## Overview

### Wednesday July 10

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td>Registration</td>
<td>08:00—18:00</td>
<td>Main hall</td>
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<tr>
<td>Pre-conferences</td>
<td>09:00—17:30</td>
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<tr>
<td>Welcome reception</td>
<td>17:30—20:00</td>
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<tr>
<td>Early Career drinks</td>
<td>20:00—22:00</td>
<td>CREA café</td>
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### Thursday July 11

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<th>Event</th>
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<tr>
<td>Registration</td>
<td>08:00—18:00</td>
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<tr>
<td>Coffee &amp; Tea</td>
<td>08:00—08:45</td>
<td>Main hall</td>
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<tr>
<td>Invited symposium</td>
<td>08:45—09:45</td>
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<tr>
<td>Parallel sessions</td>
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<tr>
<td>Coffee &amp; Tea</td>
<td>11:00—11:30</td>
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<tr>
<td>Keynote: Carien van Reekum</td>
<td>11:30—12:30</td>
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<tr>
<td>Lunch &amp; Posters</td>
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<td>Parallel sessions</td>
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<tr>
<td>Coffee &amp; Tea</td>
<td>15:30—16:00</td>
<td>Main hall</td>
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<tr>
<td>Parallel sessions</td>
<td>16:00—17:30</td>
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<tr>
<td>Canal boat ride</td>
<td>17:30—19:30</td>
<td>Meet in Main hall</td>
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<tr>
<td>Conference dinner</td>
<td>19:30—</td>
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### Friday July 12

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<td>Registration</td>
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<td>Coffee &amp; Tea</td>
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<td>Parallel sessions</td>
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<td>Flash talks</td>
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<tr>
<td>Coffee &amp; Tea</td>
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<tr>
<td>Keynote: Andrea Scarantino</td>
<td>12:00—13:00</td>
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<td>Lunch &amp; Posters</td>
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<td>Parallel sessions</td>
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<tr>
<td>Coffee &amp; Tea</td>
<td>16:00—16:30</td>
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<td>Parallel sessions</td>
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<tr>
<td>Drinks</td>
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<td>Amsterdam Museum</td>
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### Saturday July 13

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<tr>
<td>Coffee &amp; Tea</td>
<td>08:00—09:00</td>
<td>Main hall</td>
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<tr>
<td>ISRE business meeting</td>
<td>09:00—10:00</td>
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<tr>
<td>Parallel sessions</td>
<td>10:00—11:30</td>
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<tr>
<td>Coffee, Tea &amp; Pastries</td>
<td>11:30—12:00</td>
<td>Main hall</td>
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<tr>
<td>Keynote: Dacher Keltner</td>
<td>12:00—13:00</td>
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<tr>
<td>Award ceremonies and closing</td>
<td>13:00—13:30</td>
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<tr>
<td>Packed Lunch</td>
<td>13:30—</td>
<td>Main hall</td>
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Sessions

Thursday July 11

Invited symposium 08:45—09:45

Parallel sessions 10:00—11:00

Individual talks: Specific emotions A0.01

A Contextual Goal-Based Theory of Envy and its Outcomes
Yochi Cohen-Charash, Manny F. Gonzalez, Elliott C. Larson,
Soohyun (Ashley) Lee & Paige Alenick

Being Moved by Extremist Propaganda
Helen Landmann, Lena Frischlich & Anette Rohmann

Bored to the Bone: A Meta-Analysis of Individual Differences Associated with Boredom
Manuel Gonzalez

Individual talks: Gender, social class and emotions A1.02

Dirty workers emotional work: A pilot study about Swedish funeral directors
Anneli Öljarstrand

Negative Emotion and Perceptions of Social Class
R. Thora Bjornsdottir & Nicholas O. Rule

Sex Differences in Emotional Concordance
Julina A. Rattel, Frank H. Wilhelm, Michael Liedlgruber & Iris B. Mauss

Individual talks: Emotion and development A1.03

Preschoolers’ communication about discrete emotions
Jennifer Knothe & Eric Walle

Infant appreciation of emotion when attributing preferences from non-random sampling events
Lukas Lopez & Eric Walle

Individual talks: Emotion perception A2.07

Seeing mental and emotional abilities in human faces and anthropomorphic objects
Eva G. Krumhuber, Xijing Wang & Richard Shaw

Accuracy of automatic emotion recognition from voice
Damien Dupré & Gary McKeown
Individual talks: Deep emotions

What can emotion research learn from the study of dream emotions: a methodological perspective
Pillerin Sikka

A novel affective approach to reduce the dehumanization bias
Tiarah Engels, Disa Sauter, Bertjan Doosje & David Amodio

Meet the editors

Meet the editors

Keynote: Carien van Reekum

11:30—12:30

Lunch & Posters

12:30—14:00

1 Pride, Perceived Discrimination, Depression, and Ethnic Identity Among Afro-Latinx Adults
Tiffany L. Huseman, Faith Logan, Shawn M. Garis, Andrew Guzman & Diana P.F. Montague

2 Development of emotion regulation: Cross-generational patterns of emotion socialisation and emotion regulation
Amanda DiVita, Diana Montague & Jennifer Fermaintt

3 Parental emotion-related discourse patterns and child behavior problems in early childhood: A person-centered approach
Erika Hernandez, Cynthia L. Smith, Kimberly L. Day, Amy Neal & Julie C. Dunsmore

4 Emotion socialization among Chilean Mapuche and non-Mapuche parents and educators: The value of respect
Enrique Riquelme, Dejah Oertwig & Amy Halberstadt

5 Parents' socialization of ego-focused and other-focused emotions and children's social competence in Chinese families
Danhua Zhu, Zhuo Rachel Han & Julie C. Dunsmore

6 Young Children's Self-Regulation and Emotion Knowledge: Evidence from the Adaptive Test of Emotion Knowledge
Katharina Voltmer & Maria von Salisch

7 Examining Departures from Consensus among Gendered Affective Meanings in the US, Egypt and Morocco
Kelsey Mattingly

8 The Ceiling Effect of the Empowerment Experience
Andreas Schneider
9 Comparing Methods and Affective Predictions from Affect Control Theory and the Stereotype Content Model
Trenton Mize

10 "Nothing to worry about": Emotion Work, Contraceptive Responsibility, and Pregnancy Prevention among University Students
Abigail Nawrocki, Christie Sennott & Laurie James-Hawkins

11 A conjoint model of the relationships between the cognitive and the subjective components of emotions
Florian Loeser, Pascal Pizelle & Anna Tcherkassof

12 Executive function as a prediction of academic performance
Tatiana Pryakhina

13 Social networks, stress and communication in older adults
Jasmine Rollings, Jerome Micheletta, Darren van Laar & Bridget Waller

14 Cross-Cultural Studies on Personal Experience of Sadness
Itziar Fernández, Pilar Carrera, Amparo Caballero & Dolores Muñoz

15 Women are always warm? The role of restrictive emotion in gender role conflict
Laura Villanueva-Moya & Francisca Expósito Jiménez

16 The relationship between emotion and religion: A review of quantitative and experimental studies
Adriano da silva Costa & Wellington Zangari

17 Social-Emotional Expertise: Interoceptive Awareness & Person Perception
Pietra T. Bruni & Jo-Anne Bachorowski

18 Interpersonal emotion regulation contagion: reappraisal and distraction influences reappraisal and distraction of others
Ryota Kobayashi, Ken’ichiro Nakashima, Makoto Miyatani & Takashi Nakao

19 Clarifying the role of empathy in professional communication
Melissa Fuller, Elanor Kamans, Mark van Vuuren, Marca Wolfensberger & Menno de Jong

20 Vicarious emotions and behaviors of support and participation to the victims
Dolores Muñoz Caceres, Itziar Fernandez Sedano, Amparo Caballero Gonzalez & Pilar Carrera Levillain

21 Effects of cardiac biofeedback on decision making in stroke patients
Séphora Minjoz, Sonia Pellissier, Mélody Mailliez, Thierry Bollon, Elena Ottaviani, Valérian Phalempin & Pascal Hot

22 Assessing Empathy over Time – When Viewers Consciously and Physiologically Share the Feelings of Characters
Freya Sukalla
23 Emotions and school motivation
   Barbara Sini, Susanna Schmidt, Irene Mammarella, Enrica Donolato & Carla Tinti

24 Race, Multiple Identities, and Complex Emotions
   Cerenity E. Collins & Dawn T. Robinson

25 Predicting Emotional Responses to Experienced Racism
   Malissa Alinor, Cerenity Collins & Dawn Robinson

26 Interpersonal dynamics of emotion regulation in somatic symptom disorders
   Emine Okur Güney, Heribert Sattel, Daniela Cardone, Arcangelo Merla, Michael Witthöft & Peter Henningsen

27 Emotion regulation and mixed feelings in a population of various Body Mass Indexes
   Jeanne Richard, Catherine Audrin, David Sander & Géraldine Coppin

28 The role of habitual and goal-directed processes in instrumental learning with aversive outcomes
   Eike Kofi Buabang, Tom Smeets, Jan De Houwer, Oliver T. Wolf, Yannick Boddez & Agnes Moors

29 Dispositional Compassion Reflects Differences in Social Utility
   Joseph Ocampo & Dacher Keltner

30 Can the Appraisal Tendency Framework explain differential effects of positive emotions on sequential decision making?
   Thierry Bollon, Mélody Mailliez & Pascal Hot

31 Emotion generation and differentiation – An evidence accumulation modeling approach
   Ayelet Itzhak Raz & Nachshon Meiran

32 Translation and psychometric evaluation of the Regulation Emotion Systems Survey - Italian version
   Anna Maria Meneghini, Daiana Colledani, Gaia Carbon, Kalee De France & Tom Hollenstein

33 Data Knows You: Detecting Periodic Stress via Social Network
   Liang Zhao, Qi Li, Feng Yu & Ling Feng

34 Alexithymia: the missing link between autism and anorexia?
   Laura Vuillier & Rachel Moseley

35 Is facial expression in response to gossip motivated by surprise or context?
   Bronagh Allison & Gary McKeown

36 Can two be better than one? Exploring the influence of multiple stressors on decision-making
   Paige Alenick & Yochi Cohen-Charash

37 Makeup Who You Are: Self-Expression Enhances Feelings of Authenticity When Effort is Put Toward Appearance
   Rosanna Smith, Michelle Van Dellen & Lan Anh Ton
38 Multidimensional stress prevention program’s effects on mood, affective states and emotion regulation among university students
   Romina Evelyn Recabarren, Claudie Gaillard, Matthias Guillod & Chantal Martin Sölch

39 The factorial structure of the Cognitive Emotion Regulation Questionnaire in Greek
   Maria Markou, Myria Ioannou, Stephanie Stephanou & Panayiotis Stavrinides

40 Hate as a Distinct Emotion
   Ashley Goodvin, Ira Roseman & Amanda Steele

41 How to assess the frequency and efficacy of emotion regulation techniques? Validation of the ANPERT
   Stéphanie Haymoz, Philippe Genoud, Chantal Martin Soelch & Michaël Reicherts

42 Item Response Theory Analysis of the Social-Emotional Expertise Scale
   Madison Hooper, Pietra Bruni, Marcus Wild & Jo-Anne Bachorowski

43 The perceived social power of expressers’ of pride as a function of reactive emotions
   Moshe Goren, Shlomo Hareli & Ursula Hess

44 Emotions and Coping Strategies during Breast Cancer in Latina Women
   Anabel Castillo, Jennifer Mendiola & Jitske Tiemensma

45 Identifying Emotional Mediators that Link Experiences of Parental Hostility and Overindulgence to Engagement in Infidelity
   Leslie Gordon Simons & Ronald L. Simons

46 Priming pride promotes delay of gratification
   Einav Shimoni, Andrea Berger & Tal Eyal

47 Do punsters deserve the ill will and disrespect that can come their way?
   Richard Smith, Charles Hoogland, Edward Brown & Sung Hee Kim

48 Is Interpersonal Dislike a Discrete Emotion?
   Amanda Steele, Ira Roseman & Ashley Goodvin

49 Compassion Fatigue, Emotional Regulation, and the Stress Process Model
   Richard Adams

50 JDM: Uncertainty, prediction and forecasting error
   Athanasios Polyportis & Flora Kokkinaki

51 Effect of interoceptive awareness on emotion regulation and implicit food craving in bulimic nervosa tendencies
   Minseung Kim & Jang-Han Lee

52 Trust with Advisors Predicts Ph.D. Students’ Burnout via Everyday Confidence and Anxiety
   Danfei Hu, Hyun Joon Park, Peter Ruberton & Jonathan Cook
53 Cognitive Inference of Emotion Faces when Processing Emotion Words and its Relation to Social-Emotional Expertise
Marcus G. Wild, Hannah Pacheco & Jo-Anne Bachorowski

54 Functional Connectivity Associated with Autonomous Sensory Meridian Response (ASMR): An Examination of Five Resting-State Networks
Stephen Smith, Beverley Fredborg & Jennifer Kornelsen

55 Impact of emotion in virtual reality on sense of presence of children and young adults
Lénaïc Cadet & Hanna CHAINAY

56 Neural correlates of individual differences in emotion recognition ability – an fMRI study
Petri Laukka, Kristoffer N. T. Månsson, Diana S. Cortes, Amirhossein Manzouri & Håkan Fischer

57 Male happiness is detected most quickly
Patricia Wilson & Kelsey Feret

58 Facial Muscle Responses and Participant Affective Ratings in Response to Social Interactions
Marcus G. Wild & Jo-Anne Bachorowski

59 The Social Sharing of Emotions with an Emotion Awareness Tool during a Computer-Supported Collaborative Task
Mattia Alexandre Fritz, Stéphanie Perrier & Mireille Bétrancourt

60 Prestimulus activation of right lingual gyrus leads to negative congruent perception during binocular rivalry
Angel Anna Zacharia, Navdeep Ahuja, Simran Kaur & Ratna Sharma

61 Sex differences in and associations between stress response systems after social-evaluative threat
Eefje S. Poppelaars, Johannes Klackl, Belinda Pletzer, Frank H. Wilhelm & Eva Jonas

62 What acoustic features predict listener behavior in a forced-choice vocal emotion recognition task?
Henrik Nordström & Petri Laukka

63 The challenge of making this world a better place: Analyzing the chivalrous quality of Quixoteism
Sergio Villar, Luis Oceja & Pilar Carrera

64 Nucleus accumbens activation to reward is negatively associated to maladaptive emotion regulation and depressive symptomatology
Claudie Gaillard

65 Comparing Appraisal Style Across US and Chinese College Samples
Leslie Kirby, Weiqiang Qian & Craig Smith

66 Designing Technology for Autism: Perspectives, Experiences and Expectations of Parents and Healthcare Professionals
Lauren Gillies, Karri Gillespie-Smith, Naeem Ramzan & Jean Rankin
67  *Functional Brain Correlates of Emotional and Social Memory*
Daphne Stam, Yun-An Huang & Jan Van den Stock

68  *Differentiating Multiple Appraisal Patterns Associated with Individual Negative Emotions*
Craig Smith, Weiqiang Qian & Leslie Kirby

69  *Different effects of emotional intelligence and dispositional mindfulness on children’s affectivity*
Jose M Mestre, Jorge Turanzas, Maria Gomez, Joan Guerra & Robin Kurilla

70  *Is it the behavior or the thought? Investigating mechanisms of change in a partial-hospitalized setting*
Myria Ioannou, Ivar Snorrason, Courtney Beard & Throstur Björgvinsson

71  *Dissatisfaction and Revenge as Motivations of Infidelity in Adolescence: Shame and Hostility as Associated Correlates*
Maria Dolores Sánchez-Hernández, Ana M. Beltrán-Morillas, María Alonso-Ferres, Laura Villanueva-Moya, Marta Garrido-Macías & Francisca Expósito

72  *Cortical processing of music involves multi band bihemispheric activation of Prefrontal and Limbic cortices*
Vinay Chitturi, Nishi Pegwal, Simran Kaur & Ratna Sharma

73  *Reasoning, Recommendations and Implications: Self-Transcendent Emotions with Marginalized Populations to Remedy Social Isolation and Loneliness*
Kelly L Ziemer

74  *Demystifying the self-transcendent effects of awe by using a new VR-method*
Massimo Koester & Agnes Moors

75  *The emotional consequences of social comparison on social media: Instagram popularity predicts hostile envious responses*
Jerica Braswell & Nicole Henniger

76  *Do emotions improve decision making about one’s own body?*
Morgane Metral & Mélody Mailliez

77  *The effectiveness of a dynamic multimodal emotion recognition accuracy training program*
Lillian Döllinger, Lennart Högman, Tanja Bänziger, Petri Laukka, Irena Makower, Håkan Fischer & Stephan Hau

78  *Do disgust condition food desirability more than fear?*
Cagla Cinar, Joshua M. Tybur & Paola Perone

79  *Vulnerability and Adolescent Black American Males’ Pro-Social Behaviors*
Johari Harris & Ann C. Kruger

80  *Effect of negative emotions on central executive function: utilizing a social-exclusion manipulation paradigm*
Ritsuko Azami, Mariko Obana & Ritsuko Nishimura
I'm Here For You: The Effects of Consoling Touch on Negative Emotional Experiences
Razia Sahi, Macrina Cooper-White, Matthew Lieberman & Naomi Eisenberger

Identity and Emotion in Ambiguous Romantic Relationships
Chelsea Kelly

Was that intentional? Infants use emotional communication to infer and re-enact others’ intended actions
Tyrone Johnson, Katey Workman, Peter Reschke, Eric Walle & Daniel Dukes

Does jealousy produce positive as well as negative behaviors?
Mingi Chung & Christine R. Harris

Conscious and Non-Conscious Affects: Distinct Effects on Feeling and Facial Expressions
Nicolas Pillaud & François Ric

A hybrid approach to experience sampling for studying emotions
Long Doan

Examining influences on frowning at “Mark is furious”: Word-driven simulation, morality-based evaluation, and minimal-group membership
Björn ’t Hart, Marijn Struiksma, Anton van Boxtel & Jos van Berkum

The Interplay between Positive Shared Emotions and Collaborative Processes in Group Problem Solving
Sunny Avry, Gaëlle Molinari, Guillaume Chanel & Mireille Bétrancourt

Conceptualizing Online Emotions as Emotives: A case study of #womenwhofarm on Instagram
Jennifer Sonne

The impact of emotional characteristics of words on interference control in Emotional Stroop Task
Kamil Imbir, Maciej Pastwa, Gabriela Jurkiewicz, Joanna Duda-Goławska & Jarosław Żygierewicz

The focusing illusion and the happiness of mothers: Comparing different family status choices
Adi Luria & Lior Nadler

Parallel sessions
14:00—15:30

Interdisciplinarity in emotion research: Limits and possibilities
A0.01
W. Gerrod Parrott

Affect Theory and Emotional Contagion: The Case of the Gothic
Laura Rosenthal

Interdisciplinary Emotion: Envy and Jealousy in Literature and Psychology
Bradley J. Irish

Emotion and evaluation – Appraisal theory and philosophy of emotion
Fabrice Teroni
Interdisciplinary histories of emotion
Katie Barclay

New directions in alexithymia research
A1.02
Neuroimaging evidence for different facets, dimensions, and types of alexithymia
Katharina S. Goerlich

Getting Lost in a Story: How Narrative Transportation Emerges from Narrative Perspective and Individual Differences in Alexithymia
Mattie Tops, Dalya Samur & Sander L. Koole

Autonomic reactivity to emotion and arousal in Alexithymia: Meta-analytic evidence
Georgia Panayiotou, Maria Panteli, Myria Ioannou, Olivier Luminet & Elke Vlemincx

The cultural meaning of alexithymia: A mixed-method approach in urban and rural Chinese outpatients
Andrew Ryder & Jie Chang

Interpersonal dynamics of emotion and emotion regulation
A1.03
Interpersonal emotion regulation in Japanese and Belgian couples
Anna Schouten, Michael Boiger, Alex Kirchner, Yukiko Uchida & Batja Mesquita

Emotion dynamics: Implications for interpersonal adjustment and emotion regulation
Dominik Schoebi & Tamara Luginbuehl

The Dynamics of Dyadic Emotion Regulation: Determinants and Consequences of Support Provision
Lisanne Pauw, Disa Sauter, Gerben Van Kleef & Agneta Fischer

Emotions during disagreements in Belgian and Japanese couples: A dynamic systems perspective
Michael Boiger, Alexander Kirchner, Anna Schouten, Yukiko Uchida & Batja Mesquita

The importance of feeling understood in relationships
Catrin Finkenauer

Individual talks: Emotion and culture
A2.07
The evaluation of 23 distinctive positive emotions in the Netherlands and Hong Kong
Rui Sun, Bryant P.H. Hui, Tiarah Engels, Wei Kai Hou & Disa A. Sauter

Do You Like Being Envied or Not? A Cross-Cultural Study
Derya Gürcan-Yıldırım & W. Gerrod Parrott

Facial emotion recognition in Germany and an indigenous group in Uganda: A cross-cultural comparison
Martin Krippel, Lars Dumke & Anna Tcherkassof
Emotions first and last: Positional patterns in written communication across cultures
Simon Schweighofer & David Garcia

Individual talks: Learning
The role of perceptual and conceptual properties in affective habituation
Oksana Itkes & Assaf Kron
Support for the goal-directedness of early emotional action tendencies from a TMS study
Maja Fischer, Chiara Fini, Marcel Brass & Agnes Moors
Comparing Three Models of Arousal in the Human Brain
Hadeel Haj Ali, Assaf Kron & Adam Anderson
Stress-induced Pavlovian bias in reward seeking behavior
Eva R. Pool, Alessio Giarrizzo, Yoann Stussi & David Sander
Neural markers of emotion dysregulation in acute trauma survivors predict chronic PTSD
Christine Larson

Individual talks: Trust, pride, and empathy
Evaluating those who express congruent or incongruent emotions
Wilco van Dijk
Antecedents of empathic feelings: similarity perception in experience and identity
Jacob Israelashvili & Rachel Karniol
Empathy: What’s Emotion Got to Do with It?
Natalia Ruiz-Junco
Pride before the fall? The interpersonal effects of self-focused and group-focused pride on trust
Gert-Jan Lelieveld & Eric Van Dijk
The impact of actual and perceived emotion regulation on interpersonal cooperation and trust
Danielle M Shore, Rens Hoegen & Brian Parkinson

Parallel sessions
16:00—17:30

Emotion processing from faces in typical and atypical populations
Negativity bias in recognition of neutral facial expressions in individuals with PTSD and child maltreatment
Monique C Pfaltz, Sandra Passardi, Peter Peyk, Tanja SH Wingenbach, Ulrich Schnyder & Sonja Weilenmann
Distinct automatic facial muscle response patterns to various observed facial emotional expressions
Tanja S.H. Wingenbach, Mark Brosnan, Peter Peyk, Monique C. Pfaltz & Chris Ashwin
Affective decoding of naturalistic behaviour
Sylwia Hyniewska, Wataru Sato & Catherine Pelachaud

Differences in perceptual after-effects to angry and happy facial expressions of emotion in autism
Chris Ashwin & Phillip Griffiths

The positive challenge: How studying expressions of positive affect can inform emotion theory

Perceiving emotions from different expressive modalities: is there a multimodal advantage for positive emotions?
Marcello Mortillaro & Daniel Dukes

Measurement and implications of different kinds of humor and laughter
Ursula Beermann

Loud and Unclear: Real-Life Vocalizations During Intense-Positive Situations
Doron Atias

Good Vibrations: A Review of Vocal Expressions of Positive Emotions
Roza Kamiloglu, Disa Sauter & Agneta Fischer

Creating hate, eliminating hate: Some timely insights

The social cognition of regulating negative intergroup emotions
Sabina Cehajic-Clancy & Michal Bilewicz

Out of the darkness: Appraisals, responses, and narratives of hatred and related emotions
Ira Roseman, Amanda Steele & Ashley Goodvin

On the virtues of hate: Analysing the mobilisation discourse of Donald Trump and ISIS
Stephen Reicher

Eliminating Hate: What we think will work vs. What does work
Katherine Aumer & Anne Cathrine Krebs Bahn

Neurorobotic models of emotion

Emotion as a collection of metacontrol mechanisms in natural and artificial systems
Marwen Belkaid

Embodying Affect in Autonomous Interactive Robots
Lola Canamero

Emotional interaction as a way to regulate robot behavior
Sofiane Boucenna

Individual talks: Evolution and fear processing

Familiarity Breed Humanity: People Decode Facial Expressions of Emotion in Dogs Better than in Chimpanzees
Lasana Harris & Sarah Sullivan

Experience with enacted autonomy affects threat perception
Yulia Chentsova Dutton, Derya Gürcan-Yıldırım & Andrew Ryder
Surprise and freezing responses
  Marret K. Noordewier, Daan T. Scheepers, John F. Stins &
  Muriel A. Hagenaars

Emotional coherence of fear
  Ben Meuleman & David Rudrauf

Does maternal odor impact fear processing in infancy?
  Sarah Jessen

Friday July 12

Parallel sessions

What do we really know about emotion regulation? A0.01
  Managing the daily stress of politics
  Brett Ford, Matthew Feinberg & Sabrina Thai

Emotion Regulation Knowledge
  Katharine Greenaway

Trait Emotion Regulation Strategies as Density Distributions of States
  Elisabeth S. Blanke, Elise K. Kalokerinos, Michaela Riediger &
  Annette Brose

Imprecision Inhibits Implementation: Low Emotion Differentiation is Associated
  with Ineffective Emotion Regulation in Daily Life
  Elise Kalokerinos, Yasemin Erbas, Eva Ceulemans & Peter Kuppens

A problem shared is a problem halved? Affective and interpersonal functions of
  everyday emotional sharing
  Michaela Riediger & Antje Rauers

Tears, tears, tears: Current topics in the field of emotional crying A1.02
  Are there any beneficial effects of crying? The case of pain perception and mood
  Asmir Gračanin, Michelle C. P. Hendriks & Ad J. J. M. Vingerhoets

A model of positive tears
  Janis Zickfeld & Beate Seibt

Crying in context: The interaction between weeping and situational cues in
  attributions of emotion
  Marc Baker

Endorsement of Gender Roles Across Cultures and their Influence on Evaluations
  of Crying
  Leah Sharman, Genevieve Dingle, Ad Vingerhoets, Harrison Manley,
  Marc Baker, Asmir Gračanin, Agneta Fischer, Kunalan Manokora,
  Igor Kardum & Eric Vanman

Crying and the machine: What automatic analyses may (not) reveal about
  spontaneous emotional tears
  Dennis Küster, Marc Baker & Tanja Schultz
All that’s valence is not affective – affective and non-affective representations of valence and emotion

How Does The Emotional Experience Evolve? Feeling Generation as Evidence Accumulation
Ella Givon, Ayelet Itzhak-Raz, Anat Karmon-Presser, Gal Danieli & Nachshon Meiran

Disentangling brain activity related to the processing of emotional visual information and emotional arousal
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Mandy Visser, Deborah Parker, Simone Simonetti, James Burrell, John Hodges & Fiona Kumfor

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Fiona Kumfor, Jessica L Hazelton, Jacqueline A Rushby, John R Hodges & Olivier Piguet

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Isabela Granic

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Rebekka Schnepper, Claudio Georgii & Jens Blechert

A license to kill your diet: Emotions as a justification for self-regulation failure
Catharine Evers, Jessie de Witt Huberts & Denise de Ridder

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Aurélie L. Manuel, Fiona Kumfor, John H. Hodges & Olivier Piguet
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Ilker Dalgar, Hans IJzerman & Nebi Sümer

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Rami Gabriel

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89 Bio-sensing Emotion Estimated Method and Application  
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90 “When in Rome, do as the Romans do” - History of conformism research  
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92 Emotion Manipulation Through Music  
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Emotional uses and understandings of music: From theoretical to clinical implications  
Using melody / jingles to enhance memory of therapeutic strategies in children during anxiety treatment  
A. Waters, M. Zimmer-Gembeck, M. Craske, Daniel Pine, Brendan Bradley & Karin Mogg

Influence of Alexithymia on Emotion Differentiation and Psychophysiological Responses to Music  
Joel Larwood, Genevieve Dingle & Eric Vanman

Emotion regulation through music listening in adolescence: a mobile experience sampling study  
William M Randall, Margarida Baltazar & Suvi Saarikallio

Trait empathy contributes to the intensity of music-induced emotions: Evidence from self-reports and psychophysiology  
Jonna K. Vuoskoski & Tuomas Eerola

Interdisciplinary perspectives on jealousy A1.02  
Jealousy and Compersion  
Aaron Ben-Ze’ev

Sexual jealousy motivates men’s support for female honor norms  
Pelin Gul & Tom Kupfer

The Rationality of Jealousy  
Arina Pismenny
Emotion and effort

Implicit Affect and Cognitive Effort: Boundary Conditions
Guido H.E. Gendolla & David Framorando

Prosocial apathy: When helping others is just too much effort
Matthew Apps

Implementation intentions promote affective transfer from goals to cues
Ruud Custers & Thomas Webb

The Role of Affect in Cognitive Control: A Computational Approach and its Relevance for Depression
Ivan Grahek, Sebastian Musslick & Amitai Shenhav

The Power and Pitfalls of Positive Affect: Context-Dependent Effects of Mood on Effort
Henk van Steenbergen

Emotions as sources of social information

Why that face? The influence of another person’s emotion expressions on situation perception
Shlomo Hareli & Ursula Hess

What’s beyond appraisals in inferences drawn from perceived emotions?
Shimon Elkabetz, Ursula Hess & Shlomo Hareli

Emotions as strategies for social influence
Brian Parkinson

Anger vs. Sadness: Cultural norms and individual differences determine reactions to negative events
Konstantinos Kafetsios & Ursula Hess

Individual talks: Measurement and general theory

Emotions: The Distinction between Function and Value
Dong An

The Structure Of Emotion
Kris Goffin

Network Analysis as a Means of Assessing Translatability of Emotion Words
Katie Hoemann, Margherita De Luca & Lisa Feldman Barrett

An Indirect Scaling Method for Testing Quantitative Cognitive Emotion Theories
Rainer Reisenzein & Martin Junge

Parallel sessions

16:30—18:00

Organization of emotional memories

Prior episodic memories support transitive inference of Pavlovian conditioned fear responses
Blazej Baczkowski, Joseph Dunsmoor, Arno Vilringer, Guillen Fernandez & Marijn Kroes
In for a pound, in for a penny: When reward does not enhance memory
   Deborah Talmi, Deimante Kavaliauskaite & Nathaniel Daw

Regulating defensive survival circuits through cognitive demand via large-scale network reorganization
   Lycia de Voogd

Mental context reinstatement balances retrieval of fear versus safety memories in the human brain
   Joseph Dunsmoor

Production and social functions of human laughter

   The acoustic distinctiveness of natural laughter during rewarding, affiliative, and dominant contexts
       Adrienne Wood

   Form and function in human coloughter
       Greg Bryant

   The neurobiology of laughter perception and production
       Sophie Scott

   On the ambiguity and specificity of laughter
       Magdalena Rychlowska, Gary McKeown, Ian Sneddon & William Curran

Interdisciplinary perspective on compassion and the effects of compassion training

   Changing negative attitudes with compassion training and reappraisal training in order to promote conflict resolution
       Patricia Cernadas Curotto, David Sander, Eran Halperin & Olga Klimecki

   Where does the brain change when training compassion?
       Sofie Valk

   Is compassion in response to suffering always appropriate?
       Julien Deonna

   Increasing compassion and empathy: Why and how?
       Marie Bayot, Rebecca Shankland, Isabelle Roskam & Moïra Mikolajczak

Individual talks: Interpersonal emotions

   The social impact of guilt
       Eglantine Julle-Daniere, Jamie Whitehouse, Aldert Vrij, Erik Gustafsson & Bridget, M. Waller

   Introducing the DRAPE: Display Rules Assessment for Positive Emotions
       Kunalan Manokara, Disa Sauter & Agneta Fischer

   How Social Comparisons affect the Emotional Reactions to Others’ Fortunes and Misfortunes
       Lea Boecker

   The differential effects of anger and contempt in interpersonal relationships
       Inmaculada Valor-Segura, María Alonso-Ferres, Agneta Fischer & Bertjan Doosje
Individual talks: Emotions in and by groups

The role of emotions on populist attitudes when encountering injustice
Ekaterina Lytkina & Arvid Kappas

Collective Emotions and Social Resilience in the Digital Traces After a Terrorist Attack
David Garcia & Bernard Rimé

Social Sharing of Political Emotions in Online Populist Communications
Philipp Wunderlich

Analysing affective dynamics through sentiment in social media status updates
Max Pellert, Simon Schweighofer & David Garcia

Individual talks: Cognitive processes in emotion

The grapes of grudge: Economic decisions are more favorable for friends than strangers
Janna Katrin Ruessmann & Sascha Topolinski

Towards an Appraisal Theory of Mood
Mara McGuire

Fluency, emotion and the perception of time
Mark Rotteveel

When feeling is for seeing: the impact of emotions on visual perception
Aurélien Graton

A taste of the unexpected
Lotte van Dillen, Marieke Jepma & Marret Noordewier

Saturday July 13

Parallel sessions
10:00—11:30

When and why do bodies elicit disgust?

Attentional biases associated with individual differences in disgust sensitivity: An eye tracking study
Fieke M. A. Wagemans, Willem W. A. Sleegers, Mark J. Brandt & Marcel Zeelenberg

Disgust, Shame and Breastfeeding
Pascale Sophie Russell, Michele Birtel, Kathryn Hart & Debbie M. Smith

Pathogen disgust and the benefits of interpersonal contact
Joshua Tybur & Tom Kupfer

Is my disgust showing? Self-other agreement in disgust sensitivity
Annika Karinen, Joshua Tybur & Reinout de Vries

What kinds of unusual body presentations specifically elicit social disgust?
Roger Giner-Sorolla & John Sabo
The influence of emotions on cognitive functioning

How desired emotional states impact attention and attentional control
Julia Vogt, Bahram Mahmoodi Kahriz & Joanne Bower

The influence of emotional cues on prospective memory: a systematic review with meta-analyses
Thomas Hostler, Chantelle Wood & Chris Armitage

Emotional arousal interacts with priority in affecting cognition
Michiko Sakaki

Affective working memory is not distinguishable from working memory: a psychometric approach
Annette Brose, Peter Kuppens & Florian Schmiedek

Influence of everyday mood on naturalistic prospective memory in aging
Francesco Pupillo, Louise Phillips Phillips & Katharina Schnitzspahn

Emotions as linking pins between individuals and collectives

Collective emotions in open vs. closed professional kitchens and the role of emotion expression norms
Svenja Anna Wolf, Lukas D. Schakel & Eftychia Stamkou

The Affective Foundations of Hierarchy: A Theoretical Investigation of Group Activities on GitHub
Jonathan Morgan, Kimberly Rogers, Nikolas Zöller, Jun Zhao & Tobias Schröder

Perceived emotional synchronization and shared flow in collective sports-physical activities
Estibaliz Mateos-Pérez, Larraitz Zumeta, José J. Pizarro, Magdalena Bobowik, Nekane Basabe, Anna Wlodarczyk, Saioa Telletxea & Alberto Amutio

Positive effects of negative group affective states: Anxiety about group assignments predicts student group performance
Marc Heerdink & Astrid Homan

Emotional Games: How Sports Coaches' Emotional Expressions Shape Players' Emotions, Inferences, and Team Performance
Gerben van Kleef, Arik Cheshin, Lukas Koning & Svenja Wolf

Individual talks: Emotion perception

Exploring the smile discrimination literature: A scoping review
Michael Philipp & Melanie Thacker

The Importance of Posed Facial Expression Production and Presentation Method on Authenticity Discrimination
Mircea Zloteanu, Eva Krumhuber & Daniel Richardson

Posed versus spontaneous expressions - can we tell the difference?
Shushi Namba, Russell Kabir, Takashi Nakao & Eva Krumhuber
The Relation Between Infant Emotion Matching and Early Childhood Emotion Understanding
Marissa Ogren & Scott P. Johnson

Individual talks: Language and beliefs

The primacy of emotion categories: Uncovering 13 kinds of emotion evoked by music across cultures
Alan Cowen, Xia Fang, Disa Sauter & Dacher Keltner

Can the languages migrants use to express emotions define their cultural belonging?
Alex Panicacci

Emotion systems in mobile and sedentary hunter-gatherers
Ewelina Wnuk & Yuma Ito

Scripted Emotion Concepts
Gen Eickers

Keynote: Dacher Keltner 12:00—13:00

Award ceremonies and closing 13:00—13:30
The topic of emotion is generally thought to be interdisciplinary. Multidisciplinary societies such as ISRE provide researchers the opportunity to learn about developments in other fields, yet most of the symposia, talks, and posters report research from just one discipline. This symposium considers the value of such interdisciplinary sharing and explores the potential for research that is truly interdisciplinary, whether it be by reviewing and combining insights from several disciplines or by collaboration among researchers from multiple fields who combine their knowledge and methods. The speakers in this symposium address this issue in a variety of ways. The speakers themselves are in departments of philosophy, psychology, literature, or history. Some have participated in interdisciplinary research projects or research centers. Some have attempted the synthesize findings from multiple disciplines. Three are currently editors of emotion journals and regularly deal with compatibility and communication between disciplines. Each speaker will consider the potential benefits of interdisciplinary research as well as the limitations and difficulties that arise.

