of regulatory mode and social orientation motives

Magali Beylat[1], Karl-Andrew Woltin[1], & Kai Sassenberg[2 3]
[1]*Université Catholique de Louvain,* [2]*Leibniz-Institut für Wissensmedien,* [3]*University of Tübingen*

Leaders are often presented as the main targets followers seek orientation from. However, depending on their characteristics and motives, followers might also prefer to seek orientation from their peers. Regarding characteristics, we considered followers' regulatory mode (RM), that is their assessment mode (a concern for critical analysis and comparison) and their locomotion mode (a concern for movement from state to state and maintaining action flow). Regarding social orientation motives, we considered followers' self-evaluation, self-improvement, self-enhancement, and emulation motives. We investigated how they jointly influence who followers prefer to seek orientation from. More specifically, assessment is associated with a need to do things right, which suggests that different targets will be considered depending on the current social orientation motive. In the professional context, both leaders and peers are likely to provide relevant information on doing things well: leaders set performance expectations and peers can serve as reference points. Therefore, when seeking to self-evaluate, self-improve or emulate, followers' assessment mode should predict preferences to seek orientation from both their leader and peers, as they might both provide insights on how to do things right. However, assessment mode should predict followers' preferences to seek orientation from their peers rather than their leader when they seek to self-enhance, as followers are more likely to stand in a better or equal place to their peer than to their leader. In contrast, locomotion is associated with a need to just do it and move ahead, and therefore with preferences for social interactions that could serve their action flow. Therefore, followers' locomotion mode should predict preferences to seek orientation from their leader rather than their peer, independently of the motives considered here, as

leaders are more likely to provide information on what to do next and in order to move on. We tested these hypotheses in three preregistered studies, measuring participants' RM and manipulating the social orientation motives within-subjects. Participants indicated whether they would rather seek orientation from their leader or a peer (Study 1, N = 280; Study 2, N = 280), or from their leader, a peer or nobody (Study 3, N = 272). Supporting our predictions, assessment mode and social orientation motives interacted, such that assessment positively predicted preferences to seek orientation from peers rather than leaders for self-enhancement motive, whilst not predicting leader or peer preferences for the other motives. In addition, and also in line with predictions, locomotion positively predicted preferences to seek orientation from a leader rather than a peer – independently of the social orientation motives. Implications for how different targets are relevant in motivating followers at work are discussed.

Room 8: Intergroup processes

Chair: Maximilian Primbs

14:30-15:00

Shifting selves – investigating the malleability of mixed racial-ethnic identity

Anna Huang & Juliane Degner
Universität Hamburg

Individuals with mixed racial-ethnic family backgrounds belong to multiple groups within one social domain and have an extended range of options for their racial-ethnic identity. They are assumed to be in the rather unique positition of having access to at least two different racial-ethnic categories, which may allow, at least some of them, to flexibly switch between their social identities. Our research aims at understanding how individual and contextual or situational variables influence Mixed individuals' chronic and automatic activation of their different racial-ethnic identities. We will report results of our first study, in which we examined the role of self-reported perceptions of racial-ethnic prototypicality and discrimination for Mixed individuals' explicitly stated identification with both of their parents' racial-ethnic identities as well as their mixed identity. Starting from here, our further research focuses on the flexible and malleable nature of mixed racial-ethnic identity and its implicit components. Since this project is still at an early stage, this abstract refers to the planned methods, analyses, and expected results of research conducted in early summer this year. We plan to investigate, which context characteristics and individual experiences make racial-ethnic identity and its associated antecedents, like racial-ethnic prototypicality and discrimination particularly relevant. In a first step, we examine how the situational salience of either one of the racial-ethnic categories influences Mixed individuals' racial-ethnic identity activation and shapes their group evaluations. We hypothesize that Mixed individuals who identify with both of their parents' racial-ethnic categories will show indications of active identity shift in response to the primed identity. Therefore, our next study will include indirect as well as direct measures, thus focusing both on aspects of automatic activation as well as deliberate expression of social identities. In an experimental setting, we present participants with a stimulus or task increasing the salience of one of their parents' racial-ethnic identities, followed by an indirect measure of identification. Participants will repeat this procedure, but this time being primed with the other parent's racial-ethnic identity. We expect to find an effect of the salient racial-ethnic identity moderated by the self-perceived prototypicality. For individuals who perceive themselves as less prototypical for the salient racial-ethnic identity, we assume to observe a contrast effect. That is,