Interdisciplinarity in Emotion Research: Limits and Possibilities

W. Gerrod Parrott

I will discuss interdisciplinary research on emotion, drawing from research on shame. Interdisciplinary approaches to emotion take many forms. Researchers commonly glean ideas or test theories from other disciplines; there are many examples of cross-fertilization between psychology, anthropology, history, and literature about shame. Researchers also collaborate with or borrow techniques from other disciplines to conduct research that is truly multidisciplinary. Several examples of research on shame (including some of my own) demonstrate the benefits of such cross-fertilization, but limitations and challenges are evident as well. One difficulty is simply the fact that the assumptions, methods, and knowledge bases of academic disciplines are so very different—interdisciplinary emotion meetings (e.g., ISRE) and journals (e.g., Emotion Review) can only function if researchers have some knowledge outside their own discipline or if authors communicate with awareness that their audience includes outsiders. A second limitation is that different disciplines really do ask different questions and care about different things. Interdisciplinary research requires that there be some subject matter that multiple disciplines have in common. There are times when disciplines seem to perceive almost no overlap on the multidisciplinary Venn diagram, as when anti-essentialist humanists reject psychologists' isolation of emotions from their context, and
psychologists dismiss humanist explorations of particular cases and episodes as not being about emotion per se. If commonalities can be found, however, interdisciplinarity can help to overcome the limitations of any one approach.

**Affect Theory and Emotional Contagion: The Case of the Gothic**

Laura Rosenthal

In the last twenty years, scholars in the humanities have taken renewed interest in emotions, a development that holds the potential for cross-fertilization with psychologists. But humanities scholars tend to reject psychology in favor of psychoanalysis, embracing the study of “affect” while viewing “emotion” with skepticism. In this paper I will consider the possibility that exchange between the disciplines could be mutually beneficial. My three points of reference will be emotion theory, affect theory, and gothic literature, a genre that appears at a key historical moment with the goal of a particular emotional affect (terror, horror) that depends on the movement of feelings from body to body. In Theresa Brennan's case for “the transmission of affect,” feelings also move from one person to another, and people absorb emotions from their environment. Brenan draws on psychiatry, medicine, and psychoanalysis, but seems unaware of the parallel study by psychologists of “emotional contagion.” On the other side of the divide, “affect theory” has made little headway into studies of emotion outside of the humanities. The difference, I will suggest, lies in Brenan's suggestion that before the eighteenth century emotions were generally not understood as individual but as collectively produced, and they had different consequences for people in different social positions. Gothic novels appear at the fulcrum of this change, and thus become productive test cases for tensions and intersections between affect theory and emotional contagion. By focusing on this historical turning point, I hope to suggest the benefits of thinking through both disciplines.

**Interdisciplinary Emotion: Envy and Jealousy in Literature and Psychology**

Bradley J. Irish

In Emotion in the Tudor Court: Literature, History, and Early Modern Feeling (Northwestern University Press, 2018), I argued that humanist scholars working on the literary history of emotion should pursue a research agenda that not only relies on familiar analytical methods from literary and historical studies, but that also draws upon the insights of the modern affective sciences. In this talk, I model such disciplinary interaction—that is, show how different research traditions can inform one another—via a brief case study: the historical understanding of rivalrous emotions (envy and jealousy) in Renaissance England. Modern psychological theories of envy and jealousy help shed light on historical instantiations of these emotions, while these particular historical manifestations also, in turn, provide evidence that helps recontextualize and strengthen the theories emerging from modern psychology. The best way to consider historical emotion is one that thusly draws from such multiple research traditions—but it is one
that requires careful consideration, as well as a willingness to be less territorial about the boundaries and domains of one's disciplinary home.

**Emotion and evaluation – Appraisal theory and philosophy of emotion**

Fabrice Teroni

The aim of this talk is to examine the potential interactions between approaches in psychology and philosophy of emotions that emphasize the fundamental connections of emotions to values and evaluations. According to appraisal theory, emotions are – or are caused by – sequences of appraisal checks that assess whether a given target is novel or not, intrinsically pleasant or unpleasant, goal congruent or incongruent, etc. Appraisalists often claim that these sequences of “molecular” appraisals are psychologically more “real” than “molar” appraisals, which more readily correspond to folk evaluative concepts (“offensive”, “admirable” etc.). Philosophical approaches that emphasize the evaluative dimension of emotion, according to which emotions are evaluative judgements, evaluative thoughts or evaluative perceptual experiences, have almost exclusively focused on these concepts. So, how should we understand the relation between the psychologist’s molecular appraisals and the philosopher’s evaluations? In this talk, I shall explore three ways of understanding this relation. First, the relation may be conceptual: molecular appraisals constitute an analysis of folk evaluative concepts. Second, it may be epistemological: molecular appraisals constitute reasons to think that folk evaluative concepts apply to the target. Third, the relation may be ontological: molecular appraisals refer to properties that exist, and evaluative properties are nothing over and above these properties. I shall assess these three ways of understanding the relation and examine on this basis whether it makes sense to claim that molecular appraisals are psychologically more real than molar appraisals.

**Interdisciplinary histories of emotion**

Katie Barclay

If historians have a shared concern with locating events or experiences in temporal contexts (with a fair level of sceptism towards ‘universal’ explanations), we are a broad church, encompassing a wide range of theories and methodologies. This is not to say that historians are innately interdisciplinary; indeed, much of our most vibrant arguments reflect that theory and method often act as the critical dividing lines within our discipline. Historians are as likely to argue with each other over the basic principle of scholarly operation, as with those beyond our boundaries. This is as true of the history of emotions as any other topic, where a wide array of approaches have been brought in to help us access the historical experience of feeling – from psychology through to linguistics and visual analysis. One of the key dividing lines has been over the nature of the historical emotions project itself – are we historians of science, exploring how past people conceived of emotion, or historians of emotional experience, exploring what emotion ‘does’ within particular times and places. Our position on this question has required quite different
methodologies, that have cleaved the discipline more than is perhaps necessary. This paper reflects on how different knowledges and methods within and beyond history have enabled the history of emotions, the challenges of interdisciplinarity in this context, and what interdisciplinarity brings to the scholarship.

INTERDISCIPLINARITY IN EMOTION RESEARCH  🗓️ July 11th  ⏰ 14:00—15:30  🔄 A0.01

SYMPOSIUM

Creating Hate, Eliminating Hate: Some Timely Insights

Ira Roseman & Agneta Fischer

In a time of rising populism and anti-immigrant emotions around the world, this symposium discusses processes leading to the elicitation of hatred, and processes that can contribute to its reduction or elimination. Ira Roseman, Amanda Steele, and Ashley Goodvin present research on antecedents and responses characteristic of interpersonal dislike, anger, contempt, and hatred. They then discuss how particular beliefs and emotions, integrated within narratives of transformation, account for data on positive evaluations of Donald Trump. Stephen Reicher presents an analysis of how hatred is mobilized within accounts of virtuous resentment. Donald Trump’s speeches and material from an ISIS publication depict in-groups being undermined by unscrupulous others, whose destruction is necessary to maintain a moral order. Sabina Cehajic-Clancy presents her research showing that ingroups more than outgroups are perceived as moral. One way to restore positive intergroup relations is to present exemplars of outgroup moral action, which can regulate ingroup emotions and help overcome hatred toward the outgroup. Katherine Aumer discusses research comparing what people believe would eliminate their hatred for a person, to what has actually reduced hatred. Time away, distance, and forgiving the target are cited as most important methods; getting revenge and forgetting the incident were reported least important. Agneta Fischer, lead author of a recent integrative article on hate, will serve as discussant. Thus our symposium will present varying perspectives identifying factors that can elicit hatred, as well as factors that can help overcome it—a timely current topic.

HATE  🗓️ July 11th  ⏰ 16:00—17:30  🔄 A1.03

The social cognition of regulating negative intergroup emotions

★ Sabina Cehajic-Clancy & Michal Bilewicz

In this talk, I will present our recent research proposing shared perceptions of morality (perceiving out-groups as capable of moral conduct) is an essential social cognition for regulating intergroup relations in conflict or post-conflict societies. First, I will provide evidence that morality is a characteristic consistently ascribed to in-groups and not to out-groups leading to the formation of essentialized perceptions that out-groups are immoral. Then I will offer a systematic review of our research on moral exemplars grounded in the idea that shared perceptions of morality is vital not only in understanding but ultimately re-creating intergroup relations through targeting specific negative group-based emotions such as hatred. Finally, I will discuss practical implications of our research, such as its role in history
education and education policies in conflict and post-conflict environments.

Out of the darkness: Appraisals, responses, and narratives of hatred and related emotions

Ira Roseman, Amanda Steele & Ashley Goodvin

Press coverage of Donald Trump’s acceptance speech at the 2016 Republican convention noted his very dark depiction of the state of the country, despite evidence of American prosperity. Trump emphasized crime, terrorism, international humiliation, and a culture of corruption. Each problem was blamed on someone: e.g., Barack Obama, “crooked” Hillary Clinton, the “dishonest,” “disgusting” media, immigrants, and minorities. Trump asserted that he (and only he) could solve these problems, making America great again by attacking those responsible. We review findings from a study specifying phenomenology, behaviors, and goals that are differentially characteristic of interpersonal dislike, anger, contempt, and hatred. When examine Trump's speeches, tweets, and other communications to see which emotions are elicited and communicated by their content. We connect emotions in Trump’s messages to a theory of ideological structure and attachment (Roseman, 1994, 2017) that specifies a common structure of many strongly-held systems of belief. The theory proposes that transitions from very negative to very positive states can elicit political as well as religious and romantic passion. Varying emotions (e.g., fear and shame, as well as anger, contempt, and hatred) represent and intensify the negative origin and potential negative outcome path, while positive emotions (e.g., hope, pride, joy, love) represent the and intensify positive alternative. This theory and supporting data explain significant variance in 2016 vote choice, and may help account for the continuing intense devotion of Trump supporters.

On the virtues of hate: Analysing the mobilisation discourse of Donald Trump and ISIS

Stephen Reicher

In this talk, I shall examine the ways in which political actors mobilise hate against others. I shall argue that, while external observers focus on the negative aspects of such narratives – death, destruction and violence – this ignores the way in which this is embedded in construction of virtue. That is, speakers construct a virtuous and important ingroup whose position has been undermined by an unscrupulous other, and that the destruction of the other is necessary to reimpose a virtuous order. These, then, are narratives of hope and redemption and that is the basis of their appeal. In particular I shall focus on the role of resentment in hate narratives. That is, speakers invoke a sense of entitlement and loss which then legitimises the obliteration of those who have taken what group members deserve. These arguments will be illustrated using speeches of Donald Trump and the English language ISIS publication Dabiq.
In order to better understand effective methods of ending one's hate a sample of 270 people from the university subject pool answered a survey concerning their current and past feelings of hate. Of the participants who completed the survey, 87 discussed their current hate for someone and what they believed would be necessary to end their hate towards their target of hate. The remaining 183 discussed a previous hate for someone and what they found to be the most effective method for them for ending their hate towards their target. Of the participants who currently hate a person, they believed that the most effective method of ending their hate would be if the target of their hate went away (35%), asked for forgiveness (24%), if they could get revenge (14%), if they could forget the incident (13%), and if they forgave the target of their hate (13%). In contrast, for those who no longer hate their target, they reported overwhelmingly that time spent away and physical distance from the target (44%) and forgiving their target (39%) were the most effective methods of ending their hate. Having the target ask for forgiveness (9%), forgetting the incident (6%), and getting revenge (3%) were reported to be the least effective methods of ending one's hate for those who no longer hated their target. Hate may serve to inform us of potential threats to our well-being, thus removal of the target of our hate and our own forgiveness may serve to eliminate the threat.
Negativity bias in recognition of neutral facial expressions in individuals with PTSD and child maltreatment

Monique C Pfaltz, Sandra Passardi, Peter Peyk, Tanja SH Wingenbach, Ulrich Schnyder & Sonja Weilenmann

Individuals with Borderline Personality Disorder who show a high prevalence of trauma and child maltreatment tend to see neutral facial expressions as negative. Here, we explored whether individuals with posttraumatic stress disorder (PTSD) show a negative bias in recognition of neutral expressions and whether child maltreatment is linked to this bias. Methods: Thirty-nine PTSD participants, 44 traumatized (TC), and 35 non-traumatized healthy controls (HC) watched 300 one-second movies showing neutral and emotional expressions, and indicated whether a neutral or one of 9 emotional facial expressions were presented. Results: PTSD individuals performed more poorly than TC and HC in recognizing neutral expressions. They misinterpreted neutral expressions more often as anger and contempt than HC and TC. Comparisons of statistical model fits suggest that childhood maltreatment, especially sexual abuse, play a more important role for recognition of neutral expressions than a diagnosis of PTSD. Higher levels of self-reported child maltreatment were linked to more pronounced misinterpretations of neutral expressions as anger, fear, sadness and contempt. We are currently conducting a separate study in individuals with and without child maltreatment to assess whether our findings hold in study groups defined by the presence or absence of childhood maltreatment, rather than by the presence or absence of PTSD. Conclusion: Traumatic experiences, especially in childhood, may shape the interpretation of neutral facial expressions. A negative response bias for neutral expressions may lead to interpersonal problems, augmented feelings of threat and to a negative self-image.

Distinct automatic facial muscle response patterns to various observed facial emotional expressions

Tanja S.H. Wingenbach, Mark Brosnan, Peter Peyk, Monique C. Pfaltz & Chris Ashwin

That watching facial emotional expression leads to subtle facial muscle activation in observers in line with the valence of the observed expressions is a well-documented phenomenon ('facial mimicry'). That is, published research on automatic facial mimicry has mostly included the corrugator and zygomaticus muscles when investigating subtle responses to observed facial emotional expressions allowing for valence-based differentiation between emotion categories. Evidence for facial mimicry being an emotion-specific response is rather limited as the few published studies including other muscles have shown...
inconclusive results. The current study included five facial muscle sites (corrugator, zygomaticus, levator, depressor, frontalis) and 10 emotion categories (anger, disgust, fear, sadness, surprise, happiness, pride, embarrassment, contempt, neutral) to investigate whether ‘facial mimicry’ is specific to the observed emotion category. Facial electromyography (EMG) from 84 participants was recorded. Due to overlapping facial muscle activation for different emotion categories (e.g. corrugator for negative valence emotions), the EMG responses per muscle site were combined to response patterns across muscles. These pattern for each emotion category were contrasted to all other emotion categories included in the study. Results showed that after correction for multiple comparisons most emotion categories had distinct facial EMG response patterns within and across valence categories. The current study thus demonstrates that facial mimicry is an emotion-specific phenomenon and not simply valence-based.

**Affective decoding of naturalistic behaviour**

*Sylwia Hyniewska, Wataru Sato & Catherine Pelachaud*

It has been argued that we decode others’ emotional states and/or associated appraisals of ongoing events from particular sets of facial action units (AUs). Rare are the studies, however, to have systematically tested the relationships between the decoding of emotions/appraisals and sets of AUs. The results reported so far are mixed. Furthermore, no study analysed the decoding of spontaneous facial behaviour observed in naturalistic settings. We asked participants (N = 122) to judge facial expressions filmed unobtrusively in real-life situations. Participants were asked to decode emotions (e.g. anger) and appraisals (e.g. suddenness). The AUs observed in the videos were annotated by certified experts using the Facial Action Coding System. We explored the relationships between the emotion/appraisal decoding and AUs using stepwise multiple regression analyses. The results revealed that all the rated emotions and appraisals were associated with sets of AUs. The profiles of regression equations showed AUs both consistent and inconsistent with those in theoretical proposals. The results confirm our hypothesis that the decoding of emotions and appraisals in facial expressions is implemented by the perception of sets of AUs. It seems however that the profiles of such AU sets could be different from previous theoretical suggestions.

**Differences in perceptual after-effects to angry and happy facial expressions of emotion in autism**

*Chris Ashwin & Phillip Griffiths*

Autism spectrum disorders (ASD) are characterised by difficulties in social interaction and communication alongside repetitive and restricted behaviour. The social difficulties often include problems identifying and understanding the emotional states of others. Emotion adaptation paradigms are one approach to investigate the perception of facial expressions, which involves presenting a facial expressions image for an extended period of time followed by the presentation of a prototypical face without any expression. People typically perceive an after-effect when judging prototypical faces which
appear as the opposite valence to the adapted expression. For example, if adapted to a happy expression people typically perceive a negative valence facial expression after-effect. The present study aimed to test emotional adaptation to negative and positive valence facial expressions. We recruited 21 adults with ASD and 21 adult control participants who all completed a baseline emotion recognition task followed by an emotion adaptation task, which included typical angry or happy expressions as well as 100% and 50% anti-images. Results showed the ASD group had poorer recognition of both angry and happy expressions at baseline, but no differences between groups were found for valence judgements of facial emotion after-effects to typical angry or happy expressions. However, the ASD group showed atypical perceptual after-effects when they were adapted to both angry and happy anti-images, with greater perception than controls of negative after-effects for anti-angry expressions and reduced after-effects compared to controls to anti-happy images. The results show strengths and difficulties in perceptual after-effects to anti-image expressions in adults with ASD.

SYMPOSIUM

New directions in alexithymia research

Olivier Luminet

Alexithymia is thought to reflect a deficit in the cognitive processing and regulation of emotional states. It involves: 1) difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal, 2) difficulty describing feelings to other people, 3) a reduced capacity to engage in fantasy, 4) a stimulus-bound, externally oriented cognitive style. In the past 20 years, there has been a burgeoning of research on the alexithymia construct. This symposium will highlight four important developments. Goerlich reviews neuroimaging studies showing that alexithymia is associated with differences in neural activity of several areas of the brain (amygdala, insula, anterior cingulate cortex and regions of the prefrontal cortex) that are important for the conscious as well as the unconscious perception and experience of emotions, emotional awareness, and the processing of rewards. Panayiotou presents a meta-analysis on autonomic reactivity to emotion in alexithymia. Identifying patterns of physiological reactivity to emotion in alexithymia allows investigating indicators of non-conscious processing of arousal and valence emotional response systems. Ryder examines the extent to which alexithymia is culturally shaped. His data illustrate the challenge to disentangle ethnic group variations that reflect deficits in emotional processing from those that reflect cultural values. Koole investigates linguistic issues by testing how much alexithymia scores can affect the ability of people to project themselves in fiction due to a lower use of first person perspective. The results emphasize that affective deficits involved in alexithymia would impair the capacity to mentally stimulate narrative worlds.
Alexithymia is a personality construct at the interface of cognition and emotion that has attracted scientific interest for four decades. Since the first neuroimaging study in the beginning of the millennium, neuroscientific research has continued to reveal the underpinnings of alexithymia in the brain, linking the construct to dysfunction in brain regions mediating cognitive-emotional processing. Here, I provide an overview of the brain regions exhibiting alterations in function and structure in relation to alexithymia and its different facets. Further, neuroimaging evidence for the existence of a cognitive and an affective dimension of alexithymia will be presented, and the usefulness of differentiating between different dimensions and types of alexithymia will be discussed. Finally, the clinical implications of these findings will be addressed and directions for future research will be provided.

Getting Lost in a Story: How Narrative Transportation Emerges from Narrative Perspective and Individual Differences in Alexithymia

Mattie Tops, Dalya Samur & Sander L. Koole

Narrative transportation refers to a psychological process in which people mentally project themselves into the world of a story. In the present research, we examined how narrative transportation emerges from the interplay between narrative perspective and individual differences in alexithymia, or chronic difficulties in emotional processing. We hypothesized that narrative transportation would be higher when people assume a first-person (rather than third-person) perspective and for people lower (rather than higher) on alexithymia. In an online study (N = 541) and a lab study (N = 55), participants with varying levels of alexithymia read first- and/or third-person narrated texts and then rated their narrative transportation. As expected, first-person stories evoked more narrative transportation than third-person stories, and global alexithymia was negatively correlated with narrative transportation. The effects of narrative perspective did not interact with cognitive facets of alexithymia (i.e., difficulties identifying, verbalizing, and understanding feelings). However, narrative perspective did interact with affective facets of alexithymia (i.e., emotionalizing and fantasizing): First-person (rather than third-person) stories elicited more narrative transportation at lower levels of affective alexithymia, but not at higher levels of affective alexithymia. The interaction effect was statistically significant in Study 1 and statistically significant in Study 2 after controlling for trait absorption. Together, these findings suggest the possibility that the emotional problems associated with alexithymia may stem from difficulties in mentally simulating narrative worlds.
Research yields mixed findings regarding alexithymia’s association with hyper- vs hypo-arousal responses to emotional stimuli. We present findings from a meta-analysis, addressing two questions a) whether alexithymia is associated with decreased, normal, or increased autonomic reactivity to emotional stimuli, and b) whether it is associated with baseline hyper-arousal. It additionally examines potential moderators of these alexithymia effects including type of emotional stimuli, clinical vs community population, participant age and gender, and alexithymia measure and selection method utilized. The meta-analysis focused on skin conductance and heart rate: Electrodermal responses are sympathetically mediated and reflect activation of the arousal system. Heart rate receives both sympathetic and parasympathetic influences and is sensitive to both arousal and valence emotional response systems. We expected to document the presence of autonomic hypo-reactivity in response to emotional challenges in alexithymia, possibly reflecting physiological blunting and immobilization as found in anxiety, depression and trauma patients. We also predicted baseline hyper-arousal in alexithymia. Indeed preliminary meta-analytic statistics indicate significant hypo-arousal reactivity to emotional tasks and baseline hyper-arousal. Effects of moderators are also discussed. Such findings provide indicative mechanisms that relate alexithymia to physical and mental illnesses: Impaired reactivity can lead to system depletion or intransigence and negatively affect the psychological and physiological flexibility required for mental health. It may also result in chronic hyper-arousal, related to an inability to process safety signals as often found in pathological populations.

The cultural meaning of alexithymia: A mixed-method approach in urban and rural Chinese outpatients

There is a longstanding cultural critique of alexithymia as a failure to conform to ‘Western’ emotion norms, a concern addressed empirically in a small research literature. In particular, research conducted in Chinese cultural contexts has shown that higher scores on the TAS-20 (relative to North-American samples) are driven largely by externally-oriented thinking. Moreover, this difference is mediated by endorsement of values reflecting traditionalism vs. modernity. Although there is a danger here of mistaking a culturally normative thinking style with psychopathology, the meaning underpinning this difference and how it plays out in clinical practice are poorly understood. We therefore adopted a mixed-method approach in a subset of urban (n=13) and rural (n=12) Chinese psychiatric outpatients who had scored highly on the TAS-20. These outpatients were administered the Mandarin translation of the Toronto Structured Interview for Alexithymia (TSIA). Despite the small sample (i.e., N=25), quantitative findings showed good agreement between interview and questionnaire measures of alexithymia with similar patterns of correlations with distress. We did have a good-sized sample for qualitative inquiry, applying thematic and conversational analysis techniques to verbatim TSIA transcripts. Chinese respondents often had difficulty responding to the TSIA questions, particularly EOT questions—and did so in ways reflecting local cultural norms rather than emotional processing deficits. This tendency was
particularly pronounced in rural participants. This study highlights advantages of mixed methods when studying cultural meaning. Future research should consider how to disentangle cultural group variations in alexithymia reflecting deficits in emotional processing from those reflecting cultural values.

ALEXITHYMIA  🗓️ July 11th  🕒 14:00—15:30  ⬤ A1.02

SYMPOSIUM

The positive challenge: How studying expressions of positive affect can inform emotion theory

Marcello Mortillaro & Daniel Dukes

Traditionally, the prevailing assumption concerning emotional expression was that only a small set of almost exclusively negative emotions become apparent in the face (reflecting quasi-automatic, internal, physiological reactions to external events). However, the rise of interest in positive emotions has challenged this assumption by broadening the research focus in terms of the number of positive emotions to be studied, the modalities to be considered and by showing the vital role that context plays when recognising others’ expressions. We will begin this symposium with two presentations on positive vocal expressions. In the first, Roza Kamiloglu will report findings from a comprehensive review of studies that investigate acoustic cues relating specifically to positive emotion in speech and vocalizations. Secondly, Doron Atias will present the results of a series of empirical studies that point to a critical role for context in disambiguating positive voices. Ursula Beerman will then present research on the measurement and recognition of different kinds of humour and laughter. Finally, we will present new findings on a cross-cultural study of emotion recognition of 8 emotions including interest, pride, joy and pleasure across different combinations of the modalities of face, body and voice. The symposium will therefore provide further evidence that research in positive emotion has contributed to emotion theory by moving the debate beyond (predominantly) negative, facially expressed emotions. Discussions of the experimental findings and the theoretical implications will be led by Hillel Aviezer and Daniel Dukes.

POSITIVE EXPRESSIONS  🗓️ July 11th  🕒 16:00—17:30  ⬤ A1.02

Perceiving emotions from different expressive modalities: is there a multimodal advantage for positive emotions?

* Marcello Mortillaro & Daniel Dukes

While most research in emotion expression and recognition has focused on the static facial expressions of a few emotions - almost all negative, the only exception being joy, - recent studies have argued that positive emotions may be more efficiently communicated by modalities other than the face, namely the voice and the body. In this study we investigated how 8 emotions (including 4 positive ones, namely pride, interest, joy, and pleasure) were recognized when presented in one of 7 perceptual conditions: face, voice, body, face and voice, face and body, body and voice, and face, body and voice. Six hundred thirty participants from two countries – Argentina and the US - were randomly assigned to one of the seven
perceptual conditions and viewed and/or listened to 160 emotional stimuli (affect bursts) performed by
ten actors and taken from the Geneva Multimodal Emotion Portrayals database. Results show that
expressive modalities are differentially successful at conveying the various emotions. Results confirm that
while the face is generally effective and sufficient in conveying the negative emotions, positive emotions
particularly benefit from the inclusion of other expressive modalities. While the recognition accuracy
from body expressions alone was generally low across emotions with the exception of fear and anger,
voice contained most of the salient information for pleasure. Implications of these results for theory will
be discussed and cross-cultural differences will be highlighted.

Measurement and implications of different kinds of humor and laughter

Ursula Beermann

Several researchers have established different types of smiling and laughter, some of them expressing felt
emotions of amusement or happiness (genuine smiles and laughter), some others representing masking
smiles or expressing positive emotions blended with negative ones (non-genuine smiles and laughter;
e.g., Bänninger-Huber & Rauber-Kaiser, 1989; Ekman & Friesen, 1982; Frank & Ekman, 1993). These are
usually distinguished by employing the Facial Action Coding System (FACS, Ekman, Friesen, & Hager,
2002). Furthermore, humor in general can have both positive and negative aspects. For instance,
laughing at oneself has been viewed as the core element of the sense of humor (Beermann & Ruch, 2011;
Comte-Sponville, 2010; McGhee, 1999) and predicts beneficent outcomes like life and marital satisfaction
(Terzic, 2018); at the same time, it is important to differentiate it from self-deprecating humor, which has
been identified as a maladaptive humor style connected with low self-esteem and negative outcomes
(Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003). Perceiving a person’s laugh as genuine results in the
attribution of more prosocial traits to this person (e.g., Beermann et al., in prep.). Expressing genuine
smiles seems to be affected by different factors such as genetic predisposition (Haase et al., 2015) and
social status of a person and their interaction partner (Côté et al., 2017). In this presentation, the
importance of differentiating genuine from non-genuine forms of smiling and laughter is demonstrated
by reviewing and discussing different studies on implications and outcomes, and aspects of social
interactions on genuine vs. non-genuine types of smiling and laughter.

Loud and Unclear: Real-Life Vocalizations During Intense-Positive Situations

Doron Atias

A basic premise of emotion theories is that experienced feelings (whether specific emotions or broad
valence) are expressed via vocalizations in a veridical and clear manner. By contrast,
functional–contextual frameworks, rooted in animal communication research, view vocalizations as
contextually flexible tools for social influence, not as expressions of emotion. Testing these theories has
proved difficult because past research relied heavily on posed sounds which may lack ecological validity.
In a series of studies, we test these theories by examining the perception of human affective vocalizations evoked during highly intense, real-life emotional situations. We show that highly intense vocalizations of opposite valence (e.g., joyous reunions, fearful encounters) are perceptually confusable and their ambiguity increases with higher intensity. Using authentic lottery winning reactions, we show that increased hedonic intensity leads to lower, not higher perceived valence. Finally, we demonstrate that visual context operates as a powerful mechanism for disambiguating real-life vocalizations, shifting perceived valence categorically. These results suggest affective vocalizations may be inherently ambiguous, demonstrate the role of intensity in driving affective ambiguity, and suggest a critical role for context in vocalization perception.

Good Vibrations: A Review of Vocal Expressions of Positive Emotions

Roza Kamiloglu, Disa Sauter & Agneta Fischer

Researchers examining nonverbal communication of emotions are becoming increasingly aware of differentiations between different positive emotional states like interest, relief, and pride. Given the importance of the voice in communicating emotion in general, and positive emotion in particular, it is remarkable that there is to date no systematic review of what characterizes vocal expressions of different positive emotions. Furthermore, integration and synthesis of current findings is lacking. In this talk, we will review the studies (N = 108) investigating acoustic cues relating to specific positive emotions in speech prosody and nonverbal vocalizations. Evidence suggests that happiness as expressed in the voice is generally loud with high variability in loudness, high and variable in pitch, and high in the first two formant frequencies. When specific positive emotions are directly compared with each other, pitch mean, loudness mean, and speech rate revealed differences among these emotions, with patterns mapping onto emotion families. For instance, pitch is higher for epistemological emotions (amusement, interest, relief), moderate for savoring emotions (contentment and pleasure), and lower for prosocial emotion (admiration). Furthermore, the acoustic patterns are attributable to differing arousal levels as described in previous research. These findings will be discussed in relation to limitations in extant work and concrete proposals will be provided for future research on positive emotions in the voice.

Interpersonal Dynamics of Emotion and Emotion Regulation

Lisanne Pauw & Michael Boiger

Emotions are inherently social. During ongoing interactions, people continuously impact each other’s emotions and they capitalize on this interpersonal emotion system to regulate each other towards psychological and relational equilibrium. This symposium presents recent advances in research on the interpersonal dynamics of emotion and emotion regulation. Five presenters discuss how people shape
and regulate each other’s emotional experiences and behaviors, and which consequences these interpersonal dynamics bear at the level of the individual, the relationship, and the cultural context. First, Catrin Finkenauer will discuss the importance of feeling understood for close relationships and the relational effort that goes into achieving this mutual understanding. Second, Dominik Schoebi will demonstrate the role of dynamic emotional attunement during interactions for relationship satisfaction. Third, Lisanne Pauw will talk about whether and how people may come to understand what the other person needs in the context of a supportive interaction, looking into the role of empathic accuracy in support provision. Fourth, in a study with Belgian and Japanese romantic partners, Michael Boiger will show how couples’ emotional interactions gravitate towards those emotional states that are instrumental for achieving culturally valued relationship goals. Finally, Anna Schouten will demonstrate how partners regulate each other’s emotions towards these culturally valued emotional states by employing culturally specific interpersonal emotion regulation strategies.

### Interpersonal Dynamics

**July 11th | 14:00—15:30 | A1.03**

#### Interpersonal emotion regulation in Japanese and Belgian couples

* Anna Schouten, Michael Boiger, Alex Kirchner, Yukiko Uchida & Batja Mesquita

During ongoing interactions, the emotions of one partner unfold and evolve dynamically with the emotions of the other partner. In our research, we find that these dyadic emotional trajectories differ across cultures: Whereas the interactions of Belgian couples gravitate towards mutual annoyance, interactions of Japanese couples gravitate toward mutual empathy. Yet, little is known about the underlying processes that account for cultural differences in these prevalent dyadic emotional states. In this study, we propose that interpersonal emotion regulation (IER) and, more precisely, the culturally specific use of IER strategies promotes cultural differences in dyadic emotional states. First, we predict that Japanese couples more commonly use other-accepting IER strategies whereas Belgian couples use other-rejecting IER strategies. Second, we predict that the use of these IER strategies is associated with the partners’ experience of culturally prevalent emotional states (annoyance in Belgium and empathy in Japan). To test these predictions, we coded previously collected disagreement interactions of N=58 Belgian and N=80 Japanese couples for IER behaviors using the Specific Affect Coding System (SPAFF). First findings indicate that IER behaviors differ across cultures and account for the prevalent dyadic emotional states in line with our predictions. These results thus shed a first light on the interpersonal process whereby partners regulate each other’s emotions towards culturally valued emotional states.

**Emotion dynamics: Implications for interpersonal adjustment and emotion regulation**

* Dominik Schoebi & Tamara Luginbuehl

Emotional interdependence is a defining feature of intimate relationships, and peoples’ emotion dynamics are tightly interconnected with those of the intimate partner (Randall & Schoebi, 2018). Arguably, the coordinated emotion dynamics reflect partners’ regulation and dysregulation of emotions.
through intimate interactions. The current paper examines this idea, linking individuals’ emotion dynamics to interpersonal attunement during daily conflict and intimacy, the partner’s perceptions of their responsiveness in daily interactions, and long-term relational adjustment. Furthermore, we examined links between individuals’ daily emotion dynamics and reciprocity of facial expressions of emotions during support interactions, and daily reports of interpersonal emotion regulation.

**INTERPERSONAL DYNAMICS**  ⌚ July 11th  ⌞ 14:00—15:30  ⬆ A1.03

**The Dynamics of Dyadic Emotion Regulation: Determinants and Consequences of Support Provision**

* Lisanne Pauw, Disa Sauter, Gerben Van Kleef & Agneta Fischer

People often regulate their emotions interpersonally by telling others about their emotional experiences (social sharing). Extant research has investigated the prevalence and effectiveness of social sharing, but few studies have looked into the process of sharing itself. What needs do sharers have and do listeners pick up on these needs? In the current study, our aim was to examine the determinants and consequences of need-fulfilling support provision. To this end, 200 participants were randomly assigned the role of sharer or listener. For eight minutes, the sharer discussed an upsetting situation, while the listener responded naturally. Afterwards, both individually watched the video-recorded interaction in fragments of 20 seconds, rating either their experienced emotional intensity and socio-affective and cognitive support needs (sharer), or their perception of the sharer’s emotional intensity, as well as their own support provision (listener) for each fragment. Both sharers’ support needs, as well as listeners’ accurate emotion perception predicted adequate support provision. The more accurate listeners perceived sharers’ distress level, the more they fulfilled sharers’ socio-affective (but not cognitive) support needs. Surprisingly, while general levels of perceived support predicted greater perceived benefits and closeness, need-fulfilling support provision did not.

**INTERPERSONAL DYNAMICS**  ⌚ July 11th  ⌞ 14:00—15:30  ⬆ A1.03

**Emotions during disagreements in Belgian and Japanese couples: A dynamic systems perspective**

* Michael Boiger, Alexander Kirchner, Anna Schouten, Yukiko Uchida & Batja Mesquita

Emotions help people navigate their social and cultural environments. In the present study, we aim to show that emotions that are instrumental in the respective cultural context play a central role during couple disagreements. During ongoing interactions, partners’ emotions are often pulled towards certain recurring or stable dyadic states, also called attractors (e.g., partners become locked in anger during a conflict). We predicted that these attractors differ between cultures systematically: Self-focused emotions such as anger or feelings of strength should be more common attractors in Belgium where they support autonomy goals; other-focused emotions such as shame or empathy for the partner should play a more central role in Japan, where they are instrumental for achieving culturally valued relatedness goals. Romantic couples (N=127) from Belgium and Japan completed questionnaires on relational functioning and participated in conflict interactions, which were video-recorded. After the interaction, participants
separately rated their emotional experience during video-mediated recall: Every 30s, the recording stopped, and participants indicated to what extent they had experienced each of 12 emotions. We identified emotional attractor states using state-space grids and a winnowing technique. In line with our predictions, the culturally most common attractor states reflected emotional states of the couple system that support relationship goals of autonomy in Belgium (e.g., mutual annoyance) and relatedness in Japan (e.g., mutual empathy). Moreover—at least in Belgium—couples who experienced these attractors reported higher relationship satisfaction and endorsed more culturally valued relationship goals (i.e., autonomy in Belgium).

INTERPERSONAL DYNAMICS  🕒 July 11th  14:00—15:30  ⤶ A1.03

The importance of feeling understood in relationships
Catrin Finkenauer

People desire and need to understand their relationship partners and, importantly, they need to feel understood by others in daily life. Yet their perceptions of being understood are only modestly related to actually being understood by others. In this presentation, Catrin Finkenauer provides an overview of research on relational processes that contribute to feeling understood and misunderstood in relationships. Taking a dyadic perspective, she will review empirical findings on the effects of feeling understood for people in relationships, both for their personal and relational wellbeing. The work she presents underscores the importance of feeling understood for both partners in the relationship. It also highlights the pitfalls of mistakenly assuming that one partner understands the other and shows that in ongoing relationships, partners need to continue updating each other on their thoughts, feelings, and dreams—even when they feel they understand each other.

INTERPERSONAL DYNAMICS  🕒 July 11th  14:00—15:30  ⤶ A1.03

SYMPOSIUM

Neurorobotic models of emotion
Marwen Belkaid

Neurorobotics has emerged as the scientific field interested in embodied neural systems. Inherently interdisciplinary, this line of research mixes methods and techniques from computational neuroscience, machine learning and robotics. It serves two complementary goals: designing efficient machines inspired by natural cognition, and understanding the brain through embodied intelligent machines. There have been significant interest and effort in the modeling of emotion-related phenomena in the field. This symposium thus aims to bring together researchers interested in how neurorobotic models of emotion can help understand human emotions and improve robots autonomy and social capabilities. Of particular interest are models that investigate the mechanisms underlying the emergence of emotion in natural and artificial organisms. The symposium will feature three talks and one discussant. Speakers: Dr Lola Cañamero, Dr Sofiane Boucenna and Dr Marwen Belkaid.
Discussant: Dr Frédéric Alexandre.

NEUROROBOTICS  🌅 July 11th ☀ 16:00—17:30  📍 A2.07

**Emotion as a collection of metacontrol mechanisms in natural and artificial systems**

Marwen Belkaid

Natural and artificial organisms engage a variety of processes to control their interactions with the environment. From a computational perspective, these first order processes are governed by a set of parameters which determine their functioning. On the other hand, metacontrol refers to the mechanisms that modify these parameters, allowing the system to adapt its behavior to different situations. To illustrate this, I will show results suggesting that mice exhibit a type of metacontrol in a decision-making experiment. I will also present robotic experiments in which metacontrol mechanisms help solve the task. I will argue that metacontrol is one the major features of emotion and that this conceptual framework is useful to understand emotional phenomena and to guide the design of cognitive architectures for autonomous machines.

NEUROROBOTICS  🌅 July 11th ☀ 16:00—17:30  📍 A2.07

**Embodying Affect in Autonomous Interactive Robots**

Lola Canamero

One of the key contributions that robots can make to emotion research is the possibility to implement, test, extract and analyze assumptions and consequences, assess the scope and "usefulness" of different conceptualizations, models and theories of emotions. Beyond computational models, robots permit to investigate how theoretical models "behave" when they are situated in, and in interaction with, real (versus simulated) physical and social environments. Since 1995, in my research, I have taken a "strong" approach to embodiment that models an "internal" as well as "external" affective embodiment. In this talk, I will argue that such affective embodiment can provide grounding for various cognitive and interactional skills that autonomous and social robots need, and how it can shed light towards understanding affect in humans. My specific model is biologically-inspired and builds on a synthetic physiology regulated using principles stemming from embodied AI, cybernetics (e.g., homeostasis and allostasis), ethology, neuroscience and dynamical systems. It provides a blueprint for a "core affective self" that endows robots with internal values (their own or acquired) and motivations that drive adaptation and learning through interactions with the physical and social environment. I will illustrate how such model has been used in my group over many years to ground a broad range of affective, cognitive and social skills such as adaptive decision making (action selection), learning (e.g., self-learning of affordances, learning to explore novel environments, learning to coordinate social interaction), development (e.g., development of attachment bonds, epigenetic development), and social interaction (e.g., robot companions for children).

NEUROROBOTICS  🌅 July 11th ☀ 16:00—17:30  📍 A2.07
**Emotional interaction as a way to regulate robot behavior**

Sofiane Boucenna

In this study, we study how emotional interactions with a social partner can bootstrap increasingly complex behaviors such as social referencing. Our idea is that social referencing as well as facial expression recognition can emerge from a simple sensory-motor system involving emotional stimuli. Without knowing that the other is an agent, the robot is able to learn some complex tasks if the human partner has some "empathy" or at least "resonate" with the robot head (low level emotional resonance). Hence, we advocate the idea that social referencing can be bootstrapped from a simple sensory-motor system not dedicated to social interactions.

**NEUROROBOTICS**

📅 July 11th ⌚16:00—17:30

### SYMPOSIUM

**Organization of emotional memories**

Deborah Talmi & Linda de Voogd

Memories for emotional experiences are typically well remembered. This is thought to be a result of immediate encoding effects, together with strengthening of subsequent consolidation processes. The selective prioritization of emotional experience can be adaptive insofar as it preserves memories that are personally significant. But persistent, intrusive emotional memories can be maladaptive. Hence, there is motivation to understand how emotional memories might be selectively attenuated so as to diminish the psychological impact of negative experiences. Here, we describe new research on the mechanisms involved in selecting and prioritizing long-term memories for emotional experiences in humans. Dr. Kroes will describe data showing that episodic memories can provide an organizational scaffolding to fear learning and expression. Dr. de Voogd will provide evidence that goal-directed attention with a high cognitive demand alters large-scale brain circuits involved in fear learning, thereby reducing recovery of emotional experiences. Dr. Talmi will provide data showing that the memory advantage of experiences that signal reward depends on competition that occur during recall. Dr. Dunsmoor will show that event boundaries that separate competing experiences of threat and safety adaptively segments emotional experiences into separate long-term memory traces. Collectively, the empirical data presented in this symposium make claims about the conditions by which long-term memories for emotional experiences are selectively strengthened as well as attenuated. They will be discussed critically by Dr. Smith, taking the adversarial philosophical perspective that emotions are not natural kinds, and therefore do not have a unique influence on memory.

**EMOTIONAL MEMORIES**

📅 July 12th ⌚16:30—18:00

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Prior episodic memories support transitive inference of Pavlovian conditioned fear responses

Blazej Baczkowski, Joseph Dunsmoor, Arno Vilringer, Guillen Fernandez & ⋆ Marijn Kroes

A critical challenge for animals is to predict potential danger in novel situations. When an animal learns that a specific stimulus predicts an aversive outcome it can generalize fear responses to novel stimuli that resemble it. Such generalization of fear responses based on sensory feature overlap is advantageous but also limited and inflexible. A more flexible strategy would be if animals could also use prior knowledge about the structure of the world to infer potential danger in novel situations. Recent research from the field of episodic memory indicates that animals can infer relationships between stimuli across distinct episodic experiences to form a “cognitive map” of the structure of the world. One form of inferential reasoning is transitive inference whereby animals can deduce that if stimulus A is related to stimulus B and stimulus B to stimulus C then stimulus A must be related to stimulus D. It is still unclear, however, whether animals can use transitive inference based on prior episodic experiences to predict danger in novel situation. Here I will present a study showing that humans can learn relationships between stimuli across distinct episodic experiences using transitive inference and that they use these prior episodic relational memories to generalize threat responses to novel stimuli. Hence, the relational organization of prior episodic memories provide humans with a flexible strategy to infer danger in novel situations.

In for a pound, in for a penny: When reward does not enhance memory

⋆ Deborah Talmi, Deimante Kavaliauskaite & Nathaniel Daw

When people encounter items that they believe will help them gain reward, they later remember them better than those that do not. While it is adaptive to preferentially remember experiences that will be useful later, it is unknown how the competition for memory resources is implemented in time, through the processes of encoding, consolidation, and retrieval. In two experiments we promised participants £1 for remembering some pictures, but only 10 pence for remembering others. Their ability to describe the pictures was tested after one minute and after 24 hours. Memory at immediate test showed effects of list composition, suggesting local competition at encoding and/or retrieval. These results are consistent with our recently-proposed emotional Context Maintenance and Retrieval model [Talmi, Lohnas, & Daw, Psychological Review, in press], supporting it as a general account of motivated memory. In contrast, relative to this baseline, more valuable memories were not preferentially retained following delay, suggesting no detectable role of competition for consolidation.
Anxiety-related disorders are the most prevalent among all psychiatric disorders and have a high comorbidity with other disorders. Despite this high prevalence (lifetime prevalence is ~30%), treatment often remains unsuccessful. Here I will propose a neural framework for understanding the cognitive regulation of anxiety which can serve as a heuristic framework for guiding hypotheses to improve treatment of anxiety-related disorders. I will discuss evidence showing that cognitively demanding tasks induce a reorganization between large-scale networks. For example, goal-directed eye-movements deactivate the amygdala, a key structure of the salience network, and when embedded during safety learning they attenuate later fear recovery (de Voogd et al., 2018). This downregulation engages a ventromedial prefrontal pathway known to be involved in cognitive regulation of emotion suggesting that cognitively demanding tasks can be used to regulate anxiety. I will present new data, using a meta-analytic approach, showing that a cognitively demanding task outside the context of emotion engages a similar amygdala deactivation as cognitive reappraisal does, a widely-used emotion regulation technique. I also will present data showing this amygdala deactivation is linearly related to the load of the cognitive demand. We are currently investigating whether systematically increasing cognitive demand during safety learning indeed leads to a stronger reorganization between large-scale networks and a reduction in anxiety-related symptoms. The notion that increasing cognitive demand may benefit treatment of anxiety-related disorders provides a mechanistic account of already existing techniques, such as Tetris, Eye movement desensitization and reprocessing (EMDR), and cognitive reappraisal.
Mental context reinstatement balances retrieval of fear versus safety memories in the human brain

Joseph Dunsmoor

The inability to override fear associations is at the core of many anxiety and stress disorders. Popular treatments, such as exposure therapy, typically involve forming new memories meant to compete with and replace fear associations. This approach, which is built on the principles of Pavlovian fear extinction, can be effective. But symptoms often return, perhaps because extinction memories are context-specific and fear suppressed in the extinction context often re-emerges in a different context. This effect is known as contextual renewal. Here, we harness multivoxel pattern analysis during functional MRI to identify context reactivation in the human brain during the retrieval of extinction memories. This technique allows us to to discover whether contextual renewal (i.e., extinction-retrieval failure) occurs due to insufficient reactivation of the extinction context at a later time. We “tagged” the mental context during extinction learning by presenting task-irrelevant pictures (from separate categories) between trials, and then used fMRI pattern classifiers in occipitotemporal cortex to quantify the (category-specific) reinstatement of the extinction context the next day. We compared results in healthy adults to people with PTSD, a disorder characterized by deficits in fear inhibition. This population exhibited weaker neural reactivation of the extinction context during threat ambiguity, which may in part explain deficits in extinction retention in anxiety and stress disorders.

EMOTIONAL MEMORIES  🕒 July 12th  🕒 16:30—18:00  🎧 A0.01

INTERDISCIPLINARY PERSPECTIVES ON JEALOUSY

Arina Pismenny & Ronald de Sousa

In philosophy, a crucial question concerns the extent to which jealousy is “natural”, rather than a consequence of socially relative ideological commitments about gender roles, or social norms governing love and relationships. The answer will have an important bearing on the core philosophical question of the value of jealousy as an avowable emotion, and its possible alternatives. But we philosophers are ill-equipped to answer that question on their own. Scientific perspectives have an important contribution to make. In this symposium we will look forward to hearing Aaron Ben-Ze'ev, who will draw our attention to philosophical issues of value, by contrasting jealousy with compersion—the joy felt in your partner’s romantic or sexual intimacy with someone else. Compersion has been of increasing interest in philosophy, but has not drawn much attention in experimental science. When and how might it replace jealousy? Arina Pismenny will discuss the semantic structure of attributions of jealousy, exploring the “formal objects” that constitute its fittingness conditions, as well as discussing the bearing on these conditions of the ideology of monogamy. Pelin Gul will report on some experimental work on the effect of jealousy on attitudes to female honour-based constraints on female sexuality. Finally, Ronnie de Sousa will comment on what we can take home from the different perspectives presented by the three main speakers.

JEALOUSY  🕒 July 12th  🕒 14:30—16:00  🎧 A1.02
“Compersion” refers to the joy felt in your partner’s romantic or sexual intimacy with someone else. Although of increasing interest in philosophy, compersion has not drawn much attention in experimental science. When and how might it replace jealousy? Which emotion is closer to romantic love (Hart & Legerstee, Jealousy, 2010)? Our emotions toward the good fortune of others can be divided into those in which our evaluation conflicts with the other’s evaluation, such as jealousy and envy, and those in which the two evaluations correlate, such as “happy-for” and admiration. At the basis of the difference is the opposing impact on self-esteem. Compersion is not a new emotion, but a kind of “happy-for.” Jealousy, which involves the fear of losing to someone something personally precious, includes a painful threat to our self-esteem that lead some men to kill their partners (Ben-Ze’ev & Goussinsky, In the Name of Love, 2008). Although jealousy is much more common than compersion, compersion is not conceptually impossible. A spouse might experience compersion in the following circumstances: low sexual intensity in the relation; differences between the spouse and the lover; the spouse is also having an affair; and the spouse is heavily occupied with nonromantic activities (Ben-Ze’ev, The Arc of Love, 2019). Compersion can be valuable in some circumstances, for some people - if such circumstances are not harmful in other ways. Making our partner happy is, after all, what underlies profound love (De Sousa, “Love, Jealousy, and Compersion,” 2018).

**Sexual jealousy motivates men’s support for female honor norms**

* Pelin Gul & Tom Kupfer

In cultures with “female honor” norms, women are expected to cultivate a reputation for purity, chastity, and loyal behaviors such as wearing modest clothes and maintaining virginity before marriage. The dominant explanation for men’s support for female honor norms is that female infidelity and promiscuity threaten men’s honor, whereby such acts reflect badly on the reputation of the husband, and damage family and community relationships. Beyond this, the literature affords little understanding of the individual-level psychological mechanisms which produce men’s support for female honor norms. We propose that male sexual jealousy motivates men’s support of female honor norms beyond feelings of threat to male honor. Experimental studies conducted with MTurk samples found that men who were manipulated to feel sexual jealousy showed stronger support for female honor norms than men did in a control condition. The effect of sexual jealousy manipulation was specific to men’s support for female honor norms, and it did not lead to stronger support for other types of honor norms (masculine, family, and integrity honor). Furthermore, results showed that sexual jealousy was a stronger predictor of men’s support for female honor norms than feelings of threat to male honor. These findings can enhance understanding of the individual-level psychological and affective mechanisms that contribute to the evolution and maintenance of ideologies that enable the control of women’s reproductive behavior.
The Rationality of Jealousy

Arina Pismenny

What makes romantic jealousy rational or fitting? To answer this question, I outline the psychological profile of jealousy as a complex emotion, contrasting it with envy, a different kind of rivalrous emotion. Unlike envy, jealousy presupposes a three-party relationship, in which the rival poses a threat to the romantic relationship between the lover and the beloved. Its formal object – the jealousy-worthy – represents this threat. Jealousy is apt when the threat is real, and inapt, when it is not. Aptness assessments of jealousy ordinarily take for granted the monogamous relationship model. Thus, monogamous norms significantly affect the aptness conditions of jealousy by determining the threshold for the criteria of 'threat' and 'rival'. I argue that in evaluating the rationality of jealousy, the presupposed monogamous norms are themselves in need of defense.

SYMPOSIUM

Tears, tears, tears: Current topics in the field of emotional crying

Janis Zickfeld

Many scholars ever since Darwin have been fascinated with the human capacity to shed emotional tears. Reflecting recent interest in the intra- and interpersonal aspects of emotional crying, the present symposium provides an interdisciplinary overview of current topics focusing on theoretical and methodological advances. The symposium starts by applying automated analyses techniques such as machine learning to the context of spontaneous tears. The first talk elucidates how such techniques could be applied to dynamic stimuli and discusses the possibilities and limitations by examining videos of crying individuals. The following two presentations focus on the interpersonal effects of emotional crying from different angles. The second talk explores the importance of a specific context in light of emotional attributions to crying individuals and discusses how individuals perceive the emotions of criers. The third talk highlights the influence of gender roles on judgments of crying and presents systematic evidence from different cultures. Focusing on intrapersonal aspects of emotional tears the fourth talk poses the question whether crying can be beneficial by investigating its effect on pain perception and mood. Results from two studies found that shedding emotional tears did not reduce pain perception or alter general mood but might target specific aspects with regard to tension. Finally, the fifth talk proposes a model of positive tears based on qualitative and quantitative cross-cultural evidence. In conjunction, the five talks shed a fascinating light on different aspects of emotional crying and contribute to the field by providing different perspectives and methodologies.
Are there any beneficial effects of crying? The case of pain perception and mood

Asmir Gračanin, Michelle C. P. Hendriks & Ad J. J. M. Vingerhoets

Previous research on the effects of crying on different aspects of well-being yielded mixed results. For example, retrospective self-report studies showed that mood improvement following crying was reported by a significantly larger percentage of participants in comparison to those reporting mood deterioration. However, diary and quasi-experimental studies showed no effects or even significant detrimental effects of crying on mood. Finally, only one quasi-experimental study showed decreases in overall negative mood, but only after a somehow longer time period following crying. Nevertheless, the observed positive effects of crying on well-being found in some of the studies deserve additional attention. To determine whether crying influences pain perception, as a potential mechanism at the basis of its putative effects on well-being, and whether it affects tension-related aspect of mood rather than negative mood in general, we conducted two laboratory studies, in which we exposed participants to pain induction procedures (electric shock in Study 1 and cold pressor in Study 2) after they had watched a sad movie. In study 1 crying was elicited in 28 out of 57 participants and in study 2 it was elicited in 49 out of 69 participants. In addition to baseline and one immediate post-crying mood evaluation, in study 2 we repeated the pain induction procedure and mood measurements two more times. Crying failed to predict changes on all measures of pain perception. It also did not influence overall mood improvement over longer time period. However, crying specifically facilitated the improvement of the tension-related aspects of mood.

A model of positive tears

Janis Zickfeld & Beate Seibt

Although several scholars acknowledge the existence of tears of joy there is little systematic theoretical or empirical evidence on how positive tears are experienced, what elicits them, what actions or impulses they motivate in the crier, how they differ from tears of sadness or distress and whether there are different types. We investigated these issues and drafted a taxonomic model of positive tears. Drawing on more than one thousand reports of positive tears and including more than 2000 participants from 9 diverse countries and 7 languages the studies employed a strong mixture of quantitative and qualitative techniques. The final results showed evidence of the occurrence of positive tears and found four qualitatively different types and profiles that we termed achievement, beauty, affection and amusement tears. Achievement tears are often shed in contexts of extraordinary performance or when someone overcomes an obstacle and often include feelings of pride. Beauty tears occur commonly in situations of overwhelming elegancy including nature, music or visual arts and feature feelings of awe or experiencing chills. Affectionate tears are often experienced in situations including unexpected kindness or exceptional love such as wedding ceremonies or reunions and often feature feelings of warmth, increased communality and feeling touched or compassionate. Finally, amusement tears are shed when something especially funny occurs and include feelings of amusement or lightness and the inclination to laugh or giggle. We also investigated inter-individual differences with regard to these categories and discuss possibilities and implications of our taxonomy of positive tears.

TEARS  🌟 July 12th  ⌚ 09:00—10:30  🔄 A1.02
Crying in context: The interaction between weeping and situational cues in attributions of emotion

Marc Baker

Context plays a crucial role in understanding facial expressions. For instance, changes in body language of the expresser or the surrounding environment as well as our own beliefs, experiences, and expectations modify what emotion we attribute to a facial expression. Using context to manipulate an audience's perception of a targets facial expression has been called the 'Kuleshov effect'. The effect is robust and has been consistently replicated. What is less well understood is how the Kuleshov effect interacts with other strong emotional signals such as tears. Tears are found to increase attributions of sadness regardless of the facial expression being displayed. This is called the ‘tearing effect’ and is also a hugely robust finding. In our experiment, judges (N= 150) rated the emotions of people crying whilst watching sad videos. Emotional context was manipulated by showing the judge a clip from a film associated with either joy, anger, fear or sadness prior to seeing the criers video. Preliminary results will be discussed showing how context affects how people perceive the emotions of criers and how tears may signal emotional intensity as opposed to strictly sadness.

Endorsement of Gender Roles Across Cultures and their Influence on Evaluations of Crying

Leah Sharman, Genevieve Dingle, Ad Vingerhoets, Harrison Manley, Marc Baker, Asmir Gračanin, Agneta Fischer, Kunalan Manokora, Igor Kardum & Eric Vanman

This study is an attempt to further understand how conformity to gender roles, rather than physical sex alone, and beliefs about crying may interact to affect evaluations of crying. This research uses a cross-cultural survey design across 5 countries (Australia, Croatia, Netherlands, Thailand, and the UK), hypothesising a mediational role of crying beliefs between gender roles and both crying intensity and mood following crying. Results will be analysed on a sample of over 750 people with gender balanced within countries. All participants, aged 18-40, were asked questions about their last crying experience related to a negative event (e.g., sadness, anger/frustration) and whether they received help from others, their general crying behaviours and beliefs, and their gender role prescription. Preliminary results from two countries suggest that more feminine gender endorsement is associated with stronger beliefs that crying is helpful, and greater likelihood of crying more intensely when crying because of a negative experience. Beliefs that crying is helpful for emotional recovery were not only related to more intense crying, but were also associated with mood improvement following crying. Early gender differences suggest that men reported crying with significantly less intensity and believing that crying was less helpful overall compared to women. However, women felt that crying was also the most unhelpful, with beliefs that crying was more unhelpful in both social and individual situations compared to men. Final results will be discussed including mediation models and the impact of social presence in crying evaluations.
Crying and the machine: What automatic analyses may (not) reveal about spontaneous emotional tears

*Dennis Küster, Marc Baker & Tanja Schultz*

Empirical crying research is often based on either vignettes or on still images featuring posed facial expressions. Unfortunately, however, we still know rather little about dynamic spontaneous crying. In addition, vignettes and static images are vulnerable to design and selection biases. Automatic analyses might shed new light on spontaneous crying. Using a combination of state of art commercial and open-source facial image analyses tools (AFFDEX, FACET, OpenFace), we re-examined dynamic spontaneous responses of a recent dataset of 35 female ‘fluent criers’ to a self-chosen sad movie. We extracted per-frame evidence for more than 20 Action Units, head pose, eye gaze, and blinking rates during and prior to crying and sad moments, as well as during a neutral baseline period. Preliminary results suggest the presence of facial responses typically associated with sadness, but also that of other expressions, including smiling both during and prior to tearful crying. Further changes in eye blink rates, head pose, and gaze raise the possibility that machine learning approaches might be able to detect both onset and attempted regulation of tears, without the need to examine complex dynamic changes in skin glossiness changes observed during tearful crying. We discuss how automatic facial image analyses may help to generate new hypotheses about human spontaneous crying, and how it could help inform systematic generation of suitable research materials for perception studies. Finally, using tears as an example, we aim for a critical discussion about the potential, and potential pitfalls of using automatic analyses to classify human emotional states.

**TEARS**  🌃 July 12th  ☀️ 09:00—10:30  ⬆️ A1.02

**SYMPOSIUM**

**Novel methodological approaches to the investigation of emotional mimicry from a functional perspective.**

Michal Olszanowski, Monika Wróbel & Ursula Hess

Emotional mimicry is a well-recognized phenomenon in psychology. Hess and Fischer (2016) provided a review of the main findings of the last decades in this area, in which they proposed that the function of emotional mimicry is to facilitate the understanding of others’ emotions. Further, and perhaps even more importantly, emotional mimicry serves an affiliative function by providing subtle signs of mutual understanding and empathy. These propositions provide a useful starting point for further research aimed at improving our understanding of the impact of emotions on social interactions. The aim of the symposium is to present the latest findings in this field by bringing together a variety of novel methodological approaches to the investigation of mimicry from a functional perspective. The first presentation investigates whether mimicry is related to personality traits and predictive of interaction quality. The second talk provides a controlled experimental test of the effects of being mimicked, through the use of virtual humans. The third presentation investigates how different forms of mimicry are related to empathy and trust. The fourth talk explores the role of the opioid system in facial mimicry. The last talk provides empirical evidence for the role of facial mimicry in emotional
Mimicking and sharing emotions: A re-examination of the link between facial mimicry and emotional contagion

Michał Olszanowski, Monika Wróbel & Ursula Hess

Facial mimicry has long been postulated as one of the main mechanisms leading to emotional contagion (i.e., the transfer of emotions between people). A closer look at the empirical evidence, however, reveals that although these two phenomena often co-occur, the changes in emotional expressions may not necessarily be causally linked to the changes in subjective emotional experience. Here, we directly investigate this link, by testing a model in which facial activity serves as a mediator between the observed emotional displays and subsequently felt emotions (i.e., emotional contagion). Participants watched videos of different senders displaying happiness, anger, or sadness, while their facial activity was recorded. After each video, participants rated their emotions and assessed the senders’ likeability and competence. Results demonstrated that participants mimicked and felt emotions displayed by the senders. Moreover, their facial activity partially explained the link between the senders’ emotional displays and self-reported emotions, thereby supporting the notion that facial mimicry may be a mechanism involved in emotional contagion.

Virtual mimicry: The effect of mimicry by a virtual human on social behavior

Job van der Schalk, Rens Hoegen, Gale Lucas & Jon Gratch

Mimicry, the automatic imitation of non-verbal behavior, is associated with pro-social behavior like empathy and affiliation (Chartrand & Bargh, 1999; Hatfield, Cacioppo & Rapson, 1994). However, studies of the effects of mimicry often rely on its measurement, which doesn’t establish the causal effect of being mimicked, or on the use of confederates, which may introduce noise or experimenter effects. The current study investigated the effects of being mimicked in a controlled way, through the use of virtual humans (VH). We hypothesized that VH facial mimicry would increase rapport and pro-social behavior. Participants played a 10-round iterated prisoner’s dilemma with a VH, while their facial behavior was tracked with automatic facial recognition software. Brow lowering (AU4) and smiling (AU12) was live animated on the VH in one of four conditions: the facial behavior of the VH either matched the facial behavior of the participant (mimicry condition) or showed the opposite facial behavior (counter-mimicry condition); in two control conditions (mimicry and counter-mimicry) the agent responded to a previous opponent (yoked control). In line with our hypothesis, participants showed more positive facial behavior to a mimicking VH. In addition, rapport was positively associated with the number of cooperative choices in the prisoner’s dilemma, but only when the VH mimicked the participant. These findings provide controlled experimental evidence of the positive effects of mimicry on social behavior and suggest that mimicry by a VH may evoke more ‘natural’ social behavior in human-computer interactions.
Facial mimicry, i.e. the imitation of a perceived facial expression, is a well-documented phenomenon. The amplitude of facial mimicry is modulated by many factors, including the rewarding nature of social interactions. Smiling faces in particular are considered social rewards, and their mimicry may itself be rewarding. Recently, interest has emerged in the effects of various neuromodulators on facial mimicry, including the opioidergic and dopaminergic systems – also underlying motivational and hedonic aspects of reward. In an attempt to better understand social reward processing in general, and facial mimicry in particular, I’ll present results of a pharmacological study in which participants received, in a placebo-controlled between-subjects design, 50 mg of naltrexone (an opioid receptor antagonist), or 400 mg of amisulpride (a dopamine D2/3 receptor antagonist). Four hours after drug administration, facial mimicry of dynamic happy and angry facial expressions was measured with facial electromyography of the corrugator and zygomaticus muscles. In line with previous findings, a reduction of facial mimicry was found in the naltrexone group. This suggests that the opioid system may mediate or modulate facial mimicry, possibly by conveying reward value to perceived emotional faces.

From Mimicry to Trust: A Tinberian Approach

Mariska Kret

Many daily decisions are made through quick evaluations of another’s trustworthiness, especially when they involve strangers. Individuals rely on a partner’s tractable characteristics, including expressions of emotion. These are readily mimicked even down to the physiological level. I will here present my recent research findings on mimicry in the context of a newly started research project where I investigate which forms of mimicry are empathic and inform decisions of trust and distrust. The mimicry-empathy linkage has come under discussion with the publication of counter-examples in biology and failures of replication in psychology, making the question of what mimicry entails even more important. The key role emotional expressions play in our daily life positions this revived debate around mimicry at the forefront of emotion science. Scientific advancement in this field, however, demands a new theoretical and methodological approach. Therefore, I place mimicry within the Tinberian framework. Fundamentally, this means that I incorporate biological and psychological approaches to the study of mimicry and during dyadic interactions, investigate different forms of mimicry simultaneously, e.g. facial mimicry, pupil mimicry, and more, and their 1) Function: what they are good for. Using economic games, I study which mimicry forms are related to empathy and inform social decisions; 2) Mechanism: how they operate on the neurophysiological level; 3) Development: how mimicry develops over the lifespan and which mimicry forms are phylogenetically continuous and shared with the great apes, our
Facial mimicry as a trait

Ursula Hess, Heidi Mauersberger & Konstantinos Kafetsios

Everyday social interactions almost always include some level of emotional exchange - be it only the friendly smile of a cashier or the disapproving frown of a security guard at the airport. In human interactions such expressions are often mirrored – a tendency referred to as emotional mimicry. Emotional mimicry is usually considered situation driven emotional behavior. In this presentation we will advance the notion that the tendency to show emotional mimicry in the laboratory is meaningfully associated with personality traits and predictive of interaction quality in a seven-day diary task in which social interactions with friends, partners and acquaintances were recorded. Complete data were obtained from 108 participants (82 women). Emotional mimicry to angry, happy, sad, and disgusted faces shown in a social setting was assessed using facial EMG at the Corrugator Superﬁlii, Zygomaticus Major, Orbicularis Oculi and Levator Labii Aleaque Nasii. The Big five, an assessment of emotion regulation, self-esteem as well as positive and negative affectivity were measured. Personality variables predicted the tendency to mimic speciﬁc emotions in the laboratory which in turn predicted interaction quality reported in the diary study.
University, Australia) will discuss uses of music in the context of cognitive behavioural therapy, whereby using musical jingles during fear extinction learning led to an enhanced response to anxiety treatment.

Using melody / jingles to enhance memory of therapeutic strategies in children during anxiety treatment

A. Waters, M. Zimmer-Gembeck, M. Craske, Daniel Pine, Brendan Bradley & Karin Mogg

Introduction/Background: Saying things out loud and expressing them as melodies/jingles enhances new learning and memory consolidation. The present study incorporated the expression of key therapeutic strategies as jingles during cognitive control training to enhance engagement and clinical outcomes for clinically anxious children. Methods: In this study, 59 anxious children between 7-12 years of age were randomly assigned to cognitive control training or a waitlist control condition. Children in the active treatment condition completed 12 sessions of positive search training involving melody/jingles to enhance learning and memory of the positive search strategies. Children in the waitlist control condition were assessed before and after the active intervention phase. Results: Significant reductions in clinician and parent report of children's anxiety symptoms were observed from pre- to post-intervention in the active condition compared to the waitlist condition. More importantly, greater use of melody/jingles during treatment significantly predicted better treatment outcomes at post-treatment and follow-up. Conclusion: These results encouraged further studies of melody and jingles to enhance memory of therapeutic strategies and additional research since these initial findings will be presented and avenues for future research will be discussed.

Influence of Alexithymia on Emotion Differentiation and Psychophysiological Responses to Music

Joel Larwood, Genevieve Dingle & Eric Vanman

There are two key theoretical perspectives of emotional experience. Basic emotion theory links emotional experience to psychophysiology. Whereas constructivist theory posits emotions to be a product of predictions, previous knowledge, and expectations. According to basic emotion theory, an emotion will be easier to differentiate when there a more pronounced bodily reaction is present. However, from a constructivist perspective, the ability to differentiate emotional experiences is contingent on well-formed emotion concepts—not psychophysiological reactivity. Alexithymia is a personality trait characterised by a lack of knowledge about emotional experiences and poor differentiation of emotions, particularly negative ones. However, studies on psychophysiological responses in alexithymia have been consistently underpowered and returned inconsistent results with no study linking physiology to differentiation. This will be explored in the current study where participants listen to music that varies (high or low) in valence and arousal. Participants are 120 university students aged 18 to 25 years. Skin responses, zygomaticus major, and corrugator supercilii are continuously measured during music listening, along
with self-report of experienced emotions at the end of each song. Consistent with constructivist theory, it is predicted that psychophysiology will cluster according to valence and arousal regardless of alexithymia. Further, psychophysiology will not predict emotion differentiation but emotion differentiation will reduce as alexithymia increases. Results and conclusions will be included upon completion of data collection.

Emotion regulation through music listening in adolescence: a mobile experience sampling study

William M Randall, Margarida Baltazar & Suvi Saarikallio

Music is an important part of everyday life, and one of the most prominent motivations for listening to music is for the self-regulation of emotional states. However, this regulation is not always beneficial, and the use of maladaptive strategies is apparent in the development of many forms of psychopathology, including mood and personality disorders. This is particularly true for adolescents, as failure to develop adaptive regulation strategies during this critical period can lead to social and mental problems into young adulthood. Music listening has unique potential as an age-appropriate tool to support emotional health in adolescents. The aim of this study was to provide a comprehensive understanding of how adolescents use music to regulate emotional states, and identify the individual and contextual variables that influence this regulation. All data were collected through the mobile app MuPsych, which was designed to collect ecologically-valid and real-time data during music listening experiences. Participants were Finnish middle-school students (ages 13-16), who responded to questions as they listened to music on their mobile phone. These questions assessed change in emotion (valence, arousal, and intensity of a categorical state) over a five-minute listening period, along with contextual variables and regulation strategies. The app also assessed individual variables through questionnaires on personality and mental health. Data collection is ongoing, with final results to be presented at the symposium. Results indicate several clear patterns of regulation for different emotion states, predicted by sets of contextual and individual variables.

Trait empathy contributes to the intensity of music-induced emotions: Evidence from self-reports and psychophysiology

Jonna K. Vuoskoski & Tuomas Eerola

It has been postulated that empathy and emotional contagion might be some of the fundamental mechanisms through which music induces emotional responses in listeners. Previous studies have reported correlations between questionnaire measures of trait empathy and self-reported intensity of music-induced emotion (particularly in response to sad and tender music), but it is not yet known whether this association only exists at the level of self-report. Thus, the aim of this study was to investigate the relationship between trait empathy and psychophysiological indices of music-induced emotion. Fifty-four participants heard 10 1-minute music excerpts representing five different emotions
(sad, happy, scary, tender, and neutral). For each excerpt, participants rated their liking and the overall intensity of their emotional response, and described their felt emotion using 7 rating scales (happy, tender, peaceful, moved, anxious, and energetic). In addition, participants’ electrodermal activity and heart rate variability (HRV) were measured. Trait empathy was measured using the Interpersonal Reactivity Index (Davis, 1980). Trait empathy correlated significantly with the mean ratings of overall intensity of felt emotion (averaged across all excerpts; $r = .29$). Trait empathy also correlated with phasic skin conductance activity in response to sad ($r = .28$) and tender ($r = .33$) excerpts, and with high-frequency HRV in response to happy excerpts ($r = .36$; all $p < .05$). These results corroborate previous findings that have associated trait empathy with the self-reported intensity of music-induced emotions, and provide novel evidence of a similar pattern also on the level of psychophysiology.