presenting them with a prime for a group they do not perceive themselves to be similar to, should decrease impressions that they belong to this group and instead increase identification with the racial-ethnic identity, which was not primed. High levels of self-perceived prototypicality, on the other hand, may elicit assimilation effects, which manifest as higher levels of identification with and positive evaluation of the primed group. We plan to include a control sample consisting of subjects with monoracial heritage, for whom we would expect no effect for priming different racial-ethnic categories. This procedure allows us to take a look at the isolated effect of social identity on intergroup evaluations and brings us one step closer to understanding the cognitive processes underlying the (malleability of) mixed racial-ethnic identity.

15:00-15:30

Beyond a mere black sheep? The black sheep effect as a function of degrading the outgroup

Zahra Khosrowtaj[1], Vincent Yzerbyt[2], Philipp Süssenbach[3], & Sarah Teige-Mocigemba[1]
[1]*University of Marburg,* [2]*University Catholic de Louvain,* [3]*Fachhochschule des Mittelstands*

The former German federal minister of the interior once declared migration as the "mother of all problems". Migration politics are hotly disputed debates in Western countries, particularly during the last years peaking with the refugee crisis in 2015. Terroristic or sexual acts in different European cities sparked debates about the integration of migrants and asylum seekers from predominantly Muslim countries. On the one hand, media analyses demonstrate that harm-doers' religion or cultural background are often connected with the deviant acts in the media. On the other hand, people punish deviant ingroup members more thereby exhibiting the black sheep effect (BSE). Across five experiments, we investigated a) whether ingroup (German) harm-doers are punished more harshly compared to an outgroup (Afghan) counterpart – thereby demonstrating BSE – using between- (Exp. 1-3) and within-subjects designs (Exp. 4-5), b) the effect of descriptions about the harm-doer on his evaluation using the stereotype content model (Exp. 1-2), c) responsibility attributions on cultural level (Exp. 2-5) and d) the effect of two experimental manipulations (Exp. 3 & 5) on the BSE and outgroup derogation. In all experiments, participants worked through either one (or two, Exp. 4-5) fictitious articles depicting a rape. In Experiment 1 (N = 383), we used a 2 (perpetrator: ingroup vs. outgroup) × 3 (description: positive vs. negative vs. no description) between-subjects factorial design. We observed a BSE as well as milder judgements of the perpetrator described as warm and competent (vs. cold and incompetent). In Experiment 2 (N = 1048) we additionally assessed the responsibility attributed to the culture of the perpetrator. Results replicated the BSE as well as the exoneration of the positively described perpetrator. Interestingly, we observed harsher responsibility ratings toward the outgroup's culture. In Experiments 3-5 (pre-registered), we tested a possible extension of the BSE: While one deviant ingroup member is blamed more harshly, the outgroup's culture as a whole is degraded. In Experiment 3 (N = 437), we used a 2 (couple: ingroup vs. outgroup couple) × 2 (priming: outgroup saliency vs. control) between-factorial design, for testing the hypothesis that thinking about the outgroup before rating an in- vs. outgroup harm-doer within an intraethnical context will elicit harsher BSE. Contrary to our expectations, we observed an ingroup bias moderated by negative attitudes against Muslims and Islam but again replicated the harsher blaming of the outgroup culture. In addition, particularly participants with negative attitudes towards the outgroup were more likely to harshly judge the outgroup's culture. In Experiment 4 (N = 288) we tested our proposed extension as part of a within-subjects design and used a 2 (perpetrator: ingroup vs. outgroup, within-factor) × 2 (order: ingroup- vs. outgroup first, between-factor) factorial design. As expected, we observed the BSE on the level of the individual perpetrator as well as outgroup derogation on a cultural level. In Experiment 5 (N = 703) we used a 2 (perpetrator: ingroup vs. outgroup, within-subjects) × 2 (order:

ingroup first vs. outgroup first, between-subjects) × 2 (ingroup entitativity: high vs. low, between-subjects) factorial design. First, we aimed at replicating the BSE and outgroup derogation simultaneously; second, we aimed at experimentally testing whether the co-occurrence of the BSE and outgroup derogation is increased when ingroup entitativity is perceived as high (vs. low). We replicated the BSE on the target level and outgroup derogation on the cultural level. Order of presentation affected the ratings in Experiments 4-5: The interaction between perpetrator × order indicated a BSE when the outgroup was presented first. This is in line with our rationale, as thinking of the outgroup before rating a deviant ingroup member will elicit harsher BSE as a distancing strategy from the previous typical outgroup perpetrator. Furthermore, a comparative context might play a crucial role: participants starting with the ingroup newsflash were in an intragroup comparison while starting with the outgroup newsflash implies an intergroup comparison. Previous research suggests that as a consequence of intergroup comparisons, groups are perceived as equally homogenous and the outgroup homogeneity effect disappears. When the outgroup was presented first, an intergroup comparison was more likely, thus leading to higher perceptions of the ingroup as homogeneous (vs. ingroup as heterogenous), which, in turn, might have increased the BSE to distance oneself from the deviant ingroup exemplar. Regarding the manipulation of entitativity, no moderating effect on BSE was observed.
Regarding societal conflicts and with an eye to the rhetoric's used by some politicians , it is of practical relevance to investigate the factors that may impact the perception and evaluation of outgroup deviants and their culture. As deviance by outgroup members might be used to denigrate the cultural background of the perpetrators, it is important to better understand seemingly more benevolent reactions toward outgroup relative to ingroup deviants. Although the BSE on a single target level stands in contrast to prevalent negative attitudes and hostility towards Muslims, our work illustrated several relevant insights. First, participants tend to punish a deviant ingroup member more harshly compared to a deviant outgroup member. Second, we observed an uncomforting effect of status as competent and warm perpetrators were excused more strongly for the same highly deviant act. Third, we observed and replicated the denigration of the whole outgroup's culture while observing a harsher judgment of the deviant ingroup member . Being more lenient toward one outgroup target and being more punitive toward one ingroup target might go hand in hand with the derogation of the whole outgroup. The present work not only contributes to the existing literature on subtyping, ingroup favouritism, and outgroup derogation but also suggests a possible extension of the BSE beyond the mere motivation of protecting solely the ingroup`s image.

15:30-16:00

Formation of Intergroup Bias in Attitudes, Memory, and Communication

Johanna Woitzel & Hans Alves
Ruhr-University Bochum

People hold more negative attitudes and stereotypes toward outgroups and minority groups than ingroups and majority groups (e.g., Hewstone et al., 2002; Katz & Braly, 1932; Thalhammer et al., 2001). Social psychology often explains these intergroup biases as the result of people's self-serving motives (e.g., Abrams & Hogg, 1988; Brewer, 2003; Tajfel & Turner, 1979). An alternative explanation independent from assumptions of hostile motivations is an interaction of basic cognitive principles and asymmetries in the information ecology (Alves et al., 2018). Novel and unfamiliar groups are primarily evaluated based on distinct attributes that differentiate them from familiar ones (e.g., Fiske, 1980; Houston et al., 1989; Houston & Sherman, 1995; Sherman et al., 2009). In the information ecology, these distinct attributes are usually negative (e.g., Unkelbach et al., 2019). Thus, novel and unfamiliar