**SYMPOSIUM**

**Emotion and effort**

Henk van Steenbergen & Guido Gendolla

This symposium showcases recent work from five different research groups on the relationship between emotion and effort. The speakers have different backgrounds ranging from motivation science and social psychology to clinical and cognitive neuroscience. In the first talk, Gendolla shows how emotions influence cardiac effort. He reports on new studies that reveal important boundary conditions of these effects. Custers then presents the effect of implementation intentions on the affective transfer from goals to cues. This work shows that the positive affect evoked by a stimulus promotes the recruitment of effort upon cue perception, strengthening implementation-intention effects. In the third talk, van Steenbergen introduces a new framework that explains how positive affect can be both beneficial and detrimental to cognitive effort. Findings provide initial support for a context-specific effect of mood on behavioral indices of effort. Grahek goes a level deeper, investigating the computational mechanisms underlying the influence of emotion on effort. The new computation model developed can replicate key behavioral findings and accounts for the diminished effort typically observed in major depression and other mood disorders. In the final talk, Apps provides evidence for pro-social apathy. People are shown to be less willing to choose to exert higher levels of effort when someone else will benefit. Neuroimaging data reveal the role of distinct frontal brain regions that underlie this effect. Altogether this symposium brings together research from different disciplines and provides a state-of-the-art overview of the influence of emotion on effort measured at the behavioral, physiological, neural and social level.
Implicit Affect and Cognitive Effort: Boundary Conditions

Guido H.E. Gendolla & David Framorando

Research on the Implicit-Affect-Primes-Effort model (Gendolla, 2012) has revealed replicated evidence for implicitly processed affective stimuli’s systematic impact on effort-related cardiovascular responses (especially cardiac pre-ejection period) in cognitive tasks. In easy tasks, priming sadness or fear results in stronger responses than priming happiness or anger. In difficult tasks, these affect prime impacts are inverted. Recent research focused on the boundary conditions of these effort automaticity effects. One set of studies tested the moderating effects of prime visibility and prime warning. As expected, affect primes only influenced effort-related cardiac responses when they were implicitly processed. When the primes were clearly visible or when participants were warned about their effect, they lost their impact. Other research focused on the role of the general task context. Again, affect primes systematically influenced effort, but only when they were processed in an achievement context that called for effort and in which implicit affect could inform about task demand. But when the affect primes appeared in a “just watch” context, they had no impact on cardiovascular responses. Taken together, these findings identify important boundary conditions of implicit affect’s impact on cognitive effort. Accordingly, affect primes influence effort-related cardiovascular responses only in an achievement context and when people are unaware of the primes' content and effects.

Prosocial apathy: When helping others is just too much effort

Matthew Apps

Prosocial acts — those that are costly to ourselves but benefit others — are a central component of human coexistence. While the influence of financial and moral costs on prosocial behaviours are relatively well understood, everyday prosocial acts do not typically come at such costs. Instead, they require the motivation to exert effort. Using computational modeling of a novel effort-based decision-making task we are able to probe people’s willingness to choose to exert effort - and the subsequent force exerted into actions - that benefit ourselves or another person (Lockwood et al., 2017, Nat. Human Behaviour). I will present research showing that people are prosocially apathetic. People are less willing to choose to exert higher levels of effort when someone else will benefit. Moreover, even when people do choose to perform effortful prosocial acts, they exhibit superficiality, exerting less force into the actions that benefit others than those that benefit themselves. Using fMRI I show that this may arise because distinct regions of the frontal cortex are engaged when motivating self-benefitting or prosocial actions. Moreover, I show that the willingness to put in effort for others varies with levels of empathy, highlighting how emotions may drive our willingness to put in effort and be prosocial.
Implementation intentions promote affective transfer from goals to cues

Ruud Custers & Thomas Webb

Implementation intentions facilitate goal attainment by linking goal-directed responses to cues in the environment. Although this effect is generally explained in terms of a cognitive mechanism by which the cue automatically activates the goal-directed response, the current line of studies investigates possible affective mechanisms that contribute to this effect. In three experiments, the implicit evaluation of cues linked to a goal (earning a chocolate bar) was measured using the Affect Misattribution Procedure (AMP). It was demonstrated that cues that were instrumental in attaining the goal were more positively evaluated than control cues. Moreover, the evaluation of the cue was positively correlated with that of the associated goal. Alternative explanations within the paradigm, such as fluency effects due to cue exposure are ruled out. Together, the results suggest that during the formation of implementation intentions, goal valence is transferred to the cue. Based on earlier work demonstrating that positive affective cues during goal activation motivate goal pursuit, it is speculated that the positive affect evoked by the stimulus may promote the recruitment of effort upon cue perception, adding to the strength of implementation intention effects.

The Role of Affect in Cognitive Control: A Computational Approach and its Relevance for Depression

Ivan Grahek, Sebastian Musslick & Amitai Shenhav

Previous work has shown that performance on cognitive control tasks is influenced by momentary affect and by motivational state. Accordingly, emotion dysregulation and/or motivational impairments – as they occur in major depression and other mood disorders – can result in alterations in cognitive performance and/or in diminished cognitive effort investment more generally. I will present recent work that seeks to provide a computational account for cognitive control allocation in healthy and depressed individuals, based on the Expected Value of Control theory. The theory proposes that the allocation of control can be described as a decision-making processes in which the benefits of exerting control are weighted against its costs. We simulate an agent that employs this cost-benefit analysis to dynamically adjust control allocation over the course of a cognitive control task. We use these simulations to replicate key behavioral findings in the cognitive control literature (e.g., conflict adaptation, switch costs, cognitive effort discounting) and to demonstrate potential mechanisms by which these effects would be altered by experimental manipulations of integral or incidental affect. We further identify potential mechanisms underlying impairments in cognitive effort allocation observed in depression and related disorders. I will discuss these findings in a broader framework that connects motivational and cognitive impairments in depression. Within this framework, depression-related cognitive deficits are caused by the reduced value of exerting control, instead of an inability to do so.
The Power and Pitfalls of Positive Affect: Context-Dependent Effects of Mood on Effort

Henk van Steenbergen

Feeling good is often considered to be beneficial for cognitive functioning. However, research on the effects of hedonic states on goal-directed behavior has provided contradictory findings, suggesting that positive affect can both enhance and impair cognitive control. In this talk I introduce a new framework to resolve this paradox. Integrating the Expected Value of Control theory with core insights from motivation science, this framework predicts that positive mood will increase the motivation to exert effort in cognitive tasks when the potential benefit of control is made salient, whereas positive mood will decrease effort when task difficulty is made salient. I present evidence from two recent studies that have tested this prediction using a two-by-two design manipulating i) participants’ hedonic tone and ii) the perceived benefit versus difficulty of doing an effortful task. In line with predictions, results show that the willingness to engage in the effortful task is influenced by mood and task context, such that positive mood is only associated with more effort in contexts in which the perceived benefits of effort are salient. These findings provide the first evidence that the effect of mood on cognitive effort is context-dependent, highlighting the flexible nature of the relationship between affect and cognitive control.

EMOTION AND EFFORT  📆 July 12th  🕒 14:30—16:00  ✨ A1.03

SYMPOSIUM

Interdisciplinary Perspective on Compassion and the effects of Compassion Training

Olga Klimecki

In this interdisciplinary symposium we will explore compassion and the effects of compassion training from the perspective of philosophy, neuroscience, and psychology. The symposium will start with Prof. Julien Deonna who will present a philosophical perspective on compassion, discussing in how far it is an appropriate response to others’ suffering. Then, Dr. Sofie Valk will show how a 3-month meditation-based training in socio-affective skills (compassion) changes brain structures important for affective processing. Dr. Marie Bayot will then show what effects mindfulness and compassion training have on parenting. Finally, Patricia Cernadas will present results on the effects of compassion versus reappraisal training on interpersonal conflicts. The symposium will end with a discussion.

COMPASSION  📆 July 12th  🕒 16:30—18:00  ✨ A1.03

Changing negative attitudes with compassion training and reappraisal training in order to promote conflict resolution

* Patricia Cernadas Curotto, David Sander, Eran Halperin & Olga Klimecki

In tense situations, emotions emerge and impact conflict-related issues. Previous studies have suggested that cognitive reappraisal, an emotion regulation strategy, has beneficial impact on conflict resolution.
Here we aimed to test if training the feeling of compassion also promotes conflict resolution. More precisely, our goal was to investigate whether a compassion training and a cognitive reappraisal training can decrease negative attitudes and emotions (e.g., schadenfreude) felt towards a difficult person. We expected that compassion training would increase prosocial behaviors and would reduce negative behaviors such as punishment. To test these hypotheses, our participants were randomly assigned to one of the three conditions: compassion training, reappraisal training or a control training. The three interventions were parallel in structure, starting with an information session of 30 min-1h and two courses of 2h30 given by a teacher, followed by 20 min guided audio trainings for a daily practice at home. We measured negative attitudes and emotions to misfortune scenarios involving a difficult person at pre- and post-training tests and punishment behavior towards a third party at post-training. The data will be analyzed and the results will be presented at the meeting.

**Where does the brain change when training compassion?**

Sofie Valk

The ReSource study is a 9-month-long mental training program targeting socio-affective (compassion), socio-cognitive (Theory of Mind), and cognitive (attention) skills in three separate 3-month training modules in a large sample of adults. Using MRI-based analyses of cortical structure, we investigated changes in cortical morphology specific to each training module. We observed specific changes in brain structure following each module as a function of training content. Our findings highlight the relationship between module-specific improvement in behavioral skills (attention, compassion, and Theory of Mind), where we found that improvements in each of these skills occurred primarily within regions that also showed task-based activation. These findings highlight that training compassion results in specific changes in brain structure in networks associated with affective processing.

**Is compassion in response to suffering always appropriate?**

Julien Deonna

It is customary for philosophers to think of emotions as responding to (real or apparent) positive or negative value properties. Appropriate fear is fear that responds to danger, appropriate anger is anger that responds to offense, appropriate amusement to fun, appropriate shame to degradation, appropriate sadness to loss, and so on. The value property to which a type of emotion unvaryingly correspond –in contrast to the varying particular objects an emotion can have– is called the formal object of the emotion and emotions are appropriate when they respond to the presence of their formal objects. But what, one may ask, is the formal object of compassion? The obvious candidate, suffering, raises immediate worries. Why think that suffering is a value property at all? Isn't suffering also the object of the sadist’s joy? In this paper, I try to defend against suggestions to the contrary that suffering is a value and that it is the formal object of compassion. One consequence of this is that it is always appropriate to respond to suffering with
Increasing compassion and empathy: Why and how?

Marie Bayot, Rebecca Shankland, Isabelle Roskam & Moïra Mikolajczak

Adaptive empathic responding – which is composed of (1) an affective response, (2) the cognitive ability to mentalize another person’s emotional state, (3) an emotion regulation process, and (4) a pro-social behavior – is strongly linked with harmonious and positive relationships. Empathic parenting is key to the child’s well-being and psychosocial development, but may also be impeded by parental stress and parental burnout. Among evidence-based interventions aiming at increasing empathic responding, mindfulness approaches are of particular interest. Indeed, researchers and Buddhist scholars argue that interpersonal changes such as benevolence and empathy should naturally emerge from a diligent practice of non-judgmental present moment awareness, even more so if underlying Buddhist teachings (e.g., compassion, interdependence) are made explicit. In the specific case of mindful parenting, empathy and compassion toward oneself as a parent and toward one’s child are central. Our research examined the impact of mindfulness and compassion-based interventions on intrapersonal and interpersonal functioning outcomes in a community sample as well as in a sample of burned out parents. Results will be presented and discussed in light of type of sample (clinical vs non-clinical), program structure and person and culture-fit.

Production and social functions of human laughter

Magdalena Rychlowska, William Curran & Gary McKeown

Laughter constitutes a multimodal pattern of affective vocalisations, facial expressions, and body movements dating back evolutionarily over 10 million years. This complex and dynamic behaviour occurs in all types of social circumstances and can convey a variety of communicative messages. The meaning and function of laughter are only recently beginning to be understood. An investigation of different kinds of laughter, their distinctiveness, and the social tasks they serve can shed light on the mechanisms underlying the processing of this multifaceted behaviour. This symposium brings together scientists studying laughter in order to discuss novel research findings and stimulate debate about this emotional expression. The first presenter will consider the vocalisation mechanisms underlying the production of spontaneous and conversational laughter. Are there different types of genuine laughter? To what extent do these types convey information regarding a sender’s feelings and motivations? This
question will be discussed in the second talk, focusing on specificity versus ambiguity of laughter. From an evolutionary perspective, the expression of laughter can be viewed as an important tool for promoting and signalling social affiliation. The subject of the third presentation is colothing, which is the simultaneous production of laughter between individuals in groups. The fourth and final speaker will consider further the social functions of laughter and its potential to serve the tasks of rewarding others, maintaining social relationships, and signalling superiority. We will discuss the relevance of these sometimes conflicting approaches and results to human behaviours beyond laughter, such as gossip, empathy, and smiles.

The acoustic distinctiveness of natural laughter during rewarding, affiliative, and dominant contexts

Adrienne Wood

Laughter accompanies a variety of social contexts and internal states. It also takes many acoustic forms. I suggest this diversity occurs because laughter can serve multiple social functions: 1) rewarding the behavior of others; 2) easing of social tension and signaling of affiliation; and 3) enforcing social norms, negotiating status, and correcting undesirable behavior in others by conveying dominance. I propose that people modify physical properties of their laughter in the service of the three social tasks, and that the acoustic modulations follow principles common to human and non-human vocal signaling. Recent work identified acoustic patterns that convey reward, affiliation, and dominance using perceiver judgments of actor-generated laugh samples. Here I present new findings from a naturalistic laughter production study in which pairs of same-gender participants (complete audio recordings, N= 141) freely discussed humorous videos they identified as eliciting rewarding, affiliative, and dominant responses. A total of 4,606 laughter samples were extracted from the conversations. Several acoustic properties differed systematically across the three conversation contexts, some of which converged with the prior perceiver-based study. I discuss the distinct insights perceiver- and producer-based paradigms reveal and contextualize the acoustic profiles of laughter within the broader human and non-human signaling literature.

Form and function in human coloughter

Greg Bryant

Human laughter is a universal nonverbal affective vocalization homologous to play vocalizations in the great apes, and other mammalian species. Coloughter is the simultaneous production of laughter in groups and its occurrence is closely linked to social affiliation and cooperative intent between vocalizers. Here I will present evidence for a group signaling theory of coloughter that extends the functions of laughter beyond the immediate interactive context to intergroup communication. Specific acoustic and psychological features of human laughter including alerting components, overall loudness, conspicuousness, and high contagion suggest a group chorusing function. I will present data from three
lines of research, including a large-scale cross-cultural study of colaughter perception, a study examining the recognition of affiliation in colaughter and cospeech, and developmental work investigating colaughter perception in preverbal infants. Together, these results provide preliminary evidence for an intergroup signaling function of colaughter and help explain some of laughter's more puzzling features from an evolutionary perspective.

The neurobiology of laughter perception and production

Sophie Scott

Laughter is a non verbal expression of emotion which has a range of complex, nuanced uses in human interactions - from social bonding and play to communication and emotion regulation. In this talk I will discuss the neural systems recruited during the perception and production of laughter. Production is hard to investigate but we can distinguish between networks recruited for spontaneous vs voluntary motor control, and I will show how these can be important in the production of laughter. The perception of laughter involves the dorsolateral temporal lobes, sensory-motor cortex and medial prefrontal fields. This perception networks can be differentially modulated: spontaneous and communicative laughter recruit these fields somewhat differently, for example. There are also important individual differences - greater sensory-motor network recruitment is seen in participants who are better at distinguishing spontaneous vs communicative laughter in offline tests. Teenage boys at risk of psychopathy, in contrast, recruit these sensors-motor networks significantly less. I will conclude with some suggestions about other factors that may modulate these neural systems, including age and context.

On the ambiguity and specificity of laughter

Magdalena Rychlowska, Gary McKeown, Ian Sneddon & William Curran

The central question of this work is whether laughter conveys specific feelings or is ambiguous and used to enhance or accentuate emotions in others. We test this question using a new methodological approach allowing non-intrusive recording of spontaneous laughter in social settings. We used the technique in two studies (N = 101; N = 404), to record laughter in groups talking about pleasurable experiences, and to alter the recorded sequences. Specifically, the original laughs were replaced by other laughs taken from different points in the same conversation. The intensities of the substituted laughs were matched to or different from the original intensities. Participants watched the unaltered and the modified videos and judged the genuineness of each interaction. Interchanging laughter did not decrease the perceived genuineness as long as the laughter intensity remained the same. In other words, the same laughs could be flexibly used across contexts. This finding suggests that laughter does not convey information about the sender's state but rather enhances emotions induced by the context. Our more recent studies extend these findings to laughs produced in different situations. We recorded participants (N = 61) in contexts engineered to induce amusement, embarrassment, and schadenfreude. Their laughs are used as stimuli in
a series of studies exploring the informative value of laughter as a signal. The findings will reveal how much of the meaning of laughter depends on the surrounding context, facial and bodily expressions, and acoustics, thus providing important insights into the flexibility of laughter as a communication tool.

**LAUGHTER**  📅 July 12th  🕒 16:30—18:00  🗓 A1.02

**SYMPOSIUM**

**Emotions as sources of social information**

Ursula Hess & Shlomo Hareli

In recent years, a growing body of research regarding the information that observers deduce from others’ emotion expressions has accumulated. Much of this research has been conducted within a very limited social context, typically focusing only on one or two trait inferences. In four talks, the symposium attempts to move beyond this research in several respects. In the first talk, Brian Parkinson shifts the focus from the perceiver to the expresser, attempting to map some of the motivations underling the communication of emotions to others. In addition, he presents data depicting how emotions are used in communication during real-time interactions. Konstantinos Kafetsios demonstrates how cultural norms shape emotional responses to different events. The talk stresses how emotions signal the expressers’ culturally and personally aligned response to the situation. Ursula Hess discusses the bi-directional link between expressions of emotions and context exemplifying how social perceivers use both as an important source of information for their inferences. Finally, Shlomo Hareli presents some conclusions about the characteristics of inferences drawn from emotions. In this context the discussion focuses on the informativeness of emotions, when such information may be ignored by its observers and what aspects of the expression may inform observers’ inferences.

**SOCIAL INFORMATION**  📅 July 12th  🕒 14:30—16:00  🗓 A2.07

**Why that face? The influence of another person’s emotion expressions on situation perception**

Shlomo Hareli &  ⭐ Ursula Hess

Research on the relationship between context and facial expressions generally assumes a unidirectional effect of context on expressions. However, according to the model of the meaning of emotion expressions in context (MEEC) the effect should be bidirectional. Specifically, according to appraisal theories of emotion, facial expressions result from the appraisal of events according to the values, motives and resources of the emoter. Hence, a third party who is aware of the facial reaction of a person who experiences an event, can reverse engineer this process to deduce information on both the emoter and the situation. These social appraisals should then influence the observer’s own appraisal of the same situation. Two studies will be presented in which an onlooker’s facial expression was shown alone, or in combination with a scene. Participants appraised the scene either by itself or while also seeing the onlooker’s expression. In both studies, scene appraisal was systematically influenced by the onlooker’s expression. These results confirm the MEEC and show that the meaning of scenes is malleable and
affected by the way that people are seen to react to them.

What's beyond appraisals in inferences drawn from perceived emotions?

Shimon Elkabetz, Ursula Hess & Shlomo Hareli

Perceivers use the emotion expressions of others to draw inferences about the expressers and/or the situation. Much of the information drawn from these expressions is linked to the appraisal pattern typical for the emotion expressed. That is, the meaning of the typical situation that elicits a specific emotion. In the present talk, we move beyond this basic idea. Specifically, we will discuss and present evidence for the following characteristics of inferences drawn from emotions: (1) Different types of emotions differ in how informative they are. (2) Even if an observer grasps the meaning conveyed by a specific emotion, they may not always act on this understanding, because the risk of missing potentially threatening information is too high. (3) Certain inferences drawn from expression of emotions are based on a single appraisal associated with the emotion rather than the full pattern of appraisals. (4) Other characteristics of the expression beyond appraisals can inform inferences drawn from the emotion. We will back these ideas by relevant findings from our laboratories.

Emotions as strategies for social influence

Brian Parkinson

A person's emotions provide information about their evaluative orientation to objects, events and other people. Social appraisal research mainly focuses on perceivers' responses to this information, and pays less attention to factors and processes that lead to the presentation of emotional information in the first place, including the communicator's active attempts to formulate the relational meaning of the current transaction and to influence the perceiver's complementary or conflicting orientation. In the present paper, I review studies that have investigated the interpersonal effects of emotion in real-time interactions between people. In these settings, emotional information may consolidate from a prior interpersonal process where relational meanings are negotiated and calibrated, or it may be presented strategically for the specific purpose of influencing another person's appraisal of what is happening. In either case, the delivery of emotion communication is likely to be dynamically responsive to the interpersonal feedback that it solicits. When both parties to an exchange are simultaneously attempting to influence each other in discrepant ways, the regulated interpersonal feedback they both provide may lead to mutual misinterpretation and other dysfunctional consequences for the relationship between them.
The study tested differences in angry vs. sadness regulatory emotion reactions in Greece and Germany. These countries differ in levels of interdependence, which in turn influences display norms and reactions to anger vs. sadness events in social contexts (Hareli, Kafetsios, & Hess, 2015; Hess, Blaison, & Kafetsios, 2016). Participants (225 Germans, 71 men, and 245 Greeks, 46 men) read a vignette describing either car vandalismo a lost luggage situation, encountered either in the presence of family or acquaintances. Previous research suggests that both anger and sadness reactions can be appropriate in these situations. Participants were asked to choose a drawing of a facial expression that depicted either emotion and to then indicate the intensity of the expression which they would consider appropriate in this context. Individual differences in social orientation and habitual emotion regulation strategies were assessed. Greek participants had higher interdependence than the German participants as expected. Greeks chose more sadness reactions for car vandalism than for the lost luggage scenario, whereas the inverse was true for Germans, as well as more sadness for distant relationships than more personal relationships. Overall, participants higher in interdependence chose higher intensity reactions and those higher on habitual reappraisal chose more angry expressions. The results suggest that choice of emotion is determined by cultural display rule at the country effect whereas intensity levels seem attributable to individual differences in social orientation and emotion regulation.

**Anger vs. Sadness: Cultural norms and individual differences determine reactions to negative events**

Konstantinos Kafetsios & Ursula Hess

Although we have accumulated a rich body of scientific knowledge about emotion regulation, several fundamental assumptions remain untested. This symposium interrogates two fundamental assumptions about emotion regulation: First, that people consistently use particular emotion regulation strategies; and second, that some strategies are more beneficial than others. Blanke tests the first assumption by investigating whether people show consistent patterns in the strategies they deploy in daily life. She demonstrates that people reliably differ not only in their mean use of strategies, but also in how variable they are in their momentary emotion regulation efforts. Challenging the second assumption, Riediger contradicts the common belief that emotional sharing is an effective emotion regulatory strategy, demonstrating that everyday emotional sharing is associated with emotional costs, but relational benefits. Greenaway questions whether people have access to knowledge about the benefits of particular strategies, and shows that this knowledge varies by the individual and by the strategy. Next, Kalokerinos questions whether the benefits of emotion regulation depend on features of the individual, and shows that effective emotion regulation relies on the ability to precisely describe one’s feelings. Finally, Ford questions whether the ability to regulate emotions is necessarily healthy, and demonstrates that, despite its benefits for individual well-being, effective emotion regulation may have costs for collective political action. Taken together, the talks in this symposium aim to advance
Managing the daily stress of politics

* Brett Ford, Matthew Feinberg & Sabrina Thai

Recent theoretical models of emotion regulation emphasize that the longer-term outcomes of any strategy – including ‘gold standard’ strategies like reappraisal – should depend on the context in which that strategy is used. We propose that there may be important trade-offs to using emotion regulation in contexts that could benefit from direct action (e.g., collective political action). When faced with the day-to-day stress of modern politics, it is natural to want to feel better and protect one’s well-being. However, feeling better may also come at a cost. The present research examined the implications of using effective forms of emotion regulation to manage the daily stress of politics using two weeks of daily diaries in a U.S. sample of adults (N=198). We found that people frequently responded to daily political events with intense negative emotions and people were highly motivated to engage in emotion regulation to help manage their negative emotions. In turn, successfully using emotion regulation on a given day predicted greater daily well-being, but it also predicted weaker motivation to engage in collective political action, a cornerstone of functioning democracy. These findings suggest that individually adaptive emotion-regulation processes may help restore well-being in the context of upsetting day-to-day political events, but may collectively cost us democracy-shaping action.
Decades of research has built a solid scientific understanding of the impact of emotion regulation strategies on emotion outcomes. Researchers are the generators and gatekeepers of this understanding; thus, we do not know the degree to which laypeople have access to this knowledge. A lay approach can be used build better emotion regulation interventions, for example by targeting dimensions on which lay knowledge differs from what is indicated by theory. We present a new tool for assessing emotion regulation knowledge about two well-understood strategies: cognitive reappraisal and expressive suppression. Data from 2,400 participants reveal consistent patterns: on average, people were more knowledgeable about reappraisal than suppression, although this main effect differed across emotion outcomes. People were more knowledgeable about how reappraisal shapes emotion experience and the time-point at which this strategy should be used. In contrast, people were more knowledgeable about how suppression shapes emotion expression and its impact on social outcomes. Knowledge did not differ for regulation of positive vs. negative emotion. This work places the responsibility—and right—of forwarding this research agenda on the shoulders of academics and laypeople alike, allowing us to develop a comprehensive understanding of human emotion regulation with theoretical and applied relevance.

EMOTION REGULATION  🗓️ July 12th  ⏰ 09:00—10:30  🆕️ A0.01

Trait Emotion Regulation Strategies as Density Distributions of States

 ★ Elisabeth S. Blanke, Elise K. Kalokerinos, Michaela Riediger & Annette Brose

The trait-as-density perspective on personality characterizes trait-level behavior not only by mean levels, but also by within-person variability (Fleeson, 2001). Traditionally, emotion regulation (ER) has been studied using mean levels, but more recent theory aligns with the traits-as-density perspective, suggesting, for example, that some individuals are more or less variable or consistent in their use of ER. However, there is not yet empirical evidence for such between-person differences in ER variability. Such evidence would launch a new field of research on the causes and consequences of this variability, with implications for psychological well-being and maladjustment. We thus examined whether density information gathered from repeated assessments of state ER in daily life indeed mark reliable and stable between-person differences characteristics. We used data from a longitudinal study with two waves of experience sampling. Participants (N=153) provided on average 70 measurement occasions per wave. We investigated the internal consistencies and odd-even stabilities of ER within the waves, and re-test correlations across waves. Overall, ER aggregated means and standard deviations were reliable and stable within and across the waves. This suggests that approaches focusing on mean ER and not investigating variability exclude a stable source of variance. We discuss that conceptualizing trait ER in terms of density distributions might foster our understanding of the role of ER in psychological well-being.

EMOTION REGULATION  🗓️ July 12th  ⏰ 09:00—10:30  🆕️ A0.01
Emotion differentiation, or emotional granularity, is the ability to experience and label emotions precisely, and has been linked with psychological well-being. It has been theorized that differentiating between emotions provides important information that facilitates effective emotion regulation: when you can pinpoint how you feel, you can tailor your regulation more successfully. However, this link between differentiation and regulation has yet to be comprehensively tested. In two experience-sampling studies, we tested this link. Study 1 examined these processes as they naturally unfold in daily life as part of a three-wave longitudinal study (N=202 participants, 40,263 measurements), and Study 2 followed an emotional event: first-year students receiving their first-semester exam results (N=101 participants, 9,102 measurements). We examined how differentiation relates to 1) emotion regulation strategy selection, and 2) the implementation of strategies to down-regulate negative emotion. We found few consistent relationships between differentiation and the selection of putatively adaptive or maladaptive emotion regulation strategies. Instead, we found interactions between emotion differentiation and regulation strategies in predicting changes in emotion: Among low differentiators, both adaptive and maladaptive strategies were more strongly associated with increases in negative emotion. These findings suggest that low emotion differentiation may hinder the effective implementation of strategies to down-regulate negative emotion, supporting theory suggesting that effective regulation underlies the benefits of differentiation.

A problem shared is a problem halved? Affective and interpersonal functions of everyday emotional sharing

Disclosing negative emotional experiences— or emotional sharing – is assumed to be an effective emotion-regulatory strategy. Empirical evidence for this, however, is scarce and typically stems from studies that investigated emotional sharing either retrospectively or in with unfamiliar confederates. In everyday life, however, emotional sharing typically occurs shortly after the event and with familiar persons. We hypothesized that in these contexts, the primary function of emotional sharing may not necessarily be immediate mood repair, but rather facilitation of interpersonal closeness. In a dyadic experience-sampling study with 100 cohabitating, heterosexual couples, both partners repeatedly used mobile phones to document whether they had recently experienced a hassle and whether they had told their partner about it. Both partners also repeatedly rated their current affect and how close they momentarily felt to their partner. Participants’ relationship closeness was again assessed about two years later. When everyday hassles had occurred, participants reported lower emotional well-being, but higher feelings of closeness towards their partner when they had shared the experience with their partner as compared to when they had not. In addition, the more participants engaged in emotional sharing during the experience-sampling phase, the higher were both their own and their partners’ reports of relationship closeness two years later, controlling for initial relationship closeness. In conclusion, this study suggests...
that immediate mood-repair may not be the primary function of everyday emotional sharing. Instead, our findings are consistent with the idea that emotional sharing serves interpersonal functions of regulating relationship closeness, both immediately and over time.

**EMOTION REGULATION**  📣 July 12th  ☕ 09:00—10:30  🗓 A0.01

**SYMPOSIUM**

**All that's valence is not affective – affective and non-affective representations of valence and emotion.**

Assaf Kron

The term valence refers to both the affective response (e.g., experiencing bad feelings) and semantic knowledge (e.g., knowing that cancer is bad). Humans’ ability to represent valence both affectively and semantically provides a clear advantage: It preserves the evolutionarily functional, immediate role of affect, while at the same time enabling the representation of stimulus value without spending a great deal of resources on full-blown affective response. The importance of this distinction in research is well recognized by emotion theories, though disentangling the two is challenging. Consequently, with the absence of a clear marker, tasks that are potentially semantic in nature may be interpreted as affective. This symposium aims to present the contribution of the distinction between affective and semantic representations of valence to various domains of affective science. First, Hillel Aviezer will address the gap between poses, stereotypical facial expressions that are more reflective of semantic knowledge, and real-life facial behavior that is part of the affective response. Secondly, Ella Givon and Nachson Meiran will discuss the differences between feelings-focused and semantic-focused self-reports in the context of an evidence accumulation model for generating feelings. Thirdly, Michal Kuniecki will present the distinction in the neural domain for the case of visual stimuli. Fourthly, Assaf Kron will present work that systematically dissociate affective and semantic representations of valence.

**AFFECT**  📣 July 12th  ☕ 09:00—10:30  🗓 A1.03

**How Does The Emotional Experience Evolve? Feeling Generation as Evidence Accumulation**

Ella Givon, Ayelet Itzhak-Raz, Anat Karmon-Presser, Gal Danieli & ✨ Nachshon Meiran

How do people answer the question “how do you feel?” In the present work, participants were given two tasks in each trial. They first indicated whether a picture made them feel pleasant (or was supposed to be felt as pleasant, in another group), and then made gender decisions regarding faces. Evidence accumulation modeling showed that (a) reporting genuine feeling is qualitatively different from reporting the supposed feeling; (b) reporting one’s feeling is remarkably similar to gender decisions; (c) evidence regarding negative feelings accumulates more quickly than in positive feelings. These results support the assumption that when asked, participants report genuine as opposed to supposed feelings and strengthen the analogy between feeling reports and perceptual decisions.

**AFFECT**  📣 July 12th  ☕ 09:00—10:30  🗓 A1.03
Disentangling brain activity related to the processing of emotional visual information and emotional arousal

Michal Kuniecki, Kinga Wołoszyn, Aleksandra Domagalik & Joanna Pilarczyk

Emotional stimuli are processed in a prioritized manner. Viewing emotional scenes causes widespread brain activations, which are related to various cognitive processes as well as to autonomic activation. We have shown previously that in case of emotional scenes semantic features dominate over visual saliency in attracting eye fixations. This effect is stable even in the condition of poor visibility caused by mixing images with visual noise. Moreover fixating negative emotional objects induces more intense pupil dilations than fixating neutral objects or background of negative images. This substantiates the idea that some dedicated brain regions are activated by the presentation of negative scenes resulting in the more intensive processing of the information contained in the presented image. In the follow-up experiment, we scanned participants and measured their pupil size while they were viewing negative and neutral natural images. We showed that arousal induced by the negative images, as compared to the neutral ones, is primarily related to higher amygdala activity, while increasing visibility of negative content enhanced activity in the lateral occipital complex (LOC). It may suggest that higher areas of the visual stream are fine-tuned to process emotionally relevant objects irrespective of the level of arousal. Both arousal and processing of emotional meaning modulated activity within the ventromedial prefrontal cortex (vmPFC). Overlapping activations within the vmPFC possibly reflect the integration of these aspects of emotional processing.

Empirical examination of the dissociation between affective and semantic representations of valence

Assaf Kron, Aksana Itkes & Larisa Olteanu

Valence can be represented affectively (i.e., feeling bad) and semantically (i.e., knowing that X is bad). The affective and semantic modes of valence are difficult to separate from one another for purposes of empirical examination. One reason that the dissociation is particularly challenging to investigate is that there is usually a high degree of correlation between the two; meaning that the emotional response is often determined, or inextricably colored, by the activation of semantic knowledge and vice versa. Here we present three experimental approaches that offer a window into this potential dissociation. Experiment 1 examined the divergent effect of repeated exposure on semantic- and affective-based measures. The results showed that measures related to affective valence (feelings-focused self-reports, heart rate, and facial EMG activations) attenuated with repeated exposure, whereas measures related to semantic valence (knowledge-focused self-reports and congruency effect of affective Simon task) did not. In experiment 2 we compared the ability of the three types of self-report data (feelings-focused, knowledge-focused, and traditional instructions) to predict facial electromyography, heart rate, and electrodermal changes in response to affective stimuli. Results suggest an advantage for feelings-focused instructions over knowledge-focused instructions with traditional instructions falling in between. In experiment 3 we examined the divergent effect of level of abstraction of the stimulus on affective and semantic measures. Results suggest that the affective response is more influenced by stimulus level of abstraction (i.e., stronger with more concrete stimulus) than semantic knowledge.
results to emotion theory and research is discussed.

If you're happy and you know it: Representations vs. real-life expressions

Hillel Aviezer

The distinction between positive and negative facial expressions is assumed to be clear and robust. Nevertheless, accumulating research with intense real-life faces has shown that viewers find it challenging to differentiate the valence of such expressions without the use of context. Using FACS analysis, we supplied participants with valid information about objective facial activity that could be easily used to differentiate positive from negative expressions. Strikingly, ratings remained virtually unchanged and participants failed to differentiate the valence of positive and negative faces. We propose that the immunity of participants to objectively useful facial information results from stereotypical (but erroneous) inner representations of extreme positive and negative expression. Finally, we suggest that these representations originate from social situations in which expressions are used strategically to convey interpersonal signals to others. Our work suggests that facial reaction diagnosticity depends on the situation, that inner representations may dissociate from real-life expressions, and that context may play a key role in everyday emotion perception.

The influence of emotions on cognitive functioning.

Katharina Schnitzspahn & Francesco Pupillo

Memories for positive events such as one's birthday party can be especially well preserved, while sometimes it seems impossible to focus on work, because we are feeling sad. It seems plausible that our emotions influence our cognitive functioning, but how exactly and why do emotional and cognitive processes interact? The current symposium will systematically address these questions using different methodological and analytical approaches. It will consider the effects of emotional task material on cognitive performance as well as the effects of emotional states. First, Michiko Sakaki will present a series of experiments showing that emotionally arousing stimuli selectively enhance processing and remembering of surrounding stimuli if these are highly salient or goal-relevant. Thomas Hostler will present a meta-analysis suggesting that intentional behaviour is better implemented when the moment to perform the intended action is indicated by a positive cue. Annette Brose will present results of a psychometric study suggesting that emotional information is not processed and maintained in a separate working memory subsystem for affective information. Moving from effects of emotional task material to emotional states, Julia Vogt will present two studies suggesting that our desired affective states can guide attention to goal-relevant stimuli, as long as the goal is functional. Francesco Pupillo will present a naturalistic study using experience sampling to measure naturally occurring mood and
cognitive performance in participants’ everyday lives. Results show that young but not older adults’ cognition is impaired by negative mood, while positive mood enhances cognition in both age groups.

How desired emotional states impact attention and attentional control

Julia Vogt, Bahram Mahmoodi Kahriz & Joanne Bower

Do people see what they feel or want to feel? Much research suggests that people attend to emotional stimuli that reflect their current or chronic emotional state. For instance, anxious or fearful people attend to threat. In the present talk, we will examine whether people also attend to information that reflects their desired emotional state. In Experiment 1, we investigated whether threat causes people to attend to threat or to stimuli that represent safety. In order to do so, we induced a threat and measured attention to stimuli representing the threat and to stimuli that allowed participants to avoid threat and reach safety. Attentional priority was given to stimuli that represent safety. In contrast, study 2 presents first evidence that motivations to reach desired emotional states can also fail in guiding attentional control efficiently. Two experiments suggest that obsessively wanting to feel happy impairs attentional control in the presence of emotional events. In sum, the present talk highlights how desired emotional states impact attention and attentional control. However, whereas functional goals appear to guide attention to stimuli that help to achieve this state, dysfunctional goals seem to impair attentional processes.
The influence of emotional cues on prospective memory: a systematic review with meta-analyses

Thomas Hostler, Chantelle Wood & Chris Armitage

Studying how emotion affects prospective memory can offer a unique perspective on emotion-cognition interactions. Prospective memory refers to the set of cognitive processes that allow one to remember to perform an action in the future, including memory encoding and retrieval, task-switching, and attention. Although a number of studies have investigated how the emotionality of cues affect prospective memory performance, the results are inconsistent, prompting questions as to what moderates any effects. We conducted a systematic search to synthesise research on the influence of emotion on prospective memory. Sixty-seven effect sizes were extracted from 17 articles and hypothesised effects tested using three meta-analyses. Overall, prospective memory was enhanced when positively-valenced rather than neutral cues were presented (d = 0.32). In contrast, negatively-valenced cues did not enhance prospective memory overall (d = 0.07), but this effect was moderated by the timing of the emotional manipulation. Prospective memory performance was improved when negatively-valenced cues were presented during both encoding and retrieval (d = 0.40), but undermined when presented only during encoding (d = −0.25). Moderating effects were also found for cue-focality and whether studies controlled for the arousal level of the cues. Although specially designed studies are necessary to empirically test the patterns observed, the results suggest how emotional cues may differentially affect different cognitive processes (e.g. encoding, retrieval) and how these effects may also be valence-dependent.

Emotional arousal interacts with priority in affecting cognition

Michiko Sakaki

When encountering something emotional, momentary increases in arousal by the event not only affect the way we process the emotional event but also the way we process temporally or spatially nearby information. However, previous studies provide an inconsistent set of results about how emotionally arousing stimuli influence processing of other stimuli around them. According to recent theoretical accounts, emotional arousal should amplify neural gain and therefore stronger inputs should be prioritized more under emotional arousal, while weaker signals should not benefit from arousal. In a series of experiments, we tested this prediction in memory, attention and perception. We found that emotional arousal enhances memory and attention for other information when it is goal-relevant and therefore has strong inputs, whereas emotional arousal impairs memory and attention for other information when it is goal-irrelevant and therefore has weaker inputs. We also found that emotional arousal selectively enhances perception of salient signals over non-salient signals. These results suggest that momentary increases in arousal due to emotional events have enhancing effects only for strong and prioritized representations irrespective of whether priority is determined by high perceptual saliency or goal-relevance.
Affective working memory is not distinguishable from working memory: a psychometric approach

Annette Brose, Peter Kuppens & Florian Schmiedek

It has been suggested that difficulties in regulating emotions that are common in depression are associated with difficulties in the ability to update stimuli in working memory (WM). In this context, the idea emerged that “affective working memory” (aWM) is distinguishable from working memory (WM), with an essential difference between aWM and WM being the material that is being processed: its valence is either neutral or positive / negative. Some evidence emerged that deficits in emotion regulation might be associated specifically with aWM and not WM. The aim of this study was to test whether, from a psychometric perspective, aWM is distinguishable from WM. 180 younger adults worked on a battery of three different WM tasks (i.e., three versions of the n-back task). Stimulus material (words, faces, pictures) distinguished between neutral and affective (positive and negative) stimuli. Using confirmatory factor analyses, we tested whether we could distinguish between factors that measure the performance on affective vs. neutral material. Results were that in none of the tasks, such aWM factors emerged (e.g., the correlation of affective and neutral factors was close to 1). These results suggest that it does not seem justified to consider aWM being a separable construct, at least in healthy young adults. It remains to be tested whether aWM exists in clinical populations, as prior research that established the concept of aWM often has worked such populations.

Influence of everyday mood on naturalistic prospective memory in aging

Francesco Pupillo, Louise Phillips Phillips & Katharina Schnitzspahn

Later adulthood can be characterised by a gradual decline in most cognitive abilities, while emotional abilities remain relatively stable and even improve. As a result, studies suggest that cognition in young but not older adults is impaired by current mood states. However, the majority of these studies were conducted in the laboratory using film clips, pictures or stories to induce mood. More research is needed to examine if the observed pattern of age benefits when being challenged with a cognitive task and an emotional state at the same time actually hold true outside of the laboratory. The aim of the present study was therefore to investigate the influence of naturally occurring mood on cognition. We chose prospective memory (PM), the realisation of delayed intentions, as our cognitive measure given that PM is crucial to maintain independence in later life. We tested 40 young and 30 older adults in a laboratory session and a naturalistic assessment period in participants’ everyday lives. In order to assess natural mood, we sent nine SMS a day for seven days. Each SMS contained a link to a short questionnaire which prompted participants to rate their mood. The naturalistic PM task asked participants to send SMS at specific predefined times and when a particular target word occurred in the SMS. Data analyses are still ongoing, but first results suggest impairing effects of strong negative mood on PM in young adults, while positive mood seems to improve PM in both age groups.
Collectives are complex social systems, that shape –and are shaped by– their constituent members. Affective processes play a key role in the bi-directional processes between individuals and collectives (Van Kleef & Fischer, 2016). Within this symposium, we bring together perspectives from social psychology, organizational psychology, sociology, and computational social science, to provide insight into how affective processes shape –and are shaped by– identity (identification, identity fusion), group structure (norms, hierarchy), and group performance. Each presentation captures a subset of these relations as they occur in real-world collectives. The first two presentations highlight the strong links between individual and collective affective experiences. First, taking an organizational approach, Wolf and colleagues discuss the role of emotion norms in emotional convergence in professional kitchens. Second, adopting a Durkheimian approach at the intersection of social psychology and sociology, Zumeta and colleagues highlight how identity shapes collective flow and perceived emotional synchrony. The next three presentations focus on collective-level factors: group structure and performance. Morgan and colleagues combine sociological, social-psychological, and computational approaches to demonstrate how group structure (hierarchy and reciprocity) shapes individual positive affect in a large-scale online community. Next, Van Kleef and colleagues discuss how sports coaches' emotional displays shape collective affect, individual player's cognitions, and team performance. Finally, Heerdink and Homan show that individual emotions about upcoming group assignments predict student group performance. Together, these presentations highlight the importance of affective processes at the interface between individuals and collectives, and demonstrate the value of an interdisciplinary approach to understand these dynamics.

Emotions as Linking Pins between Individuals and Collectives
Marc Heerdink, Svenja Wolf & Gerben van Kleef

Collective emotions in open vs. closed professional kitchens and the role of emotion expression norms

Svenja Anna Wolf, Lukas D. Schakel & Eftychia Stamkou

Due to time-restrictions and potential costs of failure, professional kitchen teams routinely work under high pressure. Such pressure likely elicits intense emotions (Lazarus, 1999) and the team setting encourages members’ emotional agreement (Barsade & Knight, 2015). The extent of emotional agreement, however, depends on contextual factors such as emotion expression norms (Kelly & Barsade, 2001). In this study, we investigated emotional agreement and convergence in professional kitchen teams across an evening of service in different types of kitchen environments. Specifically, we investigated whether agreement and convergence differed depending on the accessibility of kitchens to guests (i.e., open vs. closed kitchens) and whether these differences could be explained by differing emotion expression norms. Upon their arrival at the restaurants, immediately prior to service, immediately after service, and immediately after cleaning 28 kitchen teams (89 chefs; $M = 29.90$ years old, 72% male) completed paper-and-pencil measures of happiness, excitement, pride, dejection, anxiety, guilt, and anger.
as well as emotion expression norms. Teams showed emotional agreement for all emotions at least at one
time-point (ICC = .06 to .58) and converged across time in pleasant emotions (f = 1.02 to 1.11) as well as
dejection (f = 0.96). However, neither agreement nor convergence differed between open and closed
kitchens (f = 0.03 and f = 0.14) although chefs working in open kitchens reported more restrictive
emotion expression norms (f = .31). Thus, our findings document collective emotions in professional
kitchen teams but beg questions regarding their underlying mechanisms and social or task-related
consequences.

The Affective Foundations of Hierarchy: A Theoretical Investigation of Group Activities on GitHub

Jonathan Morgan, Kimberly Rogers, Nikolas Zöller, Jun Zhao & Tobias Schröder

We present research that shows how both group structures and the cultural sentiments attached to group
members’ identities shape patterns of behavioral exchange and emotional experiences within online
collaborative groups. Our work applies computational techniques to analyze group dynamics in software
development teams on GitHub, the world’s largest software development platform. Drawing on well-
established theories of interaction from sociological social psychology (Heise 2007; Lawler, Thye, and
Yoon 2008), we compare predicted behaviors and emotions in software development teams, generated
through simulations based on our theoretically-grounded model of group interactions, to observations of
actual group interactions on GitHub, with a specific interest in comparing the behaviors and emotions
generated in groups that have (1) hierarchical vs. egalitarian group structures, (2) primarily make
contributions directly or through intermediaries, and (3) exhibit greater or less reciprocity in group
member contributions. Preliminary results indicate that hierarchical groups that feature reciprocity in
group member contributions experience more positive emotions than hierarchical groups with low
reciprocity or egalitarian groups. Simulation results indicate that one mechanism that likely explains this
finding is that these groups tend to generate lower levels of uncertainty about group members’ roles and
behavioral expectations than egalitarian groups, while also allowing group members opportunities to
affirm their identities.

Perceived emotional synchronization and shared flow in collective sports-physical activities

Estibaliz Mateos-Pérez, Larraitz Zumeta, José J. Pizarro, Magdalena Bobowik, Nekane Basabe, Anna
Wlodarczyk, Saioa Telletxea & Alberto Amutio

In recent years, there is a growing interest in the study of collective emotions and their effects at the
individual and group level. Team sports and physical activities performed in the company of others
constitute an excellent framework for the study of collective emotional processes. This correlational study
analyzes the relationship between identity-related processes, shared flow and perceived emotional
synchrony on perceived collective efficacy (PCE), in collective sports and physical activities. We propose
that ingroup identification and fusion with the group will associate with PCE, and the experience of
shared flow (SF) and perceived emotional synchrony (PES) will mediate this relationship. A sample of 276 university students filled in a questionnaire measuring different aspects related to their participation in collective physical and sports activities. Multiple mediation analyses showed that SF and PES mediate the relationship between ingroup identification and PCE, whereas the relationship between identity fusion and PCE was only mediated by PES. Results suggest that both SF and PES explain the positive effects of ingroup identification and identity fusion with the group on PCE. This study, in line with a Durkheimian approach, highlights the utility of collective emotions and social identities in collective activities and gatherings. Specifically, it shows the substantial role of the emotional synchrony (emotional contagion between the group members and sharing emotions among them, as well as, a perceived synchronic behaviour) as a factor that promotes the perception of collective efficacy.

Positive effects of negative group affective states: Anxiety about group assignments predicts student group performance

* Marc Heerdink & Astrid Homan

Social-functional accounts of emotions assume that emotions have evolved because they advance the survival of individuals and groups alike. At odds with this assumption, the vast majority of studies on the relation between negative group affective states and group performance show this relation to be negative (Knight & Eisenkraft, 2015). To explain this apparent contradiction, we suggest that it is useful to (a) focus on the negative emotions that members bring into the group rather than the emotions that they experience while being in the group, and (b) to distinguish between specific negative emotions, analyzing how they may simultaneously affect individual and group functioning. We conducted two studies in two subsequent cohorts in a course on group processes. Students reported their feelings about the three group assignments prior to being assigned to groups of 3 or 4 members. At the end of the course, participants completed a questionnaire about the functioning of their group. In both studies, shared emotions about the group assignments explained a substantial amount of variance in actual group grades (>30%): groups composed of students who, on average, felt more anxious (and more enthusiastic) about, and prior to the group assignments performed better. Mean-level anger was unrelated to group performance. We conclude that to understand how negative emotions are functional for groups, it is important to distinguish between those caused by internal (group functioning) and external (e.g., the task) factors, and to take both the individual-level and group-level effects of these emotions into account.

Emotional Games: How Sports Coaches’ Emotional Expressions Shape Players’ Emotions, Inferences, and Team Performance

* Gerben van Kleef, Arik Cheshin, Lukas Koning & Svenja Wolf

Sports games are inherently emotional situations. Although a plethora of research has investigated how athletes’ emotions influence their own performance, scant attention has been paid to how one person's
emotional expressions influence others in the sports context. In particular, it remains unclear whether and how sports coaches' emotional expressions influence players. Drawing on emotions as social information (EASI) theory, we examined how coaches' emotional expressions influence players' affect, cognition, and behavior. Across two multi-source field studies of baseball and soccer teams, we found evidence that coaches' expressions of happiness and anger predict (1) players' experiences of happiness and anger, (2) players' inferences about the quality of their performance, and (3) objective team performance outcomes. Regarding team performance, we found that coaches' expressions of happiness were conducive to team performance, whereas expressions of anger were not. These results provide first-time quantitative evidence for the beneficial effects of coaches' positive emotional expressions on sports performance. The findings support key tenets of EASI theory and have implications for the broader literatures on coaching and leadership.

When and why do bodies elicit disgust?

Joshua Tybur

Human bodies often elicit disgust. The current symposium showcases recent work advancing our understanding of such disgust. Giner-Sorolla begins by forwarding our understanding of the role of bodily norms in disgust, in one study comparing disgust toward bodily modifications versus non-normative fashions and, in another study, adding a comparison with disgust toward contortionists, whose bodies are configured in unusual ways (but not modified). Russell then explores the societal implications of a specific elicitor of bodily disgust: breastfeeding. She finds that both disgust and shame (but not guilt) are related to attitudes toward breastfeeding, and she proposes routes to decreasing stigmas against breastfeeding. Tybur addresses another issue related to bodily disgust: the fact that people are more strongly disgusted by potentially infectious contact with some people's bodies than with other people's bodies. He presents evidence suggesting that avoiding such contact is only weakly related to disgust sensitivity, and is instead strongly tied to the degree to which an individual values another's welfare. The final two talks focus on disgust sensitivity: specifically, the information processing underlying the trait and the detection of the trait in others. Using eye-tracking, Wagemans tests whether disgust sensitivity relates to three attentional biases toward disgust-eliciting stimuli: vigilance, maintenance, and avoidance. Findings suggest that more disgust sensitive individuals avoid attending to disgust-eliciting stimuli. Finally, Karinen tests whether individuals can detect the disgust sensitivity of other people. Using a large self-other agreement study, she finds that people can assess other people's disgust sensitivity with a high degree of accuracy.
Attentional biases associated with individual differences in disgust sensitivity: An eye tracking study

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

Individual differences in disgust sensitivity relate to a wide variety of psychological constructs (e.g., moral decision-making, person perception) and are thought to play a role in the onset and maintenance of several psychopathological disorders (e.g., anxiety disorders, obsessive compulsive disorder). Despite its importance, research has yet to uncover the basic information processing strategies that are associated with individual differences in disgust sensitivity. We therefore aim to provide more insight into these processes by examining three attentional biases (vigilance, maintenance, and avoidance) for disgust stimuli as a function of disgust sensitivity. In a first exploratory study, 135 participants engaged in a free viewing task in which they were presented with 10 grids of 4 pictures: 1 disgusting, 1 positive, and 2 neutral pictures. We find that individuals high, versus low, in disgust sensitivity spend less time (per visit and in total) looking at disgust pictures, supporting an avoidance hypothesis. In a second, preregistered, study (N = 149), we extended our design with negative, but not disgusting, pictures. We again find strong evidence for an avoidance hypothesis, supporting the idea that more disgust sensitive individuals have a more sensitive pathogen threat alert system. Interestingly though, our second study also revealed that disgust sensitive individuals show a similar attentional avoidance bias for other negative stimuli. Disgust sensitivity might thus be indicative of a more general defensive strategy than previously thought.

Disgust, Shame and Breastfeeding

Pascale Sophie Russell, Michele Birtel, Kathryn Hart & Debbie M. Smith

Bodily acts, behaviors that involve the body, such as breastfeeding, are believed to be linked with both feeling shame, i.e., feeling that you have done wrong, and disgust, i.e., feeling that someone else has done wrong (Nussbaum, 2004). The aim of the current research was to examine how emotions and norms (moral and social) impact breastfeeding attitudes, behaviors, as well as stigma. We collected data from a general population sample, as well as mothers with children under 2 years of age. Results showed disgust and shame were unique predictors of breastfeeding attitudes, thus, we found that higher levels of disgust and shame are associated with more negative breastfeeding attitudes, for both the general public and mothers. In particular, the results suggest it is important to target feelings of disgust in order to improve breastfeeding rates because people are more likely to perceive the benefits of breastfeeding as they experience less disgust, as revealed by our mediation analyses. Our results also affirmed the idea that social support and self-esteem act as buffers for internalized stigma, whilst perceived discrimination increases the likelihood of internalized stigma because of one's feeding choice. Feelings of shame, but not guilt, played a key role in explaining these relationships. Therefore, the current results demonstrate that disgust and shame may be especially important in breastfeeding perceptions, behaviours and stigma.
Pathogen disgust and the benefits of interpersonal contact

Joshua Tybur & Tom Kupfer

Many disgust elicitors, including bodily wastes, spoiled foods, and dead bodies, connote some risk of infection. But not all infection risks elicit disgust. Indeed, people often happily engage in behaviors that increase their risk of infection, such as close contact with offspring (especially infants), sexual contact with romantic partners, and cooperative contact in exchange relationships. These observations are consistent with information processing models suggesting that disgust is outputted based on not only assessments of pathogen risk, but also on contact benefits. The current study provides a critical test of such a model. Five hundred four participants were randomly assigned to think of an individual belonging to one of four relationship categories: (1) romantic partner; (2) closest friend; (3) acquaintance; or (4) a disliked other. They were then asked how comfortable they were with 10 examples of potentially infectious contact with the target (e.g., Using the target's deodorant stick on yourself; Touching a handkerchief that the target used to blow his or her nose). Finally, they were also asked to complete a task assessing their value that they place on their relationship with the target – a welfare tradeoff ratio task. Comfort with infectious contact was strongly related to target relationship value, $r = .68$, $p < .001$. The effect of target relationship value remained even after controlling for target category (e.g., romantic partner versus acquaintance), $\beta = .21$, $p < .001$. In sum, results suggest that disgust toward pathogen cues varies markedly depending on the source of those pathogens.

Is my disgust showing? Self-other agreement in disgust sensitivity

Annika Karinen, Joshua Tybur & Reinout de Vries

People vary in how much disgust they feel when they see vomit on the pavement, receive unwanted sexual attention, or read about a heinous crime in a newspaper. But to what extent are these reactions visible to others, and do we care about each other’s disgust? Although variation in pathogen, sexual, and moral disgust sensitivity relates to personality and to social and political variables – such as political conservatism, xenophobia, and moral judgment – it is not yet known whether disgust sensitivity is a visible trait. We therefore examined self-other agreement (SOA) in pathogen, sexual, and moral disgust sensitivity – a technique that allows for estimates of trait visibility. Romantic partners (N=290), friends (N=212) and acquaintances (N=140) rated each other on pathogen, sexual, and moral disgust sensitivity and the HEXACO personality dimensions. The dyad members’ ratings were correlated to determine the level of SOA. We found significant SOA in all domains of disgust sensitivity in all relationship categories, except in moral disgust sensitivity in the acquaintance category. Furthermore, self-other agreement in disgust sensitivity was independent of personality perceptions – that is, people did not merely infer the other dyad member’s disgust sensitivity from their personality. Contrary to past research suggesting that affective traits are less visible than personality traits, our results suggest that trait-level disgust is visible to similar extent as personality. Further, the visibility of disgust sensitivity may make it a relevant trait for friend or partner selection in real-world contexts.
What kinds of unusual body presentations specifically elicit social disgust?

Roger Giner-Sorolla & John Sabo

People who present their bodies unusually often elicit disgust, an emotion that facilitates social stigma and discrimination. We tested hypotheses derived from three relevant theories: (1) disgust serves a specific disease-protection function that focuses on breaches of the bodily envelope (e.g., piercings, skin art); (2) disgust serves a social norm protection function that responds to any unusual self-presentation; and (3) disgust serves a body-specific norm protection function that reacts to unusual bodies with or without skin breach. We ran two studies with British undergraduates, each time pre-testing classes of picture stimuli to be equally negative and unusual. Study 1 found that disgust (vs. anger and fear) responded to body modifications more so than weird fashions, evidence against mere social norm protection. Study 2 added contortionist pictures (bodily abnormal, no skin breach) and measured perceived morality. Contortionists were just as disgusting as body modifications, supporting the body-specific theory of disgust over the body-envelope theory, but bodily modifications were seen as more immoral than the other two types, suggesting that disease risk and/or permanent self-harm from body envelope breaches may be a factor in specifically moral disgust towards unusual bodies.

Evaluating those who express congruent or incongruent emotions

Wilco van Dijk

Experimental research is presented that examined how women and men expressing congruent emotions - happy-for (pleasure at another's good fortune) or sympathy (pain at another's bad fortune) - or incongruent emotions - schadenfreude (pleasure at another’s bad fortune) or gluckschmerz (pain at another’s good fortune) are evaluated by (female and male) observers of these expressions on warmth, competence, and morality.

Antecedents of empathic feelings: similarity perception in experience and identity

Jacob Israelashvili & Rachel Karniol

This work proposes a new theoretical model, according to which there are two independent and orthogonal dimensions of interpersonal similarity: (1) based on shared traits (henceforth, Identity-Based Similarity), and (2) based on shared experiences (henceforth, Experienced-Based Similarity), with each type of similarity arousing empathy independently, but with the two types of similarity potentially coexisting simultaneously, thereby intensifying the level of experienced empathy. The proposed model
was tested in five studies which examined the existence of each type of similarity as well as their independent and joint impact on the arousal of empathic responses towards others. Study 1 found that the number of shared experiences significantly predicts the degree of perceived self-other overlap. Study 2 found that participants who shared an experience with another showed greater empathy towards him, even when the other’s distress was caused by a different, unshared experience. Study 3 replicated Study 2 and provided support for the notion that perceived similarity of one’s experiences with those of another arouses feelings of psychological connectedness with the other, and consequently, elicits empathic responses and attempts to assist the other in a future situation of distress. Studies 4&5, examined the joint impact of the two types of similarity (identity/experience based) on the arousal of empathic responses and willingness to help the similar other. These studies provide support for the proposed model and demonstrate that both experience-based similarity and identity-based similarity jointly shape the way in which individuals relate to others and in particular their behavior in the empathic domain.

Empathy: What’s Emotion Got to Do with It?

Natalia Ruiz-Junco

The study of empathy as an emotion has advanced in recent years. Psychologists, sociologists and other researchers have moved the field forward, by examining a set of emotional dynamics that clarify how empathy works. While the literature generally posits that empathy behavior can have social benefits, some have questioned the morality of empathy based on its emotional nature. In particular, Paul Bloom (2016) separates “cognitive empathy” and “emotional empathy,” condemning the morality of the latter behavior. By contrast, recent sociological literature on empathy does not morally condemn empathy. Instead, it explores empathy from a social perspective emphasizing the cultural and interactional components of “empathy work,” a social behavior defined by people engaged in social interaction. Drawing on the sociological discussion of the three social forms of empathy, namely, the transcendental, the therapeutic, and the instrumental (Ruiz-Junco 2017), this paper examines further the connection between these empathy types and specific emotion-based processes. By doing so, this paper clarifies the constitutive link between the cognitive and the emotional aspects of empathy work in everyday life.

Pride before the fall? The interpersonal effects of self-focused and group-focused pride on trust

Gert-Jan Lelieveld & Eric Van Dijk

Trust is an important precursor in the development of cooperation. But how can we tell whether someone can be trusted? Recent studies have shown that emotional expressions provide important information in trust-related contexts about one’s feelings and intentions. The current research focused on whether or not the positive emotion pride signals trustworthiness. Although many studies have investigated the social functions of pride, no research to date has compared different types of pride based on the target of the emotion. In the current research we distinguish between self-focused and group-
focused pride, and argue that expressions of self-focused pride elicit less trust than expressions of group-focused pride. In two studies, participants first performed a cooperation task with a simulated partner, after which they received a reaction from their partner, either containing expressions of self-focused (I’m proud of myself) or group-focused pride (I’m proud of us). Subsequently they played a 2-person trust game. Study 1 showed that participants trusted partners who expressed self-focused pride less, than partners who expressed group-focused pride. Study 2 showed that these effects were moderated by performance on the cooperative task. Self-focused pride elicited less trust than group-focused pride, but only when both players performed equally well on the cooperative task. When the partner performed better, they were trusted regardless of whether self- or group-focused pride was communicated. Our findings support the notion that in trust-related contexts emotions convey crucial information and that for the social functions of pride it is important to consider the target of the emotion.

**The impact of actual and perceived emotion regulation on interpersonal cooperation and trust**

* Danielle M Shore, Rens Hoegen & Brian Parkinson

In social decision-making, communicated emotions provide important information about people’s motives and intentions, which shape social appraisals and inform interpersonal behavior. Indeed research shows that expressions communicating cooperative intentions lead to higher levels of interpersonal trust and cooperation. But how does the informational value of communicated emotions change when people regulate their expressions? In social dilemmas people may be motivated to regulate their emotion expressions strategically in order to elicit cooperation. Extant research provides preliminary evidence that regulated expressions diminish interpersonal trust and moderate the impact of the emotion on decision-making. Here, we investigated the impact of actual and perceived emotion regulation on interpersonal trust and cooperation. Using a two-player computer-mediated multi-round social-dilemma task coupled with video-cued recall we examined participants’ use of emotion regulation and their perceptions of partner’s regulation and associated effects on cooperation. Forty-seven participant pairs completed 10 rounds of a prisoner’s dilemma task where they could see each other’s facial expressions via a live video feed. After the task participants reviewed and rated expression regulation for both their own and their partners video. Findings show that participants report regulating their expressions and also perceived that their partners regulated their expressions, although to a lesser extent. Further, this perceived regulation impacted cooperation. Specifically, regulation of negative expressions led to lower levels of cooperation. Overall, the results indicate that people engage in expression regulation in social-dilemma tasks. In addition, perceived regulation changes the informational value of expressions and has a negative effect on trust and cooperation.
What can emotion research learn from the study of dream emotions: a methodological perspective

Pilleriin Sikka

We experience emotions not only during wakefulness but also during dreaming. Dreaming is a sequence of subjective experiences occurring during sleep. Because emotional experiences during dreaming are disconnected from the external environment and motor activity, it is possible to study the “pure” conscious subjective experience of emotions. To date, the emotional experiences that occur during dreaming have been largely neglected in emotion research, although the study of dream emotions and the related methodological issues are relevant for the study of emotions in general. One methodological debate in dream research is centred on self-reports used to collect data about emotional experiences in dreams. Self-reports are the most common, and currently the only, method for measuring the subjective emotional experience. However, it is unclear which type of self-reports – rating scales or narrative reports – provides the most valid and reliable results regarding the underlying emotional experience. In the present talk I will give an overview of a series of studies in which we investigated the degree of convergence between the rating scales and narrative reports of dream emotions. We found that results regarding emotional experiences in dreams are very different, even contradictory, depending on which type of self-report is used. Moreover, rating scales and narrative reports of dream emotions are differentially related to waking state well-being. I will discuss possible reasons for these discrepancies and the implications this has for the study of emotional experiences in both dreaming and waking states.

A novel affective approach to reduce the dehumanization bias

★ Tiarah Engels, Disa Sauter, Bertjan Doosje & David Amodio

Dehumanization – a social bias of perceiving others as less than human – is widespread and has disastrous impact on human welfare (Haslam & Loughnan, 2014). Existing methods attempting to reduce dehumanization have had limited success, as they have relied on effortful cognitive strategies. Given the strong influence of our emotional states on how we perceive others, we argue that modifying dehumanization via emotion may be a more efficient method. The self-transcending and pro-social properties of elevation – an emotion we feel when witnessing exemplar moral acts – make it a strong candidate for reducing dehumanization. In three between-subject experiments we induced elevation (and control emotions) to examine its effect on dehumanization. Dehumanization was assessed by having participants rate to what extent a set of animalistic traits describe members of commonly dehumanized outgroups. Across all three studies results showed that participants who felt elevation as opposed to positive or neutral affect dehumanized significantly less. Furthermore, Study 2 yielded support for our hypothesis that a sense of common identity (i.e., shared humanity) with others mediates the effect of elevation on dehumanization. Finally, in Study 3 we found preliminary evidence that the attenuating effect of elevation extends to the behavioral consequences of dehumanization: Participants who felt elevation as opposed to positive and neutral affect were more likely to sign in opposition of anti-Muslim policy petitions. Taken together, these findings support a novel affective approach to reduce and potentially prevent dehumanization and its adverse consequences.
Individuals with autistic traits often experience difficulties in understanding others’ minds (agency: plans and goals) as well as their emotional states (experience: feel and sense). This applies in particular to those working in STEM occupations which require high systemizing ability. The present research aims to explore differences between STEM and non-STEM (i.e. Social Science (SSC)) fields in the ascription of agency and experience when the targets depict either human faces or anthropomorphic objects. In Study 1, STEM and SSC students (N = 93) rated the perceived animacy (i.e. aliveness) and agency of human faces and vehicles that varied in realism from artificial/anthropomorphic to lifelike. Whereas no differences occurred for ratings of animacy, STEM students were less likely to attribute agency to human faces than SSC students. This result persisted when individuals’ autism quotient (AQ) scores were considered as a covariate, but was non-significant in the context of vehicles. In Study 2, STEM and SSC students (N = 218) rated the perceived agency and experience of human faces that varied in realism and were presented either alone or embedded within a vehicle body. Ascriptions of agency and experience to face-only stimuli were significantly reduced for STEM compared to SSC students (also when AQ acted as a covariate). However, no such difference was observed in the context of faces with vehicle bodies. The present findings point toward the moderating role of stimulus target type for explaining potential differences between STEM and SSC occupations in mind attribution (i.e. agency and experience).

Accuracy of automatic emotion recognition from voice

Voice is one of the main communicative sources of evidence in interpreting the expression of emotion. Affective computing aims to create systems and algorithms that automatically analyse people’s emotional state. Consequently, several companies such as Affectiva, Beyond Verbal and Audeering have developed automatic systems to analyse the vocal expression of emotions. However, little is known about the accuracy of such systems. To evaluate the accuracy of automatic emotion recognition from voice, we processed vocal expressions from the GEMEP database with "SensAI Emotion" developed by Audeering. The GEMEP database contains audio-video recordings from 10 actors performing 17 different emotional scenarios (Bänziger & Scherer, 2010). SensAI Emotion analyses emotions from speech and renders a value for 23 affective states and for valence and arousal dimensions (Eyben, Scherer, & Schuller, 2018). In terms of category recognition, the accuracy of SensAI labeling GEMEP vocal expressions of emotion is 6.67%. However, this low result is partly due to the high number of different affective state labels recognized. To bypass this label matching bias, we compared the recognition accuracy for valence and arousal dimensions. The results show an accuracy of 0.56 (CI95%[0.46,0.65]) for valence and 0.73 (CI95%[0.64,0.81]) for arousal recognition. Vocal automatic emotion recognition is a growing research area in affective computing. The categorical recognition of emotion remains a challenge due to the diversity of affective states. However, the accuracy of a system like SensAI Emotion provides promising results in the recognition of valence and arousal.
**Professionalism versus Authenticity: Preservice Teachers Struggle to Make Sense of the Emotional Tasks They Face**

Christy Galletta Horner, Kristina LaVenia, Meg Vostal, Oluwatobi Ishola & Jill Bernaciak

The job of teaching children and youth is an emotional one. Many new teachers enter the field pedagogically equipped, but unprepared for the emotional components of the job. Thus, we seek to understand teacher candidates’ early learning about the emotional labor involved in teaching. The emotional labor framework (Hargreaves, 2000; Hochschild, 1983) centers employees’ emotional acting in the workplace with a focus on how this acting is shaped by employers’ expectations (display rules) and oriented toward organizational goals. Our qualitatively driven mixed methods design includes both concurrent and sequential components for the primary purposes of triangulation and enhancement. Undergraduate candidates (N = 116) working toward teaching licensure at a mid-sized, public university in the U.S. Midwest participated. We have collected and analyzed two rounds of data: 17 face-to-face interviews and 104 questionnaires. A third round of data collection is underway, and includes second interviews with candidates after they engage in a guided conversation with their mentors and write a reflection, as well as interviews with teacher mentors and University faculty. A key finding is that candidates described confusion about the emotional labor involved in teaching (e.g., “when is it appropriate to show emotions?”; “what is too much emotion?”). Many said that “professionalism” dictated the suppression of negative emotions while teaching, but they also worried that this suppression would lead students to find them less relatable, less authentic, and simply, less “human.” We discuss implications for research and practice that have the potential to transcend the teaching profession.

**Familiarity Breed Humanity: People Decode Facial Expressions of Emotion in Dogs Better than in Chimpanzees**

Lasana Harris & Sarah Sullivan

Human beings are a highly familiar, over-learnt stimuli. This suggests that a person’s perception of humanity may be grounded in their experiences with other people, not in the biology (genes and physical morphology) of what makes human beings a separate species. Evidence for this comes from the flexible nature of social cognition (Harris, 2017); given that social cognition engagement is required to perceive another as a full human being, instances of reduced social cognition to people suggest that they may not be perceived as full human beings despite the requisite biology (Beyer et al., 2015; Cikara, Eberhardt, & Fiske, 2010; Gutzel & Inzlicht, 2010; Harris & Fiske, 2006; 2007; 2011; Harris, et al., 2014; Mathiak & Weber, 2006). Such dehumanised perceptions are moderated by familiarity (Harris & Fiske, 2006; 2011). Here, we test some predictions of this familiarity theory by exploring how human beings decode facial expressions of emotion in non-human animal species that demonstrate some human-like social cognition abilities and can communicate with humans. Participants infer the facial expressions of emotion in dogs, a highly familiar species with dissimilar genetics and physical morphology, and chimpanzees, an unfamiliar species but our closest genetic cousins with a more similar physical morphology. We find support for the familiarity theory, such that people are more efficient and more accurate at inferring the facial expressions of dogs compared to chimpanzees. This supports the
familiarity theory, and implies that emotion perception relies on shared experiences.

**Experience with enacted autonomy affects threat perception**

* Yulia Chentsova Dutton, Derya Gürcan-Yıldırım & Andrew Ryder

Cultural contexts differ in the frequency and types of threats in the environment, and in the extent to which children encounter threats on their own. Recent decades have witnessed rapid changes in childrearing norms in the US and Canada. Children spend more of their time under adult supervision and wait longer to be granted permission to meet autonomy milestones. Although these cultural contexts are described as valuing autonomy, studies based on measures of enacted autonomy (e.g., walking outside without supervision) characterize them as autonomy-inhibiting. A cross-cultural study showed that Turkish college students (n=166) reported meeting enacted independence milestones earlier than students in the US (n=120), who met them earlier than students in Canada (n=157). Participants evaluated safety of their college environments, described recent encounters with potential threats, and completed psychological functioning measures. In the US and Canada, but not Turkey, students who reported meeting autonomy milestones later were more likely to experience their college environments as unsafe than their peers who met these milestones earlier. In turn, perceived safety of the college environment was negatively associated with psychological distress. Moreover, the association between ratings of objective danger of potentially threatening situations and subjectively experienced distress was higher in Turkey than in the US and Canada, suggesting that fear and discomfort in the North American samples may be less calibrated to features of threatening situations. This study suggests that cultural and individual differences in opportunities to independently explore one’s environment as a child helps calibrate responses to threats among young adults.