groups like outgroups and minority groups suffer an evaluative disadvantage. Previous research demonstrated this for preference of one group over another (Alves et al., 2018). In four pre-registered experiments, we tested whether the differentiation principle transfers from preference choice to impressions of likeability, memory of attributes, and descriptions of groups. To this end, we used an attribute-learning paradigm in which participants serially encountered three fictive groups and their members. Three members of each group displayed a positive and three members displayed a negative attribute. We manipulated whether positive attributes were shared by all groups and negative attributes were distinct (negative-distinct ecology) or vice versa (positive-distinct ecology). In Experiment 1 (N = 612), we measured likeability of each group as well as participants' memory of the frequency of positive and negative attributes for each group. In the negative-distinct ecology, we found lower likeability of novel (i.e., later-encountered) than familiar (i.e., earlier-encountered) groups. As to valence memory, we found that participants in the negative-distinct ecology recalled a higher relative frequency of negative attributes for novel than for familiar groups. Both likeability and memory patterns reversed in the positive-distinct ecology. In Experiment 2 (N = 303), we measured likeability of each group as well as participants' memory of each groups' attributes. The likeability patterns replicated those from Experiment 1. As to attribute memory, we found that participants in the negative-distinct ecology recalled more negative attributes for novel than for familiar groups. Again, this pattern reversed in the positive-distinct ecology. In Experiment 3 (N = 500), we asked participants to describe each group with one attribute. In the negative-distinct ecology, we found that novel groups were more likely to be described with negative attributes than familiar groups, which again reversed in the positive-distinct ecology. Experiment 4 (N = 506) replicated this effect even if perfect memory of all attributes of a group was ensured. The present work thereby identifies differentiation as a general principle of attitude formation that can result in negatively biased impressions of, memory for, and descriptions of novel and unfamiliar groups. Some of the disadvantages that outgroups and minorities often face may therefore not only result from peoples' self-serving motives but also from the "innocent" cognitive principle of differentiation.

16:00-16:30

The effects of #BLM on racial bias in the United States

Maximilian Primbs, Rob Holland, Ruddy Faure, Tessa Lansu, & Gijs Bijlstra
Radboud University

Recent theoretical advances in implicit bias research have redefined implicit bias as a feature of a situation as opposed to the feature of an individual (Bias of Crowds Model; Payne et al., 2017). Research supporting this perspective has shown that implicit bias in particular geographical locations is associated with a wide-range of prejudice relevant outcomes, such as police violence (Hehman et al., 2018), health disparities (Leitner et al., 2016), and social mobility (Vuletich & Payne, 2019). Implicit bias is thus associated with local differences in the social and cultural environment.
As such, major changes in the social and cultural environment, for example the election of a president or large societal movements, should theoretically lead to change in (implicit) racial bias for the people residing in this changing environment (e.g., Sawyer & Gampa, 2018). Yet, existing research provides mixed results. For example, the election of Donald Trump but not the election of Barack Obama led to changes in American`s prejudice (Ruisch & Ferguson, 2022; Schmidt & Axt, 2016). As such, the present research aims to provide novel evidence for this central prediction of the Bias of Crowd Model. In the past few years, several large-scale societal movements, most importantly #metoo and Black Lives Matters (#BLM), set out with the explicit goal to facilitate societal change. From a Bias of Crowds

perspective, these large-scale societal movements should have changed the social and cultural environment and thus should have led to changes in racial bias.
Thus, the present research evaluated the effects of the large-scale 2020 #BLM movement on racial bias in the United States. We argue that this movement acted as natural intervention that signalled changes in social norms surrounding the acceptability of racism. In turn, it has been suggested that these changes in social norms then facilitate the need for people to conform and hence lead to a change in racial bias (Ofosu et al., 2019). Therefore, we expected that a) #BLM leads to a faster decrease of racial bias over time and b) that this is caused by a change in social norms. We assessed racial bias using feeling thermometers and implicit bias scores from the 2020 Project Implicit Race data (Xu et al., 2014). We measured local social norms by using the social norm questions in the Project Implicit database, the number of searches for #BLM by state from Google trends, and the number of #BLM protests by state from the ACLED protest database (Kishi et al., 2021). Taken together, the present research aims to provide novel evidence for central predictions of the Bias of Crowds model (Payne et al., 2017) and test social norms as potential mechanism underlying large-scale changes in racial bias. Preliminary results indicate that the 2020 #BLM protests led to a sharp decrease in racial bias in the United States and also changed the trajectory of the decrease of racial bias over time. Currently, we are conducting further analysis and we will discuss final results and theoretical implications.