**Surprise and freezing responses**

* Marret K. Noordewier, Daan T. Scheepers, John F. Stins & Muriel A. Hagenaars

When people are confronted with unexpected stimuli, they experience surprise. Previous research showed that initial responses to surprises are primarily driven by the unexpectedness of the outcome and reflect an interrupted and surprised state (irrespective of whether the surprising outcome is positive or negative). In the current project, we aimed to further understand the nature of this initial interruption phase. We reasoned that because unexpectedness is in conflict with people's epistemic need to predict, prepare, and understand outcomes, surprise could result in a freezing response—i.e., a reduction in heart rate and body motion. We conducted three studies, where we surprised participants with neutral as well as positive pictures in a repetition-change paradigm. In all studies we measured heart rate and found a reduced heart rate after the surprise as compared to baseline. The heart rate remained lower during the time the surprising stimulus was shown, not just in the beginning. In Study 3, we also included a measure of body sway (i.e., participants stood on a stabilometric platform when they were surprised) and found a
marginal reduction in body sway in the first second after the surprise. Taken together, these studies provide support for a connection between surprise and freezing. Implications will be discussed, including a follow-up study where we compared repeated exposure to positive versus negative surprises with additional physiological measures (blood pressure and finger temperature).

**Emotional coherence of fear**

Ben Meuleman & David Rudrauf

A core concept in psychological theories of emotion is “emotional coherence”. Among other aspects, this concept captures that an emotion episode consists of a pattern of mental and bodily changes that is concurrent in time, involves the whole body, is differentiated qualitatively from non-emotional or emotional states, is reliably observed, and/or is driven as a whole by underlying organising factors. Empirical research into emotional coherence has faced a number of important obstacles, however, which are (a) the absence of a clear theoretical definition of emotional coherence, (b) the weakness with which emotional states are typically induced in the lab, (c) the lack of comprehensive measurement across mental and bodily subsystems, and (d) the statistical complexities associated with the analysis of these multivariate measurements. In this talk, I will first decompose emotional coherence into 7 major sub-aspects. Second, I will present data of a recent study in which we elicited strong fear by a virtual depth exposure, and measured a large number of objective and subjective emotional responses. These data were then analyzed with a combination of model-based clustering and multilevel regressions. Results of the analyses showed that higher depth exposure was associated with more intense fear feelings and more “coherent” overall patterns of fear responses, in the sense of (a) involving changes in the entire body, (b) being differentiated from the no-emotion pattern of responses, (c) implicating specific appraisals and action tendencies, and (d) being labelled systematically with fear-related words.

**Does maternal odor impact fear processing in infancy?**

Sarah Jessen

Within the first year of life, human infants undergo an astonishing development in social and emotional abilities. While newborns show little evidence of emotion discrimination, infants at six to seven months of age can differentiate between various emotional states based on facial expressions but also voice and body posture. Typically, infants at this age show an attentional bias towards threatening, in particular fearful, signals that can be observed in looking behavior but also neural responses. However, it is unclear whether this enhanced fear response can be observed in any situation or might be reduced by signals of security, such as maternal presence. We therefore investigated how maternal odor as a potentially potent signal of maternal presence may impact the attentional response to fearful faces in 7-month-old infants. To that end, we recorded the electroencephalographic (EEG) signal while the infants watched happy and fearful faces. In a between-group design, infants were randomly assigned to one of three groups (each
n=25); a "maternal odor" group exposed to maternal odor, a "stranger odor" group exposed to the odor of an unfamiliar mother of a same-aged infant, and a "no-odor" group. We found that while infants in both, the stranger odor and the no-odor group, showed the expected enhanced attentional response to fearful faces, this response was abolished in the maternal odor group. Our results therefore point to a clear impact of maternal signals on fear processing in infancy and underscore the important role maternal odor may have as a proxy for maternal presence.

**The evaluation of 23 distinctive positive emotions in the Netherlands and Hong Kong**

* Rui Sun, Bryant P.H. Hui, Tiarah Engels, Wei Kai Hou & Disa A. Sauter

There is a growing interest in understanding discrete positive emotions like pride, awe, schadenfreude, and excitement. However, little is known about the role of culture in how we approach different positive emotions. In the current study, we examined how individuals from the Netherlands (NL) and Hong Kong (HK) evaluated 23 distinctive positive emotions. 200 Dutch students and 200 Chinese students judged 23 positive emotions on six features: 1-3) the degree to which each emotion was regarded as appropriate, valued, and approved of in their society, and 4-6) the positivity, arousal, and level of social engagement of each emotion. Controlling for cultural response bias, we found evidence of systematic cultural differences in the extent to which emotions were considered appropriate, valued, approved, positive and socially engaging, but not the extent to which they were considered to be aroused. Furthermore, we found that the extent to which emotions were seen as positive, aroused, and socially engaging influenced whether they were evaluated as being appropriate, valued and approved. The relationships between engaging level/arousal level and being valued/approved were stronger in HK than in NL, while the relationships between positivity and being valued/approved were stronger in NL than in HK. These results suggest that Cantonese individuals value and approve positive emotions that are seen as highly socially engaging and highly aroused, while Dutch individuals value and approve emotions seen as particularly positive. These results will be discussed in the context of cultural models of interpersonal relationships.

**Do You Like Being Envied or Not? A Cross-Cultural Study**

* Derya Gürcan-Yıldırım & W. Gerrod Parrott

Being the target of another person's envy has complex emotional and social consequences that likely depend on cultural values. The purpose of this study was to investigate the cultural differences in emotional reactions in envy evoking situations. 145 Turkish and 105 American university students participated. They were presented with four different scenarios that described circumstances involving personal success or social relationships in which they might be envied by either their sibling or their friend. Turkey is a collectivistic culture which has relationship-oriented values, whereas the United States is an individualistic culture which has success-oriented values. Hence, we expected different emotional reactions to the different situations we created. Results revealed that participants from both cultures
expected more negative emotional reactions from the envier and more positive emotions themselves when the context involved success (vs. relationships). Participants from the US experienced the situation as more self-affirming when the envier was their friend than when a sibling, whereas Turkish participants experienced the reverse. Participants from both cultures expected more benign envy from their siblings than from their friends, and Turkish participants expected more benign envy overall. US participants anticipated distancing themselves from the envier more than did Turkish participants, but Turkish participants anticipated gloating more than did US participants. Thus, we found both cultural similarities and differences in reaction to being envied, which were consistent with cultural differences in collectivism and competitiveness.

Facial emotion recognition in Germany and an indigenous group in Uganda: A cross-cultural comparison

* Martin Krippl, Lars Dumke & Anna Tcherkassof

Cross-cultural emotion recognition studies of Ekman have been criticized, because of the used forced choice format and relatively low recognition rates in isolated cultures (Russell, 1994). The aim of our study was to compare emotion recognition rates of a western German culture with a relatively isolated people from Uganda (Karamojong) with material consisting from more than the usual six basic emotions, and with a more open response format. We hypothesized that the recognition rates in the Ugandan group would be lower than in the German group. We also hypothesized an In-Group advantage for both groups. The sample consisted of 62 German (42 students) and 62 Ugandan (originally 67) participants. We presented eight types of emotion pictures and neutral faces (Keltner & Cordaro, 2014) in printed form (white and black posers). Additionally to the usual six basic emotions, contempt, sympathy and interest were added. Participants could categorize one emotion out of the nine a priori terms, including neutral, choose an own term or could choose “I do not know”. Results support the hypotheses of better recognition rates in the German (64%) than in the Ugandan (36%) sample. Analyzed separately for each a priori emotion, Germans had significantly higher recognition rates than Karamojong, apart from disgust. The In-Group advantage showed only up for the German sample. All in all the recognition rates are low. For the Karamojong they are too low to support basic emotion theory, although one may argue that emotion recognition is not the right paradigm to test the theory.

Emotions first and last: Positional patterns in written communication across cultures

* Simon Schweighofer & David Garcia

Text-based sentiment detection methods presuppose that emotional expressions are distributed uniformly within a text. We tested this assumption by analyzing more than 17 Million public online messages from five social media in English, German, and Chinese. We applied established sentiment lexica, including the English, German, and Chinese versions of the Linguistic Inquiry and Word Count
dictionaries, and Affective Norms lexica of word valence and arousal in English and German. Our results show clear positional patterns of emotional expression both at the level of sentences and whole messages: First, shorter messages and sentences contain more intense and more frequent emotional terms. Second, emotional terms are clustered at the beginning and at the end of sentences and messages. And third, negative terms are preferentially found at the end of sentences and messages. These patterns are reflected both in frequency and intensity of emotional terms, are stable across multiple languages and corpora, and are observable across several orders of magnitude of message length. This suggests that these patterns might be cultural universals. We offer an explanation of these patterns in terms of the well-known serial position effect: If we assume that speakers prioritize the transmission of emotions to their audience, it makes sense that they communicate emotions at the beginning and end of messages, in order to take advantage of the greater retention rate in short-term memory. Our results show how the computerized analysis of large-scale datasets can reveal patterns of emotional expression that are stable across contexts and cultures.

**EMOTION AND CULTURE**  🌸 July 11th  🕒 14:00—15:30  🔄 A2.07

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### The role of perceptual and conceptual properties in affective habituation

* Oksana Itkes & Assaf Kron

Habituation is perhaps the most pervasive and evolutionary ancient form of learning, defined as attenuation of response following repeated exposure to a stimulus. The ability to habituate to affective information is especially important, as constant activation of a strong emotional response can be maladaptive in most everyday situations. Surprisingly, very little is known about the mechanism that underlies affective habituation. In a set of two experiments, we investigated the level of stimulus abstraction at which habituation of emotional response occurs. Specifically, we asked whether in the process of repeated exposure, affective habituation occurs for perceptual, conceptual and/or affective properties of the stimulus. To investigate this question, participants were repeatedly presented with an affective image, followed by a set of test images that shared perceptual, conceptual, or affective properties with the repeated stimulus, allowing us to compare the degree to which habituation can be generalized across different levels of stimulus abstraction. Results demonstrated that habituation across different components of the emotional response (self-reported feelings, facial expressions) were generalized up to the conceptual level of the repeated stimulus. These findings suggest that the conceptual system plays a role in affective learning.

**LEARNING**  🌸 July 11th  🕒 14:00—15:30  🔄 A2.09

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### Support for the goal-directedness of early emotional action tendencies from a TMS study

* Maja Fischer, Chiara Fini, Marcel Brass & Agnes Moors

Traditional emotion theories suggest that emotional action tendencies are initially impulsive but might turn into instrumental behavior during concrete action planning or emotion regulation. Impulsive behaviors are assumed to stem from a rigid stimulus-driven process in which stimulus features are
associated with a fixed action tendency. Instrumental behaviors stem from a flexible goal-directed process, in which the expected utilities of different behavior options are assessed and the behavior option with the highest expected utility is chosen. In line with a recent alternative goal-directed theory of emotion (Moors, 2017; Moors, Boddez, & De Houwer, 2017), we hypothesized that initially impulsive emotional action tendencies can already be determined by a goal-directed process and can override any stimulus-driven process that might run in parallel. We conducted an approach-avoidance task in which 67 participants were randomly assigned either to a condition in which they merely observed positive and negative stimuli or a condition in which they were rewarded to approach negative stimuli and avoid positive stimuli. Action tendencies were measured via motor evoked potentials (MEP) after transcranial magnetic stimulation (TMS). Results showed that positive/negative stimuli led to stronger approach/avoidance tendencies in the observation condition, suggesting the operation of a stimulus-driven process linking positive/negative stimuli to approach/avoidance tendencies. In the response condition, we observed the opposite pattern in which positive/negative stimuli led to stronger avoidance/approach tendencies, suggesting that a goal-directed process was able to override the stimulus-driven process already at an early stage. This suggests that also early emotional action tendencies can be instrumental.

Comparing Three Models of Arousal in the Human Brain

Hadeel Haj Ali, Assaf Kron & Adam Anderson

Valence and arousal are frequently used to model the conscious experience of emotion. In this work, we distinguish between three versions of the valence-arousal model, according to how they interpret the arousal dimension. The first model assumes that arousal is separate qualia from bipolar valence. The second model interprets arousal as the intensity of bipolar valence, and the third model suggests that arousal is a linear combination of two separate unipolar dimensions of pleasant and unpleasant. Thirty participants viewed emotional pictures in the MRI scanner, while providing reports about their emotional response. Half of the reports were given with bipolar valence and arousal scales, and the other half with two unipolar scales for pleasant and unpleasant feelings. Using parametric modulation approach, we compared the three models in their ability to predict neural activation in arousal-related regions. The model "arousal as separate qualia" was estimated by traditional arousal self-reports, "arousal as intensity" model was estimated by absolute values of the bipolar valence scale, and "arousal as a linear combination of pleasant and unpleasant" was estimated by summation of unipolar pleasant and unpleasant scales. The overall results showed an advantage for the sum of pleasant and unpleasant over absolute values of valence, and over arousal, in predicting neural activation in arousal-related regions. No significant difference was found between arousal and absolute values of valence. These findings do not support arousal as distinct qualia from valence in human conscious experience.
Stress-induced Pavlovian bias in reward seeking behavior

Eva R. Pool, ★ Alessio Giarrizzo, Yoann Stussi & David Sander

A common symptom across many clinical conditions such as binge eating, pathological gambling or drug addiction is the willingness to go to extraordinary lengths in order to obtain an object of desire, even though once obtained the object is not experienced as pleasurable. What are the mechanisms that make the human brain vulnerable to situations where choice behavior is hijacked in the service of outcomes that are not valued by the individual? I will present a study where we investigated the impact of stress on the balance between the Pavlovian and the goal-directed control on reward seeking behaviors. We tested the hypothesis that stress amplifies the Pavlovian control of reward-seeking behaviors, while hindering higher-level goal-directed control. To this end, we combined a Pavlovian-instrumental conflict paradigm with a stress induction manipulation and measured anticipation behaviors of visual rewards by means of eye-tracking techniques. We additionally used computational modeling approaches to characterize the specific learning components affected by stress. Altogether, our data provide insights into how stress modulates the balance between the Pavlovian and the goal-direct control, a key mechanism that may underlie dysfunctional reward-seeking behaviors in humans.

Neural markers of emotion dysregulation in acute trauma survivors predict chronic PTSD

Christine Larson

Trauma exposure is extremely common and increases risk for a host of negative health outcomes, most notably posttraumatic stress disorder (PTSD). Unfortunately, despite some progress, determining which acutely traumatized individuals are at risk for chronic PTSD remains difficult. Furthermore, the neural mechanisms predicting longitudinal risk for PTSD are almost completely unexplored. To advance prediction of risk for chronic PTSD, we measured recruitment of the neural circuitry instantiating emotion regulation within two weeks of trauma exposure and the extent to which these neural markers predicted PTSD symptoms six months post-trauma. Dysregulation in both established PTSD networks (e.g., amygdala, ventromedial prefrontal cortex, anterior cingulate cortex), as well as less-studied regions, including the striatum and visual cortex predicted PTSD symptoms at six-month follow-up. Of note, there was some specificity of networks involved in avoidance, hyperarousal, and re-experiencing symptoms, which highlights the need to consider the symptom clusters separately, rather than in aggregate as is the norm in the imaging literature on chronic PTSD. More broadly, these results point to specific mechanisms underlying acute post-trauma emotion dysregulation that can be targeted to better identify trauma survivors at risk for chronic PTSD, and potentially to optimize early interventions.
Preschoolers’ communication about discrete emotions

Jennifer Knothe & Eric Walle

Emotion understanding involves both labeling the discrete emotion and appreciating the significant person-environment relation. While previous work has examined children’s emotion labeling, how children appreciate relational elements of emotion contexts remains understudied. This study examined how contextual information influenced young children’s emotion labeling and attention to emotion-related elements. Children aged 3.5-years (n = 22; 13 female) and 4.5-years (n = 23; 11 female) described images of 5 emotion faces and 5 emotion contexts (anger, sadness, disgust, fear, and joy). Analyses of emotion labeling revealed that 4.5-year-olds were more accurate in labeling disgust when the facial expression was presented with contextual information than the face alone (p = .02). No differences were present for the 3.5-year-olds. We also examined children’s highlighting of distinct relational elements in the context images (the emoter and referent) as a function of the discrete emotion. Analyses of 4.5-year-olds demonstrated significant main effects of picture emotion for mentioning the emoter, p = .02, and the referent, p < .001. Children emphasized the emoter more when describing anger, sadness, and joy contexts than those of fear and disgust, and mentioned the referent more in disgust, fear, and joy contexts than contexts of anger and sadness. No such differential emphasis of relational elements was observed for 3.5-year-olds. These findings highlight developmental differences in how contextual elements differentially impact children’s emotion labeling and how children attend toward specific aspects of discrete emotional contexts. Considerations for future paradigms to explain and extend these findings will be discussed.

Infant appreciation of emotion when attributing preferences from non-random sampling events

Lukas Lopez & Eric Walle

Toddlers can infer a person’s preference from a violation to a sampling distribution (i.e., a person repeatedly taking a minority object from a collection; Kushnir, Xu, & Wellman, 2010). These statistical cues are typically used in conjunction with positive emotional expressions conveying one’s preference. Negative emotions, such as disgust and sadness, have been shown to communicate object avoidance and goal incompletion to infants, respectively (Repacholi & Gopnik, 1997; Chiarella & Poulin-Dubios, 2014). However, no studies have examined the expression of these negative emotions in the context of non-random sampling. In the present study, 24-month-old infants (N = 21) observed an experimenter express an emotion (i.e., joy, sadness, or disgust) after random and non-random sampling events. Infants were then allowed to give either the target or the alternate toy to the experimenter. Regardless of random or non-random sampling, X2s (1, 20) < 0.48, ps > .68, infants inferred the experimenter’s preference in the joy condition by giving the target toy (71%), and inferred the experimenter’s dis-preference by giving the alternate toy in the sadness (56%) and disgust (63%) conditions. These findings demonstrate that 2-year-olds use emotion expression to guide their interpretation of preferences over statistical information. An ongoing follow-up study with 30-month-olds suggests their appreciation of sampling violations regardless of negative emotional cues. So, although emotional expressions are exclusively relied on earlier in sampling contexts, distributional information may be appreciated more as toddlers age.
differences on preference attribution from non-random sampling events in conjunction with discrete emotions will be discussed.

EMOTION AND DEVELOPMENT  📆 July 11th  ⏰ 10:00—11:00  ✉️ A1.03

Meet the editors

In this session, past and present Editors-in-Chief and Associate Editors will present suggestions for avoiding desk rejections, tips on replication and pre-registration, and tell you how to prepare a successful revision. The session will feature Roger Giner-Sorolla, Ursula Hess, Arvid Kappas, Peter Kuppens, Jerry Parrott, Heather Urry, Eric Vanman, and Carien van Reekum. They are editors at a range of journals publishing emotion research including Emotion Review, Cognition and Emotion, Emotion, and Journal of Social Experimental Psychology. The session will be moderated by Alex Panicacci.

MEET THE EDITORS  📆 July 11th  ⏰ 10:00—11:00  ✉️ A2.11

Dirty workers emotional work: A pilot study about Swedish funeral directors

Anneli Öljärstrand

Purpose – The purpose of the study is to investigate emotionally challenging situations in Swedish funeral directors’ daily work with death and their emotional work in these situations. Design/methodology/approach – This qualitative pilot study is based on seven in-depth interviews with funeral directors from three funeral office in Sweden. The data was analyzed using the method meningskategorisering (Kvale 1997) e.g. data was coded in several steps that ended up in some empirical themes. Theoretical focus – The study has a symbolic interactionist perspective which means; emotions are accepted as something physiological and valued as a form of cognition, but also understood as an effect of social and cultural forces, shaped by the social world, and located and contextualised within social practice. The analyse is guided by theory about spontaneous and genuine emotional labour, e.g. workers’ natural and spontaneous emotions, complying with social expectations and organizational display rules. Major conclusions – The results show that Swedish funeral directors face several emotionally stressful situations in daily work. The most emotionally challenged situations are taking care of dead children or parents of children and young people. To deal with the genuine feelings of sadness and powerlessness, they use different tools: Frontstage they try to manage their thoughts and pay attention to practical tasks and backstage they talk about difficult experiences with their mates and use humour and laughter as an important emotional vent.

GENDER AND CLASS  📆 July 11th  ⏰ 10:00—11:00  ✉️ A1.02
Negative Emotion and Perceptions of Social Class

* R. Thora Bjornsdottir & Nicholas O. Rule

Recent research indicates that rich people's neutral faces display more positive affect than poor people's neutral faces do, providing emotion-based cues for the accurate perception of social class (Bjornsdottir & Rule, 2017). Furthermore, perceivers categorize smiling faces as rich more often than neutral faces. But do perceivers use only differences in valence to judge social class from the face, or do they hold expectations about specific emotions? We tested this here by examining how three negatively valenced emotions affect perceptions of social class: sadness, anger, and disgust. The former two relate to both stereotypes and actual correlates of lower social class (depression, hostility; Marmot et al., 1991), whereas disgust does not. Consistent with stereotypes of poor people, targets expressing sadness and anger were categorized as poor more often than neutral targets. However, targets expressing disgust were also perceived as poorer than neutral targets. Together, this suggests that perceivers rely on differences in valence rather than specific emotions to form judgments of others' social class. These findings provide more nuance to our understanding of the relation between emotion and perceptions of social class, indicating that the more pervasive association of low social class as a negative state, rather than specific emotion stereotypes, may drive social class impressions.
Sex Differences in Emotional Concordance

Julina A. Rattel, Frank H. Wilhelm, Michael Liedlgruber & Iris B. Mauss

Emotions involve response synchronization across experiential, physiological, and behavioral systems, referred to as concordance. While initial evidence supports this idea, important questions relating to concordance remain. First, experience can be captured along the dimensions of valence and arousal. Yet, to date little research on concordance has distinguished these two dimensions, leaving it open whether concordance is driven by valence, arousal, or both. Second, theorizing that women are more emotionally aware and expressive than men, one might expect stronger concordance in women than men. However, little research has examined sex differences in concordance. To address these questions, the present study examined effects of affect dimension (arousal and valence) and sex on response concordance. We measured experiential (arousal, valence), autonomic (electrodermal activity, heart rate, preejection-period, respiratory-sinus-arrhythmia), respiratory (respiratory-rate), and behavioral (electromyography at corrugator and zygomatic muscles) responses during 15 two-minute films varying on valence and arousal dimensions. We then quantified pair-wise concordance by computing Spearman’s correlations across films (i.e., within person). Arousal (compared to valence) revealed higher concordance with physiological measures, whereas valence (compared to arousal) revealed higher concordance with behavioral measures. Women displayed moderate to strong concordance, and for almost all indices higher concordance than men. Sex differences in concordance were not explained by response variation in arousal, valence, or body movement across films; thus, sex differences in concordance were not secondary to sex differences in emotional reactivity and metabolic demand. Findings indicate large variance between self-report dimension with physiological and behavioral responses and stronger response coupling in women than men.

A Contextual Goal-Based Theory of Envy and its Outcomes

Yochi Cohen-Charash, Manny F. Gonzalez, Elliott C. Larson, Soohyun (Ashley) Lee & Paige Alenick

The recent flourishing of envy research is accompanied by several debates. For example, whereas some view envy as a unitary construct, others view it as multi-type emotion. Similarly, some suggest that the hostility in envy inherently leads to undesirable outcomes, while others have found that envy, despite being hostile, can lead to desirable consequences. To reconcile these various views, we rely on goal theories of motivation and offer a contextual goal-based theory of envy. Specifically, envy, defined as a hostile, painful emotion, can lead to an array of reactions that fulfill a diverse range of hierarchically arranged goals. At the highest hierarchical level are the envious individual’s goals to reduce the envy-provoking gap, alleviate the pain, and maintain a competitive advantage. The envious can fulfill these goals by accomplishing one or more lower-order goals, such as self-promoting, other-demoting, or escaping the situation. Each lower-order goal can be attained using one or more proximal strategies, such as working harder, harming the other, or reappraising the situation. This goal hierarchy implies that the envious can simultaneously achieve one or more goals by using various strategies. Which goals are activated and what strategies are employed in any given situation depends on the context, which is shaped by various personal (e.g., self-esteem), situational (e.g., changeability), and emotional (e.g., co-
occurring emotions) factors. This theory can increase consistency in the study of envy, reduce the conceptual proliferation currently characterizing the field, and promote new research questions to better understand envy and its management.

**Being Moved by Extremist Propaganda**

- Helen Landmann, Lena Frischlich & Anette Rohmann

Feelings of being moved (i.e., being moved, overwhelmed, stirred) can be elicited by helping behavior and are thus often discussed very positively (Seibt, Schubert, Zickfeld, & Fiske, 2017). However, these feelings could also have a dark side in that being moved may facilitate radicalization processes. We investigated this dark side of being moved by studying the role of self-sacrifice, which is central for the idea of martyrdom held by suicide bombers, and emotional reactions to propaganda videos. In Study 1 (N = 146), we varied self-sacrifice in vignettes and found that high self-sacrifice elicits feelings of being moved. In Study 2 (N = 39), we showed extremist Islamist and extremist right-wing videos to a student sample. The intensity of being moved by the extremist video predicted how persuasive the propaganda videos were rated. In line with the significance quest theory (Kruglanski et al., 2014), search for meaning predicted how intensely someone was moved by the extremist videos. Hence, being moved seems to be a relevant process that is elicited when people are confronted with recruitment videos. Different moving features, such as the metaphor of self-sacrifice, are used to elicit this process thus enhancing the persuasiveness of the propaganda.

**Bored to the Bone: A Meta-Analysis of Individual Differences Associated with Boredom**

Manuel Gonzalez

Research on boredom – an unpleasant emotion that occurs in response to understimulating or unmeaningful activity (Eastwood, Frischen, Fenske, & Smilek, 2012; van Tilburg & Igou, 2012) – has risen in recent years. While boredom research is still young, scholars have already taken strides toward distinguishing boredom from various related constructs (e.g., anger, sadness, low engagement, and burnout; Reijseger et al., 2013; van Tilburg & Igou, 2017) and clarifying boredom’s experiential content (Bench & Lench, 2013; van Tilburg & Igou, 2012). Furthermore, there has been a proliferation of theoretical perspectives regarding the nature of boredom, resulting in recent pushes toward an integrated framework by which to study boredom (e.g., Westgate & Wilson, 2018). It is thus important at this time to systematically organizes the extant empirical research on boredom and evaluate boredom’s nomological network. In the current presentation, I will focus on predictors of boredom and discuss the results of a meta-analytic investigation on the relationship between boredom and various individual differences, including personality traits (e.g., the Big Five) and psychological disorders (e.g., depression, attention deficit hyperactive disorder). Given that researchers have conceptualized boredom in multiple ways, I will consider different conceptualizations of boredom, specifically, as an episodic emotion, a
chronic state, and a trait. Doing so will allow researchers to better understand the individual differences associated with boredom, which will shed light on the underlying psychological mechanisms associated with it.

The role of emotions on populist attitudes when encountering injustice

* Ekaterina Lytkina & Arvid Kappas

Emotions play an important role in political attitudes and, likely, populism. We discuss why individuals sway to populist attitudes when facing a situation causing perceptions of relative deprivation. Relative deprivation is defined as upward comparisons due to a situation of injustice (Smith et al., 2012). Since populist ideology and communication involve an intergroup conflict between typically a corrupt and vicious elite and pure and homogeneous people (e.g., Mudde, 2004; Laclau, 2005), evaluations of fraternal, or group-level relative deprivations are expected to enhance individual’s position on populist attitudes. We hold that the relationship between the perceived fraternal relative deprivation and populist attitudes is mediated by emotions. Based on appraisal theory (e.g., Scherer, 2001), emotions emerging from the appraisal of an event causing perceptions of fraternal relative deprivation are predicted as well as how these emotions affect populist attitudes. For instance, anger should enhance populist attitudes, whereas sadness, anxiety, fear, or guilt should decrease them. Populist attitudes in this context refer to anti-elitism, popular sovereignty and homogeneity (Schulz et al., 2017). The results of two experiments will be presented that study the impact of perceived relative deprivation and the role of emotions in this process with regard to attitudes and behaviors.

Collective Emotions and Social Resilience in the Digital Traces After a Terrorist Attack

* David Garcia & Bernard Rimé

After collective traumas like natural disasters and terrorist attacks, members of concerned communities experience intense emotions and talk profusely about them. While these exchanges resemble simple emotional venting, we hypothesized them to represent a peer-to-peer analogue of Durkheim’s (1912) theory of emotional effervescence in collective gatherings: participants’ reciprocal emotion stimulation would lead to higher levels of solidarity in the community. We present a large-scale test of our extension of Durkheim’s theory through the analysis of the content of peer-to-peer interactions in the aftermath of the Paris terrorist attacks of November, 2015. We collected more than 17 Million tweets generated by 62,114 individuals that we analyzed through the French adaptation of the Linguistic Inquiry and Word Count method. We applied an agent-based modelling approach to explain how collective emotions are built on individual emotional experiences and social sharing of emotions. We found a collective negative emotional response followed by a marked long-term increase in the use of lexical indicators related to solidarity. Expressions of social processes, prosocial behavior, and positive affect were higher in the months following the attacks for the individuals who participated to a higher degree in the collective
emotion. These effects can be observed in the online visualization of our analysis: http://dgarcia.eu/ParisAttacks.html. Our findings support the conclusion that the social sharing of emotions after a disaster is associated with higher solidarity, revealing the social resilience of a community. More details of the research questions, data, and analysis of this submission can be found in the PsyArxiv preprint: https://psyarxiv.com/8envw/

GROUPS  📅 July 12th  🕒 16:30—18:00  ⬆️ A2.09

Social Sharing of Political Emotions in Online Populist Communications

Philipp Wunderlich

Anger and anxiety are frequently considered driving forces of populist party support since their corresponding appraisal structures resonate with characteristics of populist “thin” ideologies. This contribution examines the presence and diffusion of these emotions in populist online communications to gain insights into the formation of intergroup emotions. The study applies a lexical sentiment analysis of discrete emotions to a sample of 275,582 Twitter posts authored by officials of two German political parties frequently characterized as “populist”, the left-wing “Die Linke” and the right-wing “Alternative für Deutschland”, and a baseline sample of 315,536 random posts. Using multilevel regression models, the study compares the presence of anger and anxiety cues across groups and analyses associations between these cues and linguistic references to immigrants and political elites. Also, the effect of expressed anger on the frequency by which posts are shared by their recipients is modelled. Results support the hypotheses that anger, and to a lesser extent anxiety, are dominant emotions in populist communications on Twitter and that populists are more likely to evoke anger when referring to out-groups. Finally, the study shows that anger cues promote the sharing of posts and that this effect is significantly stronger for populist posts. Since social sharing of emotions is thought to contribute to emotional alignment processes within groups and consequently to the strengthening of group identities, these findings do not only depict a strong resonance of emotionalized populist messages promoting out-group devaluation but also hint at their potential to foster in-group cohesion within populist online-collectives.

GROUPS  📅 July 12th  🕒 16:30—18:00  ⬆️ A2.09

Analysing affective dynamics through sentiment in social media status updates

Max Pellert, Simon Schweighofer & David Garcia

Quantifying the temporal dynamics of emotions is important to understand the role of affect in well-being. The way emotional states change is commonly analyzed through self-reports (for example in Kuppens, Oravecz, & Tuerlinckx, 2010), gathering temporal sequences of emotions over periods of few days. However, self-reports pose limits to the length of the observation period and to the amount of participants that can be included in a study. The analysis of social media data poses an alternative way to capture affective dynamics at longer timescales and in large samples of individuals. We studied a dataset of more than 22 Million Facebook status updates donated by more than 150,000 individuals, spanning
observation periods of 1.5 years on average. We applied sentiment analysis and computerized psycholinguistic methods to quantify expressed emotions in terms of valence and arousal, and analysed the resulting trajectories of emotions through a dynamical system model. Our results confirm the existence of an affective baseline of positive valence and neutral arousal that attracts emotional states. We quantified further the attractor strength towards this baseline and the affective variability of emotions across individuals. These results show how observational large-scale analyses can provide alternative evidence to traditional experimental and survey methods, providing a new way to test hypotheses in affective science. Kuppens, P., Oravecz, Z., & Tuerlinckx, F. (2010). Feelings change: Accounting for individual differences in the temporal dynamics of affect. Journal of Personality and Social Psychology, 99(6), 1042–1060. https://doi.org/10.1037/a0020962

**The grapes of grudge: Economic decisions are more favorable for friends than strangers**

★ Janna Katrin Ruessmann & Sascha Topolinski

Exploring the differences between decisions people make for themselves and decisions people make for others, has caught the attention of research only recently, showing fundamental psychological differences between these two modes of decision-making. Here, I investigate the role of envy in interpersonal decisions and how feelings of envy are affected by the social relation between decision maker and decision recipient. In Experiment 1a and 1b (total N = 235), I instructed participants to decide about unfair and hyper-fair offers in an ultimatum game either for themselves or for a client varying in social distance (for a close friend vs. a stranger). In Experiment 2 (N = 137), participants were asked to indicate how envious of a given offer addressed to a close friend vs. a stranger they felt. In Experiment 3 (N = 108), participants were instructed to indicate both, how envious of a given offer they felt, and whether they wanted to accept or reject the offer. Across these experiments the following replicable pattern surfaced: there was no impact of client identity on the acceptance rates for unfair offers. In contrast, participants systematically accepted more hyper-fair offers for themselves and their friends than for strangers. The driving mechanism of this client favoritism effect is envy participants cannot control for in their decisions. They report higher envy for distant (vs. close) client. Apparently, the relevance of a social comparison standard (a friend is more relevant than a stranger) does not always correlate positively with the amount of social-comparison based emotions.

**Towards an Appraisal Theory of Mood**

Mara McGuire

Treatments of mood in the philosophical and scientific literature on affect typically advance one of two positions. On the first, moods are a subtype of emotion and whatever theory is thought to best explain emotions is applied to moods. On the second, moods are thought to differ in kind, or to such a substantial degree, from emotions that no single theory can account for both; so the contemporary
emotion literature is deemed largely irrelevant to explicating moods. I argue that both positions are mistaken: moods are not a subtype of emotion, but some conceptual and empirical work on emotions is relevant to understanding them. I focus on a recent account of mood elicitation developed by Muk Wong (2016), who argues that mood is a response to changes in energy levels in relation to environmental energy demands. I argue that while the need to account for mood elicitation is well taken, it cannot be understood in terms of a mechanism monitoring energy levels. A theory of mood elicitation must be able to explain the elicitation of different types of moods by different events or states of affairs. Understanding mood elicitation along a single dimension is incapable of doing this. Instead, I suggest that we draw on appraisal theories of emotion and argue for the relevance of certain dimensions of appraisal, namely, goal relevance, goal congruence and coping potential, to understanding the elicitation of moods.


Fluency, emotion and the perception of time

Mark Rotteveel

Time perception is a psychological function that can be influenced by emotional processes and vice versa. When instructed to estimate presentation time of studied words, for instance, participants overestimated time in contrast with non-familiar or disfluent words (Witherspoon & Allan 1985). This phenomenon is associated in literature with the classic mere exposure effect; a positive preference shift with fluent stimuli. According to the misattribution hypothesis familiarity leads to perceptual fluency that leads in turn to the overestimation of time. In contrast, the neural coding efficiency hypothesis predicts that stimulus repetition should lead to the underestimation of time. This was found indeed in an experiment in which participants were instructed to estimate presentation time in comparison with a picture that was shown just before (Matthews, 2011). Both results seem to contradict each other but they seem to address similar psychological processes. We manipulated therefore fluency by manipulating color and font (for this manipulation see Carr, Rotteveel & Winkielman, 2016) of neutral and emotion words in a similar experimental paradigm as used by Matthews. Our preliminary results of three experiments show that fluency and positive affect produced overestimation of time in contrast with disfluency and negative affect, but only when the words were evaluated explicitly. Additionally, we showed that repetition can indeed evoke negative affect and maybe even disfluency in particular circumstances. These results underline generally the misattribution hypothesis and will be discussed in the context of future directions for research in time perception, mere exposure and emotion.

When feeling is for seeing: the impact of emotions on visual perception

Aurélien Graton

Emotions can be seen as “mental programs” aimed at orienting actions towards goals to be reached given
the specific emotion elicited. For instance, fear would motivate individuals to look for a safe place. The "feeling is for doing" (Zeelenberg & Pieters, 2006) approach summarizes this view by claiming that specific emotions trigger specific behaviors. However, the cognitive processes underlying this emotion-behavior link remain unclear. The present research aimed at filling this gap and relied on the "wishful seeing" theory (see Balcetis & Dunning, 2009) to show that emotions could shape visual preferences. "Wishful seeing" suggests that the visual perception of natural environment depends on the internal goal of a perceiver. We argued that if a specific emotion causes specific behaviors, then visual perception should be affected to detect more easily stimuli relevant to the relevant goal. A first experiment showed that inducing guilt led participants to detect with greater acuity stimuli related to reparation (i.e., the behavior associated with guilt). In a second study, ambiguous pictures were presented to participants either experiencing anger or not (control group). This images could be seen as either a weapon object (e.g., a grenade) or a neutral object (e.g., pineapple). Consistent with our hypothesis and the "wishful seeing" theory, our results showed that angry participants saw more "weapons-like" objects than control participants. Results are discussed in terms of the influences of top-down processes in the field of emotion research.

A taste of the unexpected

* Lotte van Dillen, Marieke Jepma & Marret Noordewier

Expectations drive perception, such that sensations are assimilated towards them. An interesting question is how far this bias extends, and when it shifts towards surprise. In two studies, we tested this in the domain of taste perception. Taste can be considered a core affective stimulus, as it often has a clear aversive or rewarding nature, but contrary to most other affective stimuli, its intensity can be tightly controlled, lending itself well to examine how expectations and surprise shape sensory perception. We examined taste expectancies in two studies, either between or within participants, by (repeatedly) presenting high and low intensity sweet (rewarding) and sour (aversive) tastants with distinct cues. Results indeed showed that participants assimilated their taste intensity ratings to expectations (study 1) or previously learned associations (study 2). However, this effect was more pronounced when expectancies about taste intensity were assessed within a taste modality (i.e. within sweet or sour) rather than across modalities. Especially when rewarding sweetness cues were next paired with an aversive sour flavour, their influence on taste ratings was reduced and ratings more closely mimicked actual taste intensity. Together, the findings shed new light on the role of surprise in sensory perception, and the potential asymmetry in expectancy violations.

Fascination versus repulsion: How do emotions of other people impact morbid curiosity?

* Suzanne Oosterwijk & Marc Heerdink

Although intuition predicts that people should avoid negative information, deliberate exploration of
negative information is ubiquitous; people are often curious about information involving death, violence or harm. An open question regarding morbid curiosity (e.g., a curiosity for information involving death, violence or harm), is whether people are influenced by others in deciding whether to explore negative information. In a series of four studies (total n = 704), we examined the impact of others’ emotions on morbid curiosity. Specifically, we contrasted the approach-oriented emotional response of fascination with the avoidance-oriented emotional response of repulsion. Participants performed a choice paradigm, in which they could choose to view intensely negative images (or not), based on visual or verbal cues. In a between-subjects design, we manipulated whether participants were told that a majority of previously tested people found the negative images fascinating (e.g., ‘I was captivated’), repulsive (e.g., ‘I felt sick looking at this picture’) or solely negative (control condition). An internal meta-analysis, that tested the effect of others’ emotions on morbid curiosity across the four studies, showed that both fascination and repulsion enhanced choice for negative images. Compared to the control condition, participants were 2.37 times as likely to choose a negative image when others found the negative images fascinating, and 1.68 times as likely when others found the negative images repulsive. These results contribute to a better understanding of the motives for morbid curiosity (e.g., sensation seeking; knowledge seeking), and the influence of social media on behavior more generally.

Can Emotions Justify Beliefs? Epistemic Perceptualism and Outlaw Emotions

Laura Luz Silva

Can emotions justify beliefs? The contemporary debate on the epistemology of emotions centres around dominant perceptual theories and whether the strong epistemic role they afford emotions is plausible. The perceptual theory’s epistemic commitment has been called Epistemic Perceptualism (EP). I raise a novel and important objection to EP concerning the epistemic role of ‘outlaw’ emotions (Jagger, 1989). Outlaw emotions are recalcitrant emotions that go against most or many of our internalized as well as explicitly held beliefs. Take for example a woman that suffers ongoing domestic abuse at the hands of her husband in a society that normalizes such abuse as the expected and encouraged form of female disciplining. Let us suppose that the woman in question has internalized her subservient role and has no conscious reasons to feel anger at her situation. Despite believing her husband to be entitled to treat her this way, she is enraged by her predicament. Outlaw emotions such as this woman’s anger have been considered crucial to gaining knowledge that is otherwise unavailable in ideological settings (Friedman 1986; Jagger 1989). I argue that as EP stands, it cannot account for the epistemic role of outlaw emotions. This is a serious failure given the crucial role outlaw emotions have been afforded by feminist philosophers as well as many perceptual theorists themselves. I argue that only a modified version of EP, one informed by a social epistemology, where the social standing of the agent is key to the justificatory story told, can survive my objection.
Effect of disgust on judgments of moral wrongness: A multi-lab direct replication

Heather L. Urry, Eric Ghelfi, Cody D. Christopherson, Richie L. Lenne, Nicole Legate, Mary Ann Fischer, Fieke M. A. Wagemans & Brady Wiggins

We report a multi-lab direct replication of the experiment reported by Eskine, Kacinik, and Prinz (2011). They found that drinking a bitter, disgusting beverage led to higher ratings of moral wrongness across six moral vignettes than drinking a neutral or sweet beverage (N = 54). In addition, a disgusting beverage contrast (bitter versus both control and sweet) was significant among Conservative participants but not among Liberal participants. In the present research using the same beverages and moral vignettes, random effects meta-analyses (N = 1,137, k = 11 studies) revealed standardized effect sizes that were smaller than originally reported, often in the opposite of the predicted direction. This pattern held in Conservative (k = 3) and Liberal (k = 8) subgroups. Linear mixed effect regressions revealed higher ratings of moral wrongness in the bitter group compared to the control group, at least among participants naive to the hypothesis, but not in the bitter group compared to the sweet group, and there was no moderation by political ideology. In sum, the overall pattern provides little support for the theory that physical disgust via taste perception contributes to moral disgust, especially among Conservatives. That said, although rating data validated the beverage manipulation, we observed low to moderate reliability of moral wrongness in most studies and a paucity of studies with a sufficient number of participants - especially Conservative participants - in each beverage condition. These limitations temper the strength of the conclusions we can draw.

The Neural Circuitry of Emotion-Induced Distortions of Choice

Jan B. Engelmann, Friederike Meyer, Christian Ruff & Ernst Fehr

That emotions can influence our decisions is a well-established research finding (e.g., Damasio et al., 1997). Emotions can both guide choices, for instance in the form of identifying what is relevant (Phelps, 2008), but they can also influence choices in irrational ways, for instance by distorting value and introducing biases (Rick and Loewenstein, 2008). Despite these findings underlining the importance of emotions in decision-making, relatively little is known about the neural mechanisms underlying the effects of emotion on choice. I will present recent findings that demonstrate how emotions can bias our decisions in irrational ways. In two experiments, threat of shock was used to induce aversive emotional states while subjects made decisions to trust another person or to invest in risky lotteries inside the scanner. Aversive emotions differentially impacted social and economic decision-making by suppressing neural mechanisms that are specific for each of these choice domains. Specifically, in the domain of social choice, aversive emotion suppressed activity and connectivity in social cognition regions (temporoparietal junction). In the domain of risky choice, aversive emotions led to a switch form positive value coding in ventral striatum and ventromedial PFC to negative value coding in the insula. These results underline the differential influences of incidental emotions on the neural correlates of social and economic decision-making.
Emotions: The Distinction between Function and Value

Dong An

The evolutionary function and the value of an emotion belong to two different topics. Function is a causal mechanism to promote survival and reproduction. It speaks to the question of explanation. “Value” is about “good”. It speaks to the question of justification. I argue that this distinction is neglected in the functionalist literature on emotions by giving evidences that scholars often overgeneralize the function claims to the value claims. I then argue that this is a mistake. I first contrast function with value by pointing out that emotions can have intrinsic or instrumental epistemic and moral value which are not necessarily related to the functions. I then contrast function with well-being by pointing out that all of the three common theories of well-being, hedonism, desire theory, and objective-list theory (eudaimonia theory), are not necessarily related to the functions. Lastly, I argue that confusing the functions and value is problematic. It would make one intentionally cultivate emotions that might cause harm. For example, anger is evolutionarily functional in helping the agent remove obstacles, but learning or allowing oneself to be easily angry can be bad. The confusion would also mislead people into downplaying the significance of certain emotions. For example, if we equate the value of gratitude with its function of facilitating future interpersonal cooperation, gratitude loses its value. My point is that we cannot derive that emotions are valuable from the claim that they are functional. Pace Hume, we need some premise to bridge the “is” and the “ought”.

The Structure Of Emotion

Kris Goffin

It seems to have become quite mainstream in emotion science to claim that an emotion consists of a number of components. Fear, for instance, should not be reduced to a representation of “danger”, but it should be considered as a complex phenomenon consisting out of a number of additional components such as physiological changes, motivational action tendencies and expressive behavior (such as facial expressions). This raises several questions for philosophical theories which define “emotion” in terms of mental representations. If it is true that the representation of danger is just a single component of a complex emotional experience, how should we think of the relation between mental representation and conscious emotional experience? It would be wrong to say that the conscious experience of fear solely supervenes on a representation of danger. Relying on Fodor’s work on the structure of representations, I will argue that we could think of a full-blown emotion as a structured whole of representational components. Different components of emotion are representations in their own right. Each word of a sentence has meaning, but the sentence as a whole has a meaning as well. The meaning of a word of a particular sentence partly depends on its relation to other the words of that sentence. Likewise, each emotional component has a content which partly depends on the relation to the contents of the other components. Together these components form a structured representation which is the representational basis of a conscious emotional experience.
Cross-cultural differences in emotion concepts are well-established (e.g., Russell, 1991; Wierzbicka, 1994). Purportedly ‘untranslatable’ emotion words are particularly salient examples: Tagalog speakers have a word, “gigil”, for “when something is so cute that you want to squeeze it”, and Italian does not have an easy translation for English “excitement”. But how should ‘untranslatability’ be defined? Previous work has employed a variety of methods for comparing emotion word meaning across languages (see Ogarkova, 2016 for a review). However, most methods are focused on describing the nature of differences in meaning, rather than measuring the similarity or dissimilarity of individual words. In this study, we use free association data from the Small World of Words project (De Deyne et al, 2008, 2013) to construct semantic networks for ‘untranslatable’ Dutch words (e.g., “gezellig”) and their possible English translations, as determined using synonyms and back translation. We selected networks with equivalent metrics, and evaluated the similarity of target words’ behavior within their respective networks using these same metrics. Using this data-driven approach, we found no (single) English word matches for Dutch targets. These observations are supported by pilot data comparing “gezellig”, its semantic neighbors, and possible English translations on the basis of valence and arousal, as well as features of elicited scenarios. To contextualize these results, we also generated networks based on lexical neighborhood data from Continuous Bag-of-Words (CBOW) models trained for Dutch and English (Mandera et al, 2017). Taken together, our results illustrate a novel means of understanding emotional meaning across cultures.
**An Indirect Scaling Method for Testing Quantitative Cognitive Emotion Theories**

* Rainer Reisenzein & Martin Junge

We summarize research conducted during the past years on an improved method for measuring the subjective experience of emotions, an indirect scaling method based on graded pair comparisons. We have evidence that the scale values of emotion intensity obtained with this method have a much higher reliability than the usual rating scales (Junge & Reisenzein 2013; 2015) and even seem to achieve a metric scale level (Junge & Reisenzein, 2016). This makes this scaling method well-suited for testing quantitative cognitive emotion theories. Indeed, very good fits of quantitative cognition-emotion models on the individual subject level were obtained with this measurement method (Junge & Reisenzein, 2013). In recent work, the method was successfully extended beyond the measurement of emotions to the measurement of cognitions and action tendencies (Reisenzein & Franikowski, 2018).


**The social impact of guilt**

* Eglantine Julle-Daniere, Jamie Whitehouse, Aldert Vrij, Erik Gustafsson & Bridget, M. Waller

Guilt is a negative emotion but with the potentially crucial function of stimulating pro-social behaviours towards and from others. We examined the impact of guilty feelings on social interactions, from the perspective of both the guilty person and the social partner. We recruited 218 participants (109 pairs) to take part in a cooperative task. Guilt was experimentally induced in one individual of each pair by telling them that their performance at the task was poor comparatively to the other, and consequently, their joint reward for participation will be lowered. Guilty participants’ responses to this information were video recorded and coded using the Facial Action Coding System (FACS). The social partners were then made aware of this failure while either 1) watching the participant’s spontaneous reaction or 2) watching the participant in a control situation. Guilty participants were then invited to split this reward between themselves and their partner in whatever proportions they wished. How the participants then split this joint reward was examined. We investigated the impact of guilty feelings and the facial expressions produced on the decision made by the social partner.
Introducing the DRAPE: Display Rules Assessment for Positive Emotions

Kunalan Manokara, Disa Sauter & Agneta Fischer

To date, pre-existing scales of emotion expression norms are heavily negative-emotion centric (Matsumoto et al., 1998; 2008), and are open to social desirability biases in participants’ response patterns. To address these concerns, we propose the creation of the Display Rules Assessment for Positive Emotions (DRAPE), a battery of items designed to evaluate peoples’ intersubjective perceptions of how likely and appropriate the expression of discrete positive emotions is in their given culture. Eight positive emotions will be appraised, selected for inclusion based on the dimensions of arousal (Tsai et al., 2006) and engagement (Kitayama et al., 2006). We begin by examining basic scale properties with a community sample of English speakers in the US (Study 1: n = 200). We next evaluate test-retest reliability in a sample of Dutch university students, by employing a repeated measures design (Study 2: n = 100). We finally test the cross-cultural validity of the DRAPE, by comparing between samples that are expected to differ in self-construal (Study 3: n = 250). Community samples of German (independent self-construal), Indian (relational self-construal) and Chinese (collective self-construal) participants will be recruited. We expect socially disengaging positive emotions (e.g. pride) to be deemed less normative for expression in cultures where interdependence is valued and reinforced (Markus & Kitayama, 2001), thereby alluding to the predictive validity of the DRAPE. The present research proposes a refined measure for the assessment of display rules surrounding discrete positive emotions, thus contributing to the fields of affective science and social psychology.

INTERPERSONAL EMOTIONS  🕑 July 12th  ☑️ 16:30—18:00  🎉 A2.07

How Social Comparisons affect the Emotional Reactions to Others’ Fortunes and Misfortunes

Lea Boecker

In a line of six experiments (N = 1,589) I investigated how comparison processes shape the emotional reactions to others’ fortunes and misfortunes. I let participants play a fake lottery and presented them with the lottery wins and losses of other ostensible players and measured envy, schadenfreude, “happy-for-ness” and sympathy in response to these outcomes. Crucially, I manipulated whether the comparison standards had started with either less money than the participants (downward comparison), with the same amount of money (lateral comparison) or with more money (upward comparison). In all six experiments I observed an effect of comparison direction on the intensity of the four emotions. Relative to lateral comparisons, envy and schadenfreude increased (decreased) in response to upward (downward) comparison standards, while sympathy and happy-for-ness decreased (increased) in response to upward (downward) comparison standards. Experiments 3-6 showed that envy, schadenfreude, happy-for-ness, and sympathy, as well as the effect of comparison direction, decreased when the comparison was less relevant. This was the case when the comparison standard was a computer (Experiment 4), or when the comparison standard only played for worthless chips (Experiment 5) and when participants had not played the lottery themselves (Experiment 6). Besides, I am currently conducting two experiments, in which I measure participants’ emotional reactions via facial electromyography (Experiment 7) and explore the behavioral consequences of envy, schadenfreude, “happy-for-ness” and sympathy (Experiment 8). The current findings stimulate theorizing about social
The differential effects of anger and contempt in interpersonal relationships

Inmaculada Valor-Segura, María Alonso-Ferres, Agneta Fischer & Bertjan Doosje

Emotions are essential to understand how people behave within interpersonal relationships. Previous studies have shown that some negative emotions such as anger and contempt are related to a deterioration of the relationship. However, different emotions may have dissimilar implications for romantic relations. In the present research we designed two studies to examine the relational consequences of anger and contempt, as inferred from their motivational, behavioral, and relational characteristics, in close relationships. Based on previous work, we assumed that whereas anger would leave open the possibility for relational repair, contempt has destructive relational implications. Study 1 (N=273), examined the hypothesized distinction between anger and contempt by manipulating both emotions—participants described a conflict in which they felt anger versus contempt toward their partners. Results showed that whereas anger was linked to verbal attack and coercion resulting in a relationship's improvement, contempt was associated with a partner derogation and social exclusion leading to a decrease of affection. Study 2 (N=362), by activating past romantic conflicts, tried to replicate the previous findings and extend it analysing the different types of intimate conflicts which led to each emotions and the deterioration of the relationship quality's process. Results showed, via a Structural Equation Model, that whereas anger was related with a greater relationship quality trough a verbal attack, past and current contempt was linked to higher divorce tendency via partner's derogation, social exclusion and lower relationship quality. The findings are discussed in light of the importance of distinguishing negative emotions within romantic relationships.

The primacy of emotion categories: Uncovering 13 kinds of emotion evoked by music across cultures

Alan Cowen, Xia Fang, Disa Sauter & Dacher Keltner

Evidence regarding cross-cultural regularities in emotional experience is central to the science of emotion. How many varieties of emotion are preserved across cultures in the emotions evoked in distinct situations? Are emotion categories or affective features (e.g., valence, dominance) more culturally universal? Do emotional experiences fall into discrete clusters or span continuous gradients? We provide answers to these questions by examining high-dimensional cross-cultural regularities in the emotions evoked by music using large scale data collection and analysis methods. We analyze hundreds of thousands of judgments from participants in the US (N = 1,011) and China (N = 895) of the emotions and affective appraisals evoked by 1841 music samples. We uncover 13 distinct dimensions, or varieties, of emotional experience that are preserved across cultures. Cross-cultural regularities in emotional response are represented by emotion categories such as “awe”, which drive culture-specific predictions of
affective features such as valence and arousal. However, the emotion categories evoked by music are not discrete—they can be blended together in many ways. Our findings, visualized within an interactive map (https://s3.amazonaws.com/musicemo/map.html), reveal a complex, high-dimensional space of emotional states evoked cross-culturally by music.

**Can the languages migrants use to express emotions define their cultural belonging?**

Alex Panicacci

The culture in which people live plays an important role in shaping their sense of self (Ryder & al., 2000) and emotional patterns (De Leersnyder, 2014). At the same time, previous research showed that individuals who live in between languages and cultures report an intriguing emotional hybridity (Pavlenko, 2005) and consider linguistic socialisation as an intense process of personal transformation (Panicacci & Dewaele, 2017). This research adopts an innovative approach to the topic by placing biographical and linguistic factors side by side. Statistical results from 468 migrants in English-speaking countries, supported by 5 follow-up interviews, revealed that the age of migration, the length of stay and the status in the host country were unrelated to participants’ perceptions of the heritage (L1) and host (LX) culture. Conversely, migrants’ language use, especially for expressing emotions, as well as L1/LX self-perceived dominance and emotionality linked with their attachment to the culture that produced that language. In other words, the cognitive and emotional embracement of the language contributed to enforce participants’ sense of belonging to the culture, explaining a variance of respectively 12.2% and 13.5% in their L1 and LX acculturation levels. Findings thus highlighted the crucial role of language use and affective socialisation in shaping individuals’ cultural belonging.

**Emotion systems in mobile and sedentary hunter-gatherers**

* Ewelina Wnuk & Yuma Ito

Despite the broad consensus about the necessity to study emotion in non-industrialized societies, emotion in many cultural niches remains underexplored. The present investigation focuses on hunter-gatherer populations—a rare type of society today, but a dominant one throughout human history. We examined two hunter-gatherer groups—the Maniq and the Mlabri—focusing in particular on emotion terminology in their respective languages. The two groups are in many ways similar: they are small traditionally hunter-gatherer societies of 300-400 individuals each, they live in Thailand, and speak related Austroasiatic languages. They differ, however, in that the Mlabri were recently forced to settle in permanent villages and turned to waged labor, while the Maniq are still predominantly nomadic and continue to forage for subsistence. We explored the meaning space of emotion using emotionally evocative stimuli: the Amsterdam Dynamic Facial Expression Set (ADFES) (Van der Schalk et al. 2011) and emotional scenarios adjusted to both cultural settings (cf. Boster 2005). We found that Maniq and Mlabri were similar in that they lacked dedicated terms for certain emotion concepts, e.g., disgust, and
participants in both groups often relied on bodily or situational descriptors when responding to facial expressions, e.g., nose-scrunching, stink, etc. The two languages nevertheless differed in their inventory of emotion terms, use of metaphor, and their speakers' appraisals of some emotional scenarios. We discuss these differences in the light of the ethnographic background and recent changes in livelihood, and consider the possible role of sociocultural factors in shaping the domain of emotion.

**LANGUAGE AND BELIEFS  🌤️ July 13th  🕒 10:00—11:30  🔤 A2.09**

**Scripted Emotion Concepts**

Gen Eickers

Leading theories of emotion recognition tend to be perceptual and context invariant. This is untenable. Here I argue that we need a theory of emotion recognition, and hence emotion concepts, that allows for context sensitivity. I argue that this is best explained by proposing that emotions are recognized and conceptualized using scripts. According to the dominant view, emotion recognition happens automatically, fast, and reliably (Ekman, 1969, 1971, 1999). Ekman's claims seem to entail that people, independent of culture and context, have a universal capacity to recognize specific facial muscle movements as emotional expressions. But studies on emotional expressions show that social context has a lasting effect on how emotional expressions are interpreted (Hess, 2009, Crozier & de Jong, 2012, Gendron & Feldman Barrett, 2017). Some theories of emotions allow for context sensitivity. This is a key feature of theories that identify emotions with scripts (Russell, 1991, 2003). As a theory of emotions, this is controversial, but my proposal here is to extend Russell's approach to emotion recognition. That is, in this paper I argue that emotion recognition, hence concepts, works via scripts. Scripts ground our understanding of emotion terms and allow us to categorize emotions in real world situations. Scripts also build in socially inculcated assumptions about group differences. In this way our emotion concepts also become loci of cultural knowledge and biases.

**LANGUAGE AND BELIEFS  🌤️ July 13th  🕒 10:00—11:30  🔤 A2.09**

**Exploring the smile discrimination literature: A scoping review**

● Michael Philipp & Melanie Thacker

Discriminating others' facial expressions is fundamental to negotiating our worlds, and the smile is arguably the most ubiquitous expression we encounter. The function and meaning of smiles has been much discussed in the literature, but there is empirical consensus that we discriminate different types of smiles based on morphological, contextual, motivational, and cultural cues. This scoping study examines the breadth and characteristics of empirical research investigating peoples' abilities to discriminate different types of smiles. We are particularly interested in assessing the theoretical influences, typologies of smiles, and smile stimuli used in these studies. Secondary aims include scoping the disciplines, geographical locations, samples, and designs of these studies. Using a scoping review methodology (Arksey and O'Malley; 2005), we identified more than 120 empirical studies published over four decades that investigate humans' abilities to discriminate different types of smiles. In this presentation we
characterise this literature by reviewing dominant theoretical perspectives, the terminology used to
describe types of smiles, and the stimuli used in these studies. The Basic Emotion Theory of facial
expressions dominates the theoretical perspective of these studies, and smile authenticity is the most
common theme underlying the descriptions used for different smile types. Common descriptions of
smile types include real, fake, posed, and authentic. The stimuli used in these studies vary considerably,
ranging from computer-generated smile videos to in situ photographs of evoke expressions to posed
videos of actors. The findings of this study outline a range of theoretical gaps, design considerations, and
resources for future smile research.

**The Importance of Posed Facial Expression Production and Presentation Method on Authenticity
Discrimination**

* Mircea Zloteanu, Eva Krumhuber & Daniel Richardson

People's ability to classify emotional facial expressions is very good, however, their ability to determine
their authenticity is much poorer. Generally, emotion recognition research investigates differences in
authenticity discrimination by contrasting people's perceptions to ‘posed’ and ‘genuine’ expressions.
However, such a broad categorization is inadequate for accurately capturing decoder perceptions. We
argue that the technique used to produce posed expressions significantly affects how decoders perceive
and discriminate authenticity. Second, that decoders perception is affected by seeing these in a dynamic
or static format. To demonstrate the importance of production method and presentation format, in a
series of studies decoders were assessed on various facial expression types. Senders were filmed as they
experienced genuine surprise in response to a jack-in-the-box (Genuine), while other senders faked
surprise with no preparation (Improvised) or after having first experienced genuine surprise (Rehearsed).
Decoders rated the genuineness and intensity of these expressions, and the confidence of their judgment.
It was found that both expression type and presentation format impacted decoder perception and
accurate discrimination. Genuine surprise achieved the highest ratings of genuineness, intensity, and
judgmental confidence (dynamic only), and was fairly accurately discriminated from posed surprise
expressions. Rehearsed expressions were perceived as more genuine (in dynamic presentation), whereas
Improvised were seen as more intense (in static presentation). However, both were poorly discriminated
as not being genuine. Overall, dynamic stimuli improved authenticity discrimination and perceptual
differences between expressions. Our findings demonstrate the importance for research to consider the
type of posed expression used and presentation format.

**Posed versus spontaneous expressions - can we tell the difference?**

* Shushi Namba, Russell Kabir, Takashi Nakao & Eva Krumhuber

Most research on facial expressions has focused on posed rather than spontaneous facial expressions. Yet,
the differences in their properties and the ability for observers to discriminate between the two types
remain unclear. This present research aims to examine the encoding and decoding of spontaneous and posed expressions on the basis of four emotions: surprise, amusement, disgust, and sadness. Study 1 compared the morphological and dynamic properties of 103 spontaneous and posed facial expressions. Results showed that facial activation patterns at the apex phase significantly differed between spontaneous and posed displays. Also, the two types of expressions comprised different dynamic sequences in which the facial actions reached their apex. Study 2 explored whether observers (N = 58) can discriminate between posed and spontaneous displays of the four emotions when seen in a static or dynamic form. Results showed that dynamic (compared to static) information significantly increased the ability to detect the absence of an emotional experience in posed expressions. However, it had no effect on participants’ ability to detect the presence of an emotional experience in spontaneous expressions. Together the findings point towards clear differences in the encoding and decoding of spontaneous and posed expressions. Moreover, they suggest that the two abilities in detecting the presence/absence of an emotion are unrelated, with dynamic information only contributing to the latter one.

The Relation Between Infant Emotion Matching and Early Childhood Emotion Understanding

*Marissa Ogren & Scott P. Johnson

Emotion understanding, the ability to identify and interpret others’ emotional expressions and reactions, is an important developmental skill, and investigating how this skill develops early in life is crucial. To date, it remains unclear how commonly used measures of emotion matching in infancy relate to emotion understanding in early childhood. In the present study, we hypothesized that infants’ emotion matching would predict early childhood emotion understanding. Forty infants (20 male) participated in this study at 9, 15, 21, and 30 months. At the first three visits, infants engaged in an intermodal emotion matching task adapted from Walker’s (1982) design. Infants viewed silent and asynchronous audio trials with pairs of happy, sad, angry, and neutral facial expressions. Emotion matching was calculated as the increase in looking time to one emotional face from the silent condition to the condition with the matching emotional tone. At the 4th visit, children participated in the Affective Knowledge Test (AKT; Denham, 1986). Results revealed that only the 15-month emotion matching performance predicted AKT performance, and the relation was negative (ρ=-.464, p=.010). Relations between the AKT and 9-month (ρ=-.002, p=.991) and 21-month (ρ=-.097, p=.624) emotion matching were non-significant. The negative relation observed at 15-months indicates that a novelty preference on emotion matching tasks at this age may be particularly indicative of later emotion understanding performance. These results hold implications for better understanding the trajectory for early emotion understanding development, as well as a potentially beneficial age to target for early emotion understanding or emotion matching interventions.
For Afro-Latinx individuals, who identify as both Black and Latinx, dual ethnic and racial identities may pose risks for perceived discrimination from both outgroup members and ingroup (i.e., those who identify as only Black or Latinx) members. Importantly, perceived discrimination is a known risk factor for poor psychological well-being, a relation that may be moderated by ethnic identity. Little research in the United States examines racial and ethnic group differences in subgroups of Latinxs, particularly Afro-Latinxs’ experiences of discrimination and their association with depressive symptoms. A cross-sectional, mixed methods study was conducted to investigate the relation between perceived discrimination (i.e., recent, lifetime, and appraised) and depressive symptoms and the moderating role of ethnic identity in a sample of 109 Afro-Latinx adults (Mage=35; Female=67). Quantitative results indicated that perceived discrimination relates positively to depressive symptoms. This relation was moderated by ethnic identity (i.e., when ethnic identity was low, depressive symptoms and discrimination scores were not significantly related). Perceived discrimination related negatively to ethnic identity exploration. A thematic analysis of qualitative survey responses substantiated these results and illuminated several key themes. First, despite pervasive experiences of discrimination, Afro-Latinx identity is often a source of pride. Second, many respondents believe that outgroup or ingroup members perceive them as other, which creates pressure to prove they belong. Third, there is great heterogeneity in the experiences among Afro-Latinx individuals. Findings have implications for enhancing clinical understanding of Afro-Latinxs.
Development of emotion regulation: Cross-generational patterns of emotion socialisation and emotion regulation

Amanda DiVita, Diana Montague & Jennifer Fermaintt

The ability to regulate emotions has implications for functioning and develops, in part, in relation to early family experiences (Bridgett, Burt, Edwards, & Deater-Deckard, 2015). Parents’ own regulation and responses to children’s emotion may play a role (Buckholdt, Parra, & Jobe-Shields, 2014); thus, understanding precursors to these parental behaviors is important. Relations between emotion regulation and caregiver responses to emotions, as well as patterns in regulation and parental responses to emotions across generations, were examined. Sixty-three adolescents (Mage = 12.54) and one of their caregivers reported their regulatory abilities and described how their caregiver responded to their emotions. For both adults and adolescents, memories of caregivers’ unsupportive responses related to more dysregulation, their supportive responses related to less dysregulation, and there was a predictive effect for unsupportive responses. Caregivers’ difficulties engaging in goal-directed behavior related to their less neglectful responses, though no other facets of caregivers’ regulation related to their responses. Positive relations existed between caregiver and adolescent regulation in nonacceptance of emotions, abilities to manage emotions and behavioral impulses, and understanding and awareness of emotions; and caregivers’ understanding and awareness predicted adolescents’ respective abilities. Caregivers’ responses to their children's emotions did not relate to recollections of their own parents’ responses. Implications for mental health treatment are discussed.

Parental emotion-related discourse patterns and child behavior problems in early childhood: A person-centered approach

Erika Hernandez, Cynthia L. Smith, Kimberly L. Day, Amy Neal & Julie C. Dunsmore

Parental emotion-related discourse is well-established as a key influence on children's developing social competence, yet little is known about how different forms of parental emotion-related discourse work in combination. In the current study, we take a person-centered approach to examine relations of multiple forms of parental emotion discourse with preschoolers’ behavior problems. We also extend the literature by examining discourse about positive and negative emotions. We simultaneously examined three forms of parents’ emotion-related discourse (emotion coaching and dismissing, emotion explanations, and elaboration), using cluster analysis to determine parents’ patterns of these discourse forms during discussions about past emotional events. Parents and their preschool-aged children (n=154) completed a reminiscing task. Transcripts were coded for emotion coaching and dismissing, emotion explanations, and elaboration. Parents reported children's internalizing and externalizing behaviors using the Child Behavior Checklist. T-scores normed for child age and sex were used to categorize children’s behavior as in the typical range (T-score < 60) or in the borderline/clinical range (T-score ≥ 60) for each subscale. Cluster analyses revealed three parental discourse patterns: elaboration/negative emotion emphasis, positive and negative emotion emphasis, and low emotion discourse. Children of parents in the elaboration/negative emotion emphasis cluster were less likely to have externalizing scores in the clinical or borderline clinical range (χ²=4.88, p=.087), but more likely to have internalizing scores in the clinical
or borderline clinical range ($\chi^2=6.72, p=.035$). Findings support the utility of a person-centered approach in providing a holistic view of parents’ use of multiple forms of emotion-related discourse.

**Emotion socialization among Chilean Mapuche and non-Mapuche parents and educators: The value of respect**

Enrique Riquelme, Dejah Oertwig & Amy Halberstadt

Recent theory and research considers ways in which emotions are constructed within and by families, relationships, and cultures (Barrett, 2017; Mesquita, 2010; Solomon, 1978). To understand more about the cultural construction of emotion, we studied the deep concepts about emotion in conjunction with life values among the Mapuche people of Southern Chile. Qualitative methods provide insight into participants’ understanding and organization of their lived experiences, without much imposition of ideas from researchers (Benitez et al., 2016; Doi, 1962; Parker et al., 2012). Specifically, we conducted semi-structured interviews with 17 Mapuche adults (5 elders, 12 mothers) and, using grounded theory practices, coded for themes. We then crosschecked emergent themes, with 5 new participants. To protect against researcher bias, we used three forms of saturation to confirm findings (Halberstadt et al., 2016). Results suggest: respect as a central emotion-related concept (including respect for the land, spirits of nature, and people); devaluing of the emotion of fear; gentle socialization process away from fear; and the transformative role of respect in attenuating fear. A second study of emotion networks with 30 Mapuche and non-Mapuche Chilean college students confirmed substantial departures from emotion concept theory in this geographical region. Specifically, students generated few “basic” emotions, but included many values and emotion terms not included in researcher-generated lists. We conclude with a discussion of “respect” as a central emotion in Chile, which may be important to consider in other cultures, and of semantic mapping of emotion concepts as an additional technique in the research toolbox.

**Parents’ socialization of ego-focused and other-focused emotions and children’s social competence in Chinese families**

Danhua Zhu, Zhuo Rachel Han & Julie C. Dunsmore

Emotion socialization processes are embedded within the cultural context (Eid & Diener, 2001). Parents’ independent and interdependent self-construals represent cultural values, and also vary within cultures. Parents with higher independent self-construals may value more ego-focused emotions, whereas parents with higher interdependent self-construals may value more other-focused emotions (Markus & Kitayama, 1991). The present study explored relations of parents’ cultural values (indexed through independent and interdependent self-construals) and supportive and non-supportive emotion socialization (ES) with children’s social competence (SC; higher prosocial behavior, lower internalizing and externalizing behavior) in Chinese families, focusing on ego- and other-focused positive and
negative emotions (pride, warmth, anger, shame/guilt). Participants were 75 parents (65 mothers, 10 fathers) of children in middle childhood (43 daughters, 32 sons; age range=7-11 years). Parents completed Chinese versions of standard questionnaires measuring self-construals, ES, and children's SC through an online survey. The ES questionnaires were modified to include pride, warmth, anger, and shame/guilt. Correlations showed that parents' independent and interdependent self-construals were positively related. Parents' interdependent self-construal was positively related to both supportive and non-supportive socialization of children's ego-focused emotions. With self-construals controlled, parents' non-supportive socialization of warmth was associated with children's poorer SC for all three indices (lower prosocial behavior, higher internalizing and externalizing behavior). Parents' supportive socialization of all four emotions was related to children's higher prosocial behavior. Findings indicate that independent and interdependent self-construals co-exist in Chinese parents, and suggest both differentiated and generalized relations of children's SC with parents' socialization of ego-focused and other-focused emotions.