Room 9: Science perception & Conspiracy beliefs

Chair: Marius Frenken

14:30-15:00

Rejection of scientific innovations and pseudoscience beliefs in the Netherlands – an examination of ideological and knowledge predictors

Bojana Većkalov & Bastiaan T. Rutjens
University of Amsterdam

Science rejection concerning specific science domains is heterogeneous – its levels and predictors vary across domains. Most previous social-psychological research has focused on ideological and knowledge predictors of science rejection in the domains of climate change, vaccination, genetically modified foods, and evolution. Comparably less is known about the role of these antecedents in other domains of scientific innovation and pseudoscientific beliefs. To address this gap, this work focused on investigating the ideological and knowledge predictors of rejection in the domains of artificial intelligence (AI), nanotechnology and genetic editing in humans (GE) (Studies 1 and 2), as well as pseudoscience acceptance (Study 2) in two Dutch samples. In Study 1 (N=342), we found that stronger spiritual beliefs predict rejection in all three investigated domains. In addition, unlike for nanotechnology and AI, the rejection of GE in humans was predicted by religiosity. These effects seemed to be (partly) attributable to lower faith in science among religious and spiritual individuals. We found no evidence for the contribution of conservative political ideology to science rejection. In Study 2 (N=251), to get a more comprehensive understanding of the rejection of scientific innovations in the Netherlands, we expanded the scope of potential predictors to include conspiracy beliefs, science knowledge and aversion to tampering with nature. In addition, we examined the importance of predictors implicated in a different manifestation of science rejection – acceptance of pseudoscientific beliefs and practices. Results for religion and spirituality were fully in line with results from Study 1 – spirituality predicted rejection in all three domains, whilst religiosity was implicated in

GE rejection only. Again, these effects were (partly) explained by faith in science. In contrast to Study 1, political orientation was a consistent additional predictor of rejection across domains. Contrary to research on science rejection in other science domains (e.g., climate change, vaccination, genetically modified foods), conspiracy beliefs were not predictive of rejection of scientific innovations. Science knowledge was a marginal negative predictor of GE rejection only. In addition, aversion to tampering with nature was a consistent positive predictor across domains. Finally, pseudoscience acceptance was most consistently predicted by spirituality, conservative ideology, science knowledge and aversion to tampering with nature. Together, these results point to the crucial role of spirituality in various manifestations of science rejection, providing support for recent observations of its importance for science attitudes. In addition, aversion to tampering with natural processes emerged as an important antecedent of science rejection in Study 2, reflecting potential universal worries people have about scientific innovations. Furthermore, this work reiterates the heterogeneity of science rejection when it comes to the importance of other ideological (conservative ideology, religiosity, conspiracy beliefs) and knowledge predictors.

15:00-15:30

Are all scientists "scientists"? Social evaluations of scientific occupations and their impact on perceived prototypicality

Vukašin Gligorić, Bastiaan Rutjens, & Gerben Van Kleef
University of Amsterdam

Science and scientists are among the key drivers of societal changes. While research has demonstrated that, in the public view, science is heterogeneous, work on perceptions of scientists usually considers "scientists" as members of a homogeneous group. In the present research, we went beyond the general term and investigated differences in social evaluations of different types of scientists, and how these contribute to perceptions of prototypicality. The aim of Study 1 (N = 300, UK sample) was to obtain a list of scientific occupations to be rated. We asked participants to list all scientific occupations that come to their mind in five minutes. After cleaning the list (e.g., correcting spelling mistakes, removing non-scientific occupations), we ended up with 34 scientific occupations, to which we added two general terms ("scientist" and "researcher"). The most frequently mentioned occupations were chemist, biologist, and physicist. In Study 2 (N = 411, US sample), we asked participants to rate occupations from Study 1 on social dimensions based on two social evaluation models Behavior Regulation Model (BRM) and the ABC model of stereotypes and on prototypicality, i.e. how good example of a scientist is a member of a given occupation. Since the ABC model had low reliabilities, we only focused on the BRM dimensions. We found that all scientific occupations were seen as highly competent, relatively moral, and moderately sociable. We also found that individuals perceive differences in levels of social dimensions, which can be captured in clusters of scientific occupations. These clusters include occupations based on (1) physics and mathematics, (2) biology and medicine, (3) data sciences, (4) ecological/green sciences, and (5) earth and social sciences. The sixth cluster emerges from the earth and social sciences, being seen as less competent than other occupations from the cluster. Perceived prototypicality was based on competence ratings, meaning that, in the public's view, to be a scientist means to be competent (intelligent, smart). Studies 3 and 4 served as replications with the US sample. Study 3 (N = 303) returned an almost identical list as Study 1, having 35 occupations, of which 33 were the same as in the UK. The most frequently mentioned occupations were the same as in Study 1 (chemist, biologist, and physicist). In Study 4 (N = 427), we used social dimensions based on BRM and Dual Perspective Model (DPM). As in Study 2, participants rated scientific occupations on social dimensions and prototypicality. Findings based on both BRM and DPM

converged, replicating Study 2: similar five clusters were corroborated. Perceived prototypicality was again based only on perceptions of competence. Overall, we demonstrate that focusing only on "scientists" leads to overgeneralization, whereas the term, for the general public, mostly implies chemists, biologists, and physicists. On the other hand, distinguishing between different types of scientists provides a much-needed nuanced picture of social evaluations of scientists across occupations.

15:30-16:00

Cognitive processes behind the conspiracy mindset

Marius Frenken & Roland Imhoff
Johannes Gutenberg-University Mainz

Conspiracy theories attracted a great deal of attention during the pandemic. Previous research indicated that the endorsement of different conspiracy theories is interrelated and uniform, speaking for a general conspiracy mindset. But which processes reflect the mindset on a cognitive level? In a series of four studies (N = 1083), we explored the cognitive architecture of the conspiracy mindset in experimental settings using drift diffusion models. The diffusion model allowed us to dissect three possible mechanisms that could be associated with differences in the conspiracy mindset: different a-priori base rate assumptions, different information processing, and different levels of information reduction. Specifically, we tested the association of conspiracy mentality with the tendency to suspect secret plots behind events and the insinuation of hostile intentions behind occurrences, across mundane as well as high-impact societal events. Participants were tasked to intuitively judge short sentences on the respective binary response options. Results yielded associations between conspiracy mentality and raw behavioral measures in all domains. Furthermore, drift diffusion modeling suggests that especially initial base rate assumptions are important for the early cognitive processes of the conspiracy mindset. We discuss that people with a pronounced conspiracy mentality tend to have a domain-general tendency to see more secrecy and negative intent in events. The interpretations of the modeling parameters point to the relevance of response biases rather than biased information accumulation or information reduction.

THURSDAY, September 1 – 9:00-11:00

POSTCONFERENCE SYMPOSIUM
Aula Tesi – Department of Psychology - building U6 - III floor

Social cognition and personality: On the relation between personality and evaluative conditioning

Chairs:
Jan De Houwer (Ghent University)
Marco Perugini (University of Milan-Bicocca)
Florin Alin Sava (West University of Timisoara)

There have been relatively few interactions between the research fields of Social Cognition and Personality. The interactions have been even more sporadic if one considers research on the relation between, on the one hand, personality traits and, on the other hand, evaluative and social learning. Still, there is much that the two fields of research can learn from each other. This symposium, inspired by the EU project "LEARNVUL" of which the three organizers are partners, will include contributions at the intersection between the two fields, showcasing research on how personality moderates evaluative conditioning, halo effects, and other feature transformation effects. Considering insights about basic processes and individual differences relevant to these processes is bound to shed new light on both personality and social cognition. The symposium starts with a conceptual talk by De Houwer who explores different ways in which conditioning research and personality can interact, with a focus on the relation between Neuroticism and conditioning. As such, it sets the stage for three empirical papers. First, Casini presents evidence showing that anxious and vulnerable people (i.e., facets of neuroticism) show stronger evaluative conditioning (EC) effects. Second, Bunghez presents evidence showing that in contexts with ambivalent stimuli, neurotic people transfer more negative than positive valence to the conditioned stimuli. Finally, Huzoaica shows that Neuroticism facilitates valence-congruent inferences (i.e., halo effects) for the conditioned stimuli. The four presentations illustrate the broader point that there is still considerable merit in relating personality and evaluative conditioning research.

Presentation 1

Title: A roadmap for future interactions between research on personality and learning
Presenting author: Jan De Houwer

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Despite close interactions between learning and personality research in the mid-20th century, there has been little interaction between these fields of research in recent years. Still, there is much that the two research fields can learn from each other. Personality could moderate (a) learning effects (e.g., stronger fear conditioning in highly neurotic individuals), (b) effects of other moderators (e.g., a bigger impact of US intensity on fear conditioning in highly neurotic individuals), (c) mental processes that mediate learning (e.g., more stimulus attributions in highly neurotic individuals). The impact of personality could itself depend on situational factors (e.g., how ambiguous a situation is). These individual differences in learning also inform us about personality. Personality dimensions could not only be characterized in terms of learning processes (e.g., reinforcement sensitivity) but also assessed using learning paradigms (e.g., reinforcement). We discuss how such interactions between learning and personality research could be facilitated.

Presentation 2

Title: New insights on the moderating role of Neuroticism on Evaluative Conditioning: The role of stimulus evaluation and intolerance of uncertainty
Presenting author: Erica Casini

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Evaluative Conditioning (EC) is a change in evaluative responding to a neutral stimulus due to its pairing with a valenced stimulus (US). In this contribution, we focus on how this EC effect can be moderated by Neuroticism, a trait characterized by a high focus on valence. In the first study, participants **(**298 Ss) completed an EC procedure and a comprehensive battery for assessing Neuroticism. Multilevel analyses indicated a stronger EC effect for people high in anxiety and vulnerability, two Neuroticism facets. A multilevel moderated mediation model suggested that this effect can be explained by a tendency of anxious people to evaluate stimuli as more valenced than they normatively are. A second study is underway investigating whether the amplifying effect of anxiety on EC can be explained by intolerance of uncertainty. The two studies will shed light on the relationship between Neuroticism and EC.

Presentation 3

Title: Does the relation between Neuroticism on Evaluative Conditioning depend on ambivalence?
Presenting author: Cătălina Bunghez

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Recent research examined whether Neuroticism moderates evaluative conditioning (EC), that is, the way in which valence is transferred from a positive or a negative stimulus (unconditioned stimulus; US) to a neutral one (conditioned stimulus; CS). Contrary to the classical perspective on Neuroticism, people scoring high on Neuroticism not only transferred more negative valence to CSs, but also evaluated the CSs paired with positive USs as significantly more positively. To shed light on these previous findings, the present research introduced ambivalent USs (i.e., a positive picture and a negative picture merged into one image; Experiment 1, N=556) and ambivalent contingencies (i.e., CSs paired in 50% of exposures with positive USs and 50% of exposures with negative USs; Experiment 2, N=306). Our findings converge with the traditional perspective on Neuroticism, revealing a negativity bias in evaluating new stimuli.

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