Young Children's Self-Regulation and Emotion Knowledge: Evidence from the Adaptive Test of Emotion Knowledge

Katharina Voltmer & Maria von Salisch

Children's emotion knowledge and their self-regulative abilities are known to be correlated. Both are well established predictors of children's school success. The Adaptive Test of Emotion knowledge (ATEM) is a new measure of young children's emotion knowledge. In addition to items for happiness, sadness, anger, and fear, items for surprise and for disgust are also presented. The ATEM includes six components: Children are asked to recognize emotions in faces, in external situations (that evoke one or multiple emotions), from internal causes (desires, beliefs), and to differentiate between expressed and felt emotions. The ATEM is designed for three- to nine-year-old children, because item difficulties increase within and between components. Because of the ATEM’s adaptive design, it will not overstrain younger or bore older children. In the course of a collaborative intervention project we tested 284 three- to five-year old children (143 male, Mage= 49.83 month, sd= 7.22) with the ATEM and asked for teacher ratings of their attention regulation and inhibitory control on the Child Behavior Questionnaire. Additional data were used to calculate the factor structure and reliability with the software ConQuest. In a six-dimensional model (representing the six components), the items overall showed good to very good fit and selectivity and the EAP/PV reliabilities of the dimensions were acceptable to excellent. Correlations between the total score of emotion knowledge with attention regulation (r = .25, p=.002) and with inhibitory control (r = .28, p =.001) were significant. These results validate the ATEM and confirm previous research.
Examining Departures from Consensus among Gendered Affective Meanings in the US, Egypt and Morocco

Kelsey Mattingly

What is the role of stratification, power and inequality in shaping gendered emotional responses? Drawing on affect control theory (ACT), gendered affective meanings have been identified in ways that impact cultural formations of gendered stereotypes and political activity such as voting behavior. Research in ACT has found evidence for benevolent sexism on the evaluation dimension of gendered stereotypes for female traits in the US and Canada (Langford and MacKinnon 2000). In the US, representation of women in political positions at the state level leads to reduced emotional deflection when presented with female presidential candidates, which further impacts voting behavior (Boyle and Meyer 2018). Given these findings, this study provides a comparative extension into the role that stratification plays in shaping gendered emotional sentiments in the US, Egypt and Morocco. While Egypt and Morocco largely share cultural overlap, politically and economically the two countries provide rich comparison for the Middle East and North Africa (MENA) region, characteristic of low rates of women's economic and political participation (El Feki et al. 2017), though Morocco's gender quota in parliamentary elections has garnered attention (Darhour and Dahlerup 2013). Local contexts of stratification such as women's overall political representation, maternal employment, and paternal participation in traditionally feminine tasks appear to inform cultural emotions regarding women (El Feki et al. 2017). This study examines ways in which gendered affective sentiments converge and diverge in the US, Morocco and Egypt in regards to power and stratification through women's political leadership, educational engagement, and employment.

The Ceiling Effect of the Empowerment Experience

Andreas Schneider

Emotions can be defined by the affective difference between the identity that entered the event and the identity experience within the event. An event can be described at minimum as an actor emitting behavior towards another person. Events are situations in which contexts provide identities and behaviors. Just focusing on the potency dimension, empowerment emerges if an event generates an affective experience more powerful than the initial identity entered by the actor. For a successful stereotypical alpha male, events allowing the experience of empowerment will be so potent that they become outrageous, non-normative and often illegal. Celebrities currently portrait as sexual predators in the media are an example for this dilemma. One solution for high-achieving individuals to safely feel empowered is to use contexts that offer identities allowing for submission. Religion provides a context where believers submit and serve. Effects of worldly inequality tend to diminish. Taking the identity of a sinner one only needs a slightly powerful act to experience empowerment. The sexual context allows for similar options. Taking submissive identities of the BDSM spectrum, a successful business person can open up a wide range of highly empowering behavioral options. Utilizing contexts that provide submissive identities, powerful individuals avoid the ceiling effect of empowerment. Ironically, submission becomes power play. Using Charles Osgood's semantic differential ratings of affective
Comparing Methods and Affective Predictions from Affect Control Theory and the Stereotype Content Model

Trenton Mize

Affect Control Theory (ACT) and the Stereotype Content Model (SCM) share many common goals. Both index cultural sentiments and both make affective predictions based on shared cultural understandings. Despite both ACT and SCM’s shared ability to make affective predictions, these predictions have not yet been empirically compared. One difficulty of comparing the two models is the different methods of indexing cultural sentiment; ACT indexes cultural sentiments based on participants first order or “personal views”; SCM asks about generalized second order or “society’s views.” To assess whether these different methods influence EPA ratings, I collected data on 19 social groups. Figure 1 illustrates the main pattern of results for judgments of Evaluations; there are substantively large divergences between the two methods, especially for negatively viewed groups (results are of a similar magnitude for potency, activity, and SCM’s warmth and competence dimensions). Using the collected EPA ratings described above, simulations using ACT’s INTERACT suggest both that (1) ACT’s predicted emotions generally do not match the predicted emotions of SCM – especially for negatively viewed groups, and (2) that comparing predictions from EPA profiles assessed with traditional ACT vs SCM methods lead to different predicted emotions. To assess INTERACT’s affective predictions, I am currently finishing a vignette experiment soliciting participants (1) expected emotions, and (2) their expectations about the “average person’s” emotions when interacting with each of the 19 social groups. The results of this experiment will allow for a direct comparison of SCM and ACT’s predictions.

“Nothing to worry about”: Emotion Work, Contraceptive Responsibility, and Pregnancy Prevention among University Students

Abigail Nawrocki, Christie Sennott & Laurie James-Hawkins

Gendered feeling rules prescribe that women do the majority of emotion work in intimate relationships. Although the emotion work that occurs in marriages has been well documented, few studies have examined how partners manage emotion work in unmarried sexual relationships and how the division of emotional labor might contribute to gender inequality. Drawing on the theoretical concepts of feeling rules and gendered emotion work, we analyze 57 in-depth interviews with university-attending women to show how worry about pregnancy in unmarried heterosexual relationships constitutes a form of emotion work that is disproportionately done by women. Our findings suggest that gendered feeling rules prompt women to assume the bulk of the responsibility for pregnancy prevention, contraceptive...
management, and the accompanying emotion work. Specifically, we document the chronic nature of women's worry about pregnancy risk and prevention, which represents a significant amount of time and energy managing their emotions. Women worry about their own risks and their partners' emotional states, reflecting gendered feeling rules anchored in idealized femininity. This emotion work serves to perpetuate gendered feeling rules and expectations, resulting in inequality for women in sexual relationships.

A conjoint model of the relationships between the cognitive and the subjective components of emotions

* Florian Loeser, Pascal Pizelle & Anna Tcherkassof

Our objective is to build a probabilistic inference based model of the links between the cognitive and the subjective components of emotions. This model relies on three pioneering models of the appraisal theory of emotions (Frijda, Kuipers & ter Schure, 1989; Ellsworth & Scherer, 2005; Sander, Scherer & Grandjean, 2005). Participants (N = 164) indicated on a 5-points Likert scale the extent to which they felt a given emotion (i.e. subjective feeling) towards a product appraised in a given way (i.e. cognitive appraisal), such as “When I am facing a familiar product, I feel some joy”. Nine emotion labels (joy, surprise, hope, relief, fear, sadness, distress, frustration, disgust) and 8 cognitive appraisals (familiarity, expectedness, pleasantness, arousal, consistency, modifiability, power, legitimacy) were considered. From the collected data, a cognitive appraisal pattern was established for each emotion label. On average, it matched 68.6 % of the time the one predicted by each of the three pioneering models. For instance, Frijda et al's model best fits for sadness (.83), Ellsworth and Scherer's one for joy (.86), and Sander et al's for frustration (.86). This consistency allowed us to build a generic model that is robust enough to explain the relationships and to make predictions between the cognitive and the subjective components of emotions. In particular, bayesian inferences were carried out to assess the reversibility of the relationships between emotion components. Implications in terms of applications perspectives, notably for the design assessment of products, are discussed.

Executive function as a prediction of academic performance

Tatiana Pryakhina

The present study found correlations between academic performance and different variables (emotional and general intelligence). However, there are small number of studies, which tests the idea that the updating executive function can be a prediction of academic performance. Therefore, we decide to research the correlation between academic performance and updating executive function for Russian speaking students. We hypothesized that students, who have a higher high GPA, will cope better with the affective version of n-back task. Participants (n=65) performed affective and non-affective versions of n-back task, we used the pictures of different emotional faces (positive, negative). Then they answer the
questionnaire for emotional creativity (EC), emotional intelligence (EI) and general intelligence. There was statistically significant correlation between academic performance and general intelligence ($r = 0.28 \, p < 0.05$). The accuracy of participants' answers correlated with g-factor for both version n-back task ($r = 0.35 \, p < 0.01$ for emotional version and $r = 0.30 \, p < 0.05$ for non-affective version). EI and the updating executive function are predictions of general intelligence. The Empirical and theoretical implications are discussing. Subsequent research will focus on procedure of n-back task also.

**Social networks, stress and communication in older adults**

* Jasmine Rollings, Jerome Micheletta, Darren van Laar & Bridget Waller

Larger social networks are associated with better physical and mental health outcomes in later life. Meta-analytic findings indicate social networks grow in young adulthood, plateauing until old age when networks deplete. One of the proposed mechanisms for the protective power of social networks, is that social networks act as a buffer against stress. However, it is also possible that stress prevents the formation and maintenance of social networks through impacting on an individual's capacity for social interaction and communication. Research conducted with institutionalised older adults suggests poorer communicative ability is associated with smaller social support networks. Some social communication changes are a normal part of ageing, yet the degree of change could vary substantially between individuals. To explore this, we performed a secondary data analysis of the English Longitudinal Study of Ageing (ELSA). The analysis involved all archived data waves; which has a baseline (at wave 1) of 11,391 core participants, aged 50-100. Regression analyses were performed to determine the relationships between stress, communication and social networks, and multilevel modelling was conducted to establish the longitudinal change in older adults' social networks. Results are discussed in both the longitudinal and cross-sectional context, to better understand how individual differences in stress and communicative ability impact on the formation and maintenance of social bonds with others.

**Cross-Cultural Studies on Personal Experience of Sadness**

* Itziar Fernández, Pilar Carrera, Amparo Caballero & Dolores Muñoz

This research analyzed the relationship between a series of cultural dimensions, psychological factors, the emotional verbal and non-verbal expression, coping and subjective emotional reaction in sadness. First, we examined previous empirical studies on culture and emotional regulation. Second, we contrasted in two studies (see Scherer & Wallbott, 1994, Fernández et al., 2008) the influence of cultural indexes on reported expressive and coping emotional. Finally, we purposed group loyalty and competitive attitudes as mediator variables of cultural context. Results showed that subjects living in high power distance and collectivist cultures reported low verbal and non-verbal emotional expression, suppression coping and low subjective reactions. Also, high suppression coping, low verbal and non-verbal expression and low subjective intensity were associated, suggesting that emotional suppression facilitates the minimization of
sadness experience. The competitive attitudes mediate in high power distance and collectivist societies on the expression of sadness.

**Women are always warm? The role of restrictive emotion in gender role conflict**

Laura Villanueva-Moya & Francisca Expósito Jiménez

Work-family conflict appears by simultaneous pressure from family and work, which are considered incompatible, arising a role conflict. Empirical evidences have found gender differences in role conflict, in fact, women (vs. men) experience higher levels. Throughout the years, there has been an increase in women employed, nevertheless they still spend much time with family responsibilities. Previous studies have demonstrated that role conflict has some psychological consequences, as like distress, low well-being, and exhaustion. However, there is hardly any study about costs and profits valuation in respect of work and family, and the effect of role conflict in it. An experimental study (N = 90 women; M age = 34.37, SD age=3.55) analyzed (1) the valuation of costs and profits (individual, family and social level) in the work (vs. family); (2) how psychosocial factors (restrictive emotion, success, work-family conflict, and self-efficacy) correlated with this valuation. After a narrative manipulation (work vs. family), participants completed measures about valuation, Gender Role Conflict Scale (GRCS) (success, power, and competition; restrictive emotionality; conflict work-family) and Self-efficacy (EAG). The main results showed that women perceived more costs family level in work condition (vs. family). Relative to restrictive emotion, it was associated with lower levels of self-efficacy, higher levels of work-family conflict and success. Moreover, it was associated with more costs to family level too, it could be due to social roles which have been internalized by women, who should be warmth and not competitive.

**The relationship between emotion and religion: A review of quantitative and experimental studies**

Adriano da silva Costa & Wellington Zangari

There is a lack of empirical studies related to the connection between emotions and religion/spirituality. Although many systematic analysis shows a positive connection between religiosity/spirituality and well-being, there is little knowledge about the mechanisms of mediation. The objective of this work was review the quantitative and experimental studies that address the relation between emotion and religion/spirituality. Even though is not a systematic review, the result presents important new data about the subject as presented below. Religion plays a role in the experience of pleasant and unpleasant emotions, by its adherents of specific religions, as well as belief in the convenience of these emotions. There is evidence that the correlation between religion, spirituality, and well-being can be mediated by positive emotions. In some studies, self-transcendent positive emotions (admiration, inspiration, elevation, etc) have increased spirituality of the participant, especially for non religious people. Some studies show significant divergences in how atheists and religious people process emotional experiences. There is experimental evidence that the association of a sequence of negative events with the presence of a
merciful and omnipotent spiritual being induced less concern and sadness and greater hope in the future compared to the same events when presented alone. Other studies show that commitment in religious activities predicted less difficulty with regulation of emotion over time. Although the presented results demonstrate axes to follow the analysis on the subject, it is indispensable the execution of new researches to develop a consistent model to explain this relation between religiosity/spirituality and emotion.

**Social-Emotional Expertise: Interoceptive Awareness & Person Perception**

* Pietra T. Bruni & Jo-Anne Bachorowski

“Social-emotional expertise” (SEE) describes individual differences in the ease and adaptability of navigating social situations. SEE is conceptualized as consisting of a socioemotional “toolkit,” in which multiple, moderately correlated affect-related skills drive high-SEE individuals to excel at the social-emotional components of interactions. Two such affect-related skills are interoceptive awareness, defined as subjective awareness of inner feelings and the sense of the physiological condition of the body, and emotion-related person perception. This study is testing the relationships among interoceptive awareness, person perception, and self-reported SEE. To the extent that the range and flexibility of an individual's social-emotional skills are also tied to being ‘in tune’ with one's own physiological arousal and body state, it was hypothesized that high-SEE participants will have higher levels of interoceptive awareness and perform better on tasks that measure interpersonal perception. A community sample of sixty adults (30 males, 30 females), 18 years of age and older will be tested. Two tasks measure interoceptive awareness: a Heartbeat Tracking Task and a Respiratory Discrimination Task. Interpersonal perception was assessed via three established tasks: distinguishing Duchenne from non-Duchenne smiles, a trustworthy-untrustworthy categorization task, and the Interpersonal Perception Task. A multi-trait, multi-method approach was used to collect data, furthering our understanding of how individuals varying in social-emotional expertise process and maintain awareness of their own physiological state and interpersonal perception skills. Results will use structural equation modeling to identify latent variables associated with interoception and person perception, to further explore these constructs.

**Interpersonal emotion regulation contagion: reappraisal and distraction influences reappraisal and distraction of others**

* Ryota Kobayashi, Ken’ichiro Nakashima, Makoto Miyatani & Takashi Nakao

Previous studies have shown that a high tendency to ruminate, which is to engage in maladaptive emotion regulation, increases a roommate’s tendency to ruminate. This phenomenon is called “interpersonal emotion regulation contagion.” However, these studies did not focus on adaptive emotion regulation strategies, such as reappraisal and distraction. Reappraisal is re-interpreting the causes of negative emotions positively. Distraction is shifting attention from negative emotions or thoughts to non-negative content. The present study examined whether reappraisal and distraction have contagion effects
on the tendency of reappraisal and distraction of others by analyzing paired data. Sixty-six same-gender friend pairs participated in this study and completed emotion regulation scales that measure the tendency of reappraisal and distraction. We used the actor-partner interdependence model to analyze the paired data. With regard to reappraisal, the actor-partner interdependence model showed a significant actor effect ($\beta = .65$, $p < .001$) and a marginally significant partner effect ($\beta = .10$, $p = .086$). With regard to distraction, a significant actor effect ($\beta = .37$, $p < .001$) and a significant partner effect ($\beta = .17$, $p = .037$) were observed. These partner effects indicated that high tendency of reappraisal and distraction facilitates the tendency of reappraisal and distraction of pairs. The results of this study imply that interpersonal emotion regulation contagion occurs not only in rumination but also in reappraisal and distraction.

Clarifying the role of empathy in professional communication

Melissa Fuller, Elanor Kamans, Mark van Vuuren, Marca Wolfensberger & Menno de Jong

This research recounts our current study describing the role of empathy competence in the professional communication context, including the specific behaviors and cognitive/affective strategies used in professional situations. Results from 35+ interviews with high ranking communication professionals is presented, highlighting how empathy competence played a role in successful projects and projects which were not successful in reaching their communication goals. Results highlight if and how the presence/ lack of empathy skills played a role in a project’s success or failure. The outcome of this study is used to inform curricular developments for Bachelor and Master level professional Communication programs.

Vicarious emotions and behaviors of support and participation to the victims

Dolores Muñoz Caceres, Itziar Fernandez Sedano, Amparo Caballero Gonzalez & Pilar Carrera Levillain

After the attacks in Paris (Nov 13 2015), negative reactions in society are known, but positive reactions such as emotions of affection or empathy towards the victims appear (Páez et al, 2011; Vázquez y Hervás 2010) Both vicarious reactions can coexist and influence differentially on helping behavior (Batson, 1991; Lishner, Bastson, y Huss, 2012) Abstract thinking (vs. concrete) is associated with higher levels of satisfaction with life, happiness and well-being (Trope y Liberman (2003) Given their more positive emotional perspective we expect more help behaviors in abstract than in concrete ones. After 12 days of the attacks we measure positive affections towards the victims (empathic concern: affection, sympathy and tenderness) and personal discomfort (personal stress: anxiety, irritation and tension) (Empathic Response Questionnaire, Batson et al., 1987). We measured the construct level (BIF: Vallacher and Wegner, 1989) and measured four suportive behaviors to the victims: attend a demonstration, donate money, keep a minute of silence for the victims and pray for the victims (1 Never - 4 always) (N = 323 ss) The results show that the empathy towards the victims in Abstracts is higher ($M = 5.34$ (1.35) than
Concretes (MD=4.71 (1.70); F(1, 305)=13.10, p<.001, η p²=.04) There are no differences in stress. The correlation between abstraction and empathy is significative (r= 0.25, p<.001) The studied behaviors show greater and significant means in the Abstract group (vs. Concrete). These results allow us to advance in the study of empathy, supporting the theoretical difference between empathy and vicarious stress.

Effects of cardiac biofeedback on decision making in stroke patients

Séphora Minjoz, Sonia Pellissier, Mélody Mailliez, Thierry Bollon, Elena Ottaviani, Valérian Phalempin & Pascal Hot

Impairments in decision-making abilities have been reported in stroke patients. The emotion-imbued choice model (Lerner et al., 2015) provides an interesting theoretical framework to explain these impairments. This framework holds that anxiety is associated with a high level of uncertainty, which triggers deliberative information processing. This type of processing involves higher cognitive resources, since it relies on executive function and working memory. By contrast, heuristic processing relies more on emotional feedback. It has been frequently reported that heuristic processing leads participants to make more advantageous decisions in classic decision-making tasks. Here, we propose that the performances of stroke patients in complex decision-making tasks can be explained by their high level of anxiety, leading to deliberative processing. To examine this hypothesis, we aimed to demonstrate that reducing the level of uncertainty felt by stroke patients is associated with improved performance. For 3 weeks, 24 stroke patients practiced either daily cardiac biofeedback training to reduce their level of anxiety or pseudo-biofeedback training, which did not modify heart rate variability. Before (T0) and after training (T1), we assessed their performance on the Iowa Gambling Task (IGT), a classic sequential decision-making task. As expected, all participants showed weak performance on the IGT before the biofeedback training, which improved only for patients in the cardiac biofeedback training condition. This suggests that decision-making disorders in stroke patients are more the consequence of their poor information processing strategy than they are an impairment in their decision-making abilities.

Assessing Empathy over Time – When Viewers Consciously and Physiologically Share the Feelings of Characters

Freya Sukalla

Empathy is a multidimensional construct involving processes of both cognitive and affective perspective-taking (Davis, 1983; Niedenthal, Krauth-Gruber, & Ric, 2006). Within entertainment research empathic processes have always been regarded as one of the basic ingredients rendering stories more enjoyable and powerful (Igartua, 2010; Vorderer, Klimmt, & Ritterfeld, 2004). Empathy is most often assessed after exposure. However, narratives evolve over time and the characteristics of this “emotional flow” (Nabi & Green, 2015) might provide additional information for the explanation of viewing experiences and
outcomes not accessible to existing measures. To address this, we propose a new measure of empathic processing as the extent of correspondence between a viewer's psychophysiological activity indicative of emotional processing and the changing emotional state of the character. We conducted a one-factorial between-subject experiment, in which 78 participants (69.2% female; M age = 23.8, SD = 3.4) watched a 10-minute excerpt of the movie Helen (2009). Psychophysiological measures of emotional processing (skin conductance for arousal; muscle activity over the corrugator supercillii, zygomaticus major, and orbicularis oculi regions for valence) were recorded during viewing according to published standards (Potter & Bolls, 2012). To assess the changing emotional state of the main character we used continuous-response-measurements averaged over 12 students who had independently rated it from (0) very negative to (10) very positive. Cross-correlations between psychophysiological activity and the characters' emotional state will be used to indicate empathic processing. While exploratory, our study contributes new impulses to the examination of empathic processing during media exposure and in general.

**Emotions and school motivation**

Barbara Sini, Susanna Schmidt, Irene Mammarella, Enrica Donolato & Carla Tinti

It is known that motivation is fundamental for school Learning, and some research also shows a strong relation between learning motivation and emotions, suggesting that emotions are not only by-products of motivational processes, but a crucial factor that could enhance or undermine the motivations that are more efficient for learning achievement goals (e.g. Mega, Ronconi, & De Beni, 2014; Pekrun, 2006; Seifert, 1995). In particular, positive emotions felt in classroom seem to be related to intrinsic motivation which enhances students' efforts to initiate and persist in learning, while negative emotions could be related to extrinsic motivation or even to demotivation. Our work aims to offer an empirical contribution to the hypothesis that positive emotions experienced at school enhances intrinsic motivation to learning. To reach this aim, we created a questionnaire to collect data on learning motivations and emotions felt at school among 764 students aged between 9 and 14 years (students attending grades 4 to 8 of Italian compulsory school). Results show relations between positive emotions and intrinsic motivation and negative emotions and demotivation which are mediated by the academic self-concept (Schunk & Pajares, 2009), a personal factor that contributes to define the multidimensional construct of motivation. These results offer interesting suggestions in the perspective of interventions aimed to enhance the students’ wellbeing in class and the teachers’ competences in emotional support for students.

**Race, Multiple Identities, and Complex Emotions**

Cerenity E. Collins & Dawn T. Robinson

Affect control theory based research supports the link between identity performances and emotion. Structural symbolic interactionists argue that mixed emotions should arise from interactions in which multiple, competing identities are salient (Smith-Lovin 2007). In the context of race and ethnicity in the
United States, W.E.B. DuBois (1903) argued that the experience of racialization creates a “twoness” in African Americans, which involves the splitting of their self-concepts into competing selves: a black self and an “American” self-defined by dominant, white American culture. Consequently, black people interacting with members of the dominant culture on a regular basis develop what DuBois calls “second sight”: an ability to see from the perspective of both cultures and to understand and respond to dominant cultural expectations and meanings. This paper synthesizes these three lines of argument and uses structural features of the social situation (e.g., density and bridging in social networks, racial composition of the interactional environment, the degree to which an organizational hierarchy is linked to race) to predict expected degree of emotion complexity across situations. We argue that DuBois’ three proposed responses to racialization can be linked to more general responses to processing conflicting identities in parallel – compartmentalization, amalgamation, and prioritization. We develop predictions linking these processes to emotion complexity and investigate these predictions with data from (1) a nationally representative sample and (2) a quasi-representative sample of U.S. adults. We then use affect control theory based computer simulations to further explore predictions about the complexity of emotions within different interactional contexts.

Predicting Emotional Responses to Experienced Racism

Malissa Alinor, ⭐ Cerenity Collins & Dawn Robinson

Experienced and perceived racial discrimination have been linked to negative outcomes such as increased stress and mental health challenges (Williams et al. 1997; Deitch et al. 2003). Considerable research supports the idea that negative emotion produced in social interactions may serve as a pathway to these health disparities. Some of this research on emotional responses to discrimination is experimental (e.g., Jamieson et al. 2013), but much of it relies on accounts that capture emotions after individuals have processed an event (Wingfield 2010; Williams et al. 1997). To better theorize about how negative emotion arises from structural features of discrimination experiences, we make use of Affect Control Theory’s (ACT) mathematical model linking emotion to social interaction. ACT’s emotion model links characteristic, structural, and consequent emotions to identities, role relations, and interactions, respectively. Using a quasi-representative sample of African American adults, we survey affective sentiments associated with a battery of behaviors and identities relevant to experiences of racial discrimination. We then conduct ACT-based simulations that systematically vary the valence, dominance and arousal of target and perpetrator identities, as well as characteristics of the discrimination experience, to investigate how the identity of the target, the identity of the perpetrator, and the nature of the discriminatory behavior shape theoretically predicted emotional responses to experienced racism. We conclude with (1) testable predictions linking the type of discrimination experience to specific emotions and (2) a set of coping strategies for managing emotion in response to experienced racism that are implied by our simulation results.
Interpersonal dynamics of emotion regulation in somatic symptom disorders

Emine Okur Güney, Heribert Sattel, Daniela Cardone, Arcangelo Merla, Michael Witthöft & Peter Henningsen

Background: Somatic symptom disorders (SSD) are characterized by distressing bodily disturbances causing significant dysfunction. Excessive thoughts, feelings and behaviors accompany the symptoms. A substantial literature confirms the link between emotion regulation disturbances and SSD. However, existing studies have usually adopted individual-based, self-report or computerized paradigms. Aim: This study aims to explore prevailing patterns in patients’ emotion regulation processes during their real-time interpersonal interactions. Our approach entails examination of the relationship between emotion constituents at intra- and inter-personal levels. Method: 16 healthy couples and 15 couples with a patient with SSD (Ntotal=62) participated in a dyadic interaction task, which consisted of a baseline, anger and relaxation phase. During all three phases, partners’ physiological parameters (ECG, EDA and facial thermal images) were measured simultaneously. Following each phase, participants rated their own feelings (valence, arousal & dominance) and their perceptions of their partners’ feelings. Results: Provisional findings showed that, compared to healthy controls, patients’ ability to recognize their partners’ emotional valence was poorer at baseline but greater at the anger phase. Patients also assumed their emotional arousal at the anger phase to be similar to their partners’ arousal more than healthy controls. The concordance between the partners’ subjective emotional arousal at the anger phase was significant only in the healthy group, however, in the negative direction, indicating a complementary arousal regulation. The average heart rate of the patients was greater at the anger and relaxation phases compared to only their partners. Physiological time-series data analysis is currently in progress.

Emotion regulation and mixed feelings in a population of various Body Mass Indexes

Jeanne Richard, Catherine Audrin, David Sander & Géraldine Coppin

Emotion regulation has been studied in the context of obesity and was found to influence food intake. Besides, food stimuli can elicit mixed feelings (i.e. simultaneous feelings of both pleasant and unpleasant emotions) when they trigger conflict between pleasure and health-related goals. However, our understanding of the affective processes involved in overeating and obesity remains incomplete. The aim of the present study was therefore to investigate emotion regulation and mixed feelings in a population of various Body Mass Indexes (underweight, healthy-weight, overweight and obese). Compared to the healthy-weight controls, we expected obese participants to report more mixed feelings and to have lower emotion regulation performances. We also wanted to explore the underweight and overweight groups. Participants rated positive, negative and mixed film clips on amusement and repulsion. Half of them were instructed to watch the film clips (watch condition), while the others were asked to reinterpret the content of the film clips (regulate condition). As expected, obese individuals reported more mixed feelings than the healthy-weight controls in the watch condition. They did so not only for the mixed, but also for the negative film clips. However, they did not present worse emotion regulation performances. Besides, our results did not highlight any difference for the underweight nor for the overweight group, compared to the controls. These results encourage further research on the effects of BMI on mixed
feelings and emotion regulation.

**The role of habitual and goal-directed processes in instrumental learning with aversive outcomes**

*Eike Kofi Buabang, Tom Smeets, Jan De Houwer, Oliver T. Wolf, Yannick Boddez & Agnes Moors*

Stress is associated with various suboptimal behaviors, such as poor dietary choices and smoking. Recent studies suggest that stress can impair the ability to engage in goal-directed behavior so that people have to rely on habitual behavior. Based on these findings, suboptimal behavior under stress is often seen as habitual. Support for this idea comes from a study by Schwabe and Wolf (2009), in which stressed participants continued to perform a learned instrumental behavior leading to food, even after the food was devalued with a satiation procedure. As an alternative explanation for these findings, it could be argued that if behavior is insensitive to the devaluation of one goal (e.g., goal to consume a certain food), which indicates that it is not driven by this goal, it could still be driven by another goal (e.g., stress-regulation). Although stressed participants ate the food to satiety, it is still palatable and may thus be seen as a way to regulate stress. We tested whether the results of the study by Schwabe and Wolf (2009) would replicate with a stronger devaluation procedure (i.e., taste aversion), which makes the food unpalatable, so that the strategy to reduce stress by eating palatable food becomes unavailable. We predicted that a stronger devaluation leads to a change in behavior in stressed participants. In other words, if the outcome becomes aversive, stressed participants will not continue to perform the instrumental action leading to the food, indicating goal-directed behavior under stress.

**Dispositional Compassion Reflects Differences in Social Utility**

*Joseph Ocampo & Dacher Keltner*

Emotions are powerful drivers of social decisions, but there is not much work bridging the gap between emotion science and judgment and decision-making (JDM) research. Using mathematical functions from JDM that quantify satisfaction in terms of outcomes for the self and other (social utility), the current work demonstrates that dispositional compassion correlates with differences in the social utility function. In a correlational study, Amazon Mturk workers (N = 180) completed self-report assessments of emotion dispositions, current positive and negative affect, personality and prosociality. Participants then completed a task used by Loewenstein et al (1989) in which they stated their preferences on a likert scale regarding monetary outcomes between themselves and a hypothetical neighbor (e.g., SELF gains $300, OTHER gains $400). The preference ratings of each participant was used to calculate coefficients estimating utility for money gained for the self, relative advantage (SELF>OTHER payout), and relative disadvantage (SELF<OTHER payout). In separate regressions with compassion as the predictor, compassion did not predict utility for self (beta = -.12, p=.11) or utility of relative disadvantage (beta = -.07, p = .38), but did predict decreased utility for relative advantage (beta = -.29, p < .01). When controlling for prosociality using multiple regression, the effect of compassion remains (beta = -.18, p =
.01). Dispositional compassion may reflect underlying differences in social utility judgments even in the absence of suffering.

Can the Appraisal Tendency Framework explain differential effects of positive emotions on sequential decision making?

Thierry Bollon, Mélody Mailliez & Pascal Hot

In sequential decision making, the processing of emotional cues associated with previous positive and negative outcomes influences subsequent decisions. For example, participants take fewer risky decisions when they have the results of their decisions than they do not. A significant result of the last ten years is that the processing of emotional cues can be modulated by emotions induced prior to the sequential decision-making task. Emotions associated with a high degree of certainty would trigger a heuristic information processing while emotions associated with a high degree of uncertainty would trigger a deliberative information processing. In contrast to deliberative processing, heuristic processing would allow to process emotional cues. However, the modulation of the processing of emotional cues has been mainly investigated through the induction of negative emotions and in paradigms with a mathematical more advantageous decision. We sought to determine whether the modulation of the processing of emotional cues could be also found by the induction of positive emotions (Study 1) even when no decision is mathematically more advantageous (Study 2). In these studies, participants performed a sequential decision-making task under risk in which the processing of emotional cues is necessary to make advantageous decisions. Two positive emotions (joy vs. hope) were induced to trigger heuristic or deliberative processing (respectively). Results suggest that happy participants make more advantageous decisions than hopeful participants. Taken as a whole, these studies represent the first to indicate that the treatment of emotions cues modulates sequential decision making, even when positive emotions are induced.

Emotion generation and differentiation – An evidence accumulation modeling approach

Ayelet Itzhak Raz & Nachshon Meiran

The ability of one to become aware of own emotions (i.e. to feel) is critical for decision making, interpersonal relations and communication and mental health. We propose that feeling generation is analogous to a perceptual act, in which the individual accumulates evidence (such as facial and bodily expressions, action-thought tendencies etc.) which finally make her/him become aware of (or feel) these emotions. This idea was tested in an experiment that compared an emotional task to a perceptual one. In the emotional task, participants had to indicate by a key press which emotion they feel most strongly when watching an emotion eliciting picture. In the perceptual task, they decided whether a face is of a male or a female. Results were analyzed using the linear ballistic accumulation (LBA) model. Preliminary results indicate that the two tasks are characterized by equal rate of evidence accumulation, though they
differed in the starting point variability (greater in the emotional task, possibly reflecting greater carryover from the preceding trial), and the amount of evidence needed to reach a decision (greater in the emotional task).

POSTERS 1  ⏰ July 11th  ⌚ 12:30—14:00  ⬤ Main hall  # 31

Translation and psychometric evaluation of the Regulation Emotion Systems Survey - Italian version

Anna Maria Meneghini, Daiana Colledani, Gaia Carbon, Kalee De France & Tom Hollenstein

The Regulation of Emotion System Survey (RESS) is a 38-item, self-report questionnaire that aims to assess on a common scale the individual's propensity to use six emotional strategies (Distraction, Rumination, Reappraisal, Suppression, Engagement, Arousal Control). It has been demonstrated to be a valid tool to assess multiple regulation strategies to down-regulate personal experiences of negative emotions (De France & Hollenstein, 2017). De France & Hollenstein (2017) also identified 3 different profiles relating to the emotion regulation repertoires: Average, Suppression Propensity and Engagement Propensity. The aim of this study was to develop an Italian version of the RESS. The items were translated into Italian and the questionnaire was administrated to 250 participants (mean age = 32.29; SD = 11.36; males 55.3%). A CFA was run to verify the factorial structure which emerged from the English version. Furthermore, an abbreviated version (24 items selected from the original 38) was tested by means of a CFA. The results revealed that this version approximates the factors obtained with the full-length version. Finally, a latent profile analysis revealed the same emotion regulation repertoires as the 38 item version in English. The structure of the RESS was thus confirmed for both the long and short versions of the Italian questionnaire. Moreover, the consistency of the 3 repertoire profiles was confirmed. These repertoires emerged from data collected with a sample that, compared to the participants of the two studies by De France & Hollenstein (2017), was older and more gender balanced.

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Data Knows You: Detecting Periodic Stress via Social Network

Liang Zhao, Qi Li, Feng Yu & Ling Feng

Psychological stress detection via social media (micro-blog) is an emerging research topic in computing psychology, as it addresses one of the most common mental health issues in such high-pace and stressful society. Beyond simply detecting the stress category and level expressed in a single tweet, stress patterns, for example, periodic stress during a given time interval, often reveal high-level status of the user’s suffering stress and hence make more sense. In this paper, we try to discover the periodicity of adolescent stress. Investigating fine-grained stressors, we first decompose the teenager’s general stress series, and leverage a density-based clustering method to smooth discrete stress series points into the sequence of alternative stress/non-stress intervals. Calculating the similarity between such intervals, the stress periodicity is finally identified by extending the symbol based DTW distance to sequences of stress/non-stress intervals with the WARP algorithm. To the best of our knowledge, this is the first work comprehensively defining and then detecting stress periodicity. Sufficient experiments upon real user
study were conducted to evaluate both efficiency and effectiveness of our approach. 36 high school students were invited to attend the user study, providing their tweets as well as the annotations of their real periodic stress as the ground truth. The experimental results proved the feasibility of both our stress periodicity definition and the detection framework, with the accuracy of over 80% and the period fluctuation less than 25% in average.

**Alexithymia: the missing link between autism and anorexia?**

Laura Vuillier & Rachel Moseley

Autism is diagnosed in 37% of those with eating disorders as compared to 1% in the general population, and such co-occurrence is associated with poorer treatment outcomes (Westwood et al, 2016). While research has examined potential shared genetic vulnerabilities, a thus-far neglected possibility is that alexithymia – the inability to identify and describe emotions links the two conditions and increases the risk of their comorbidity, since it is often present in both. We tested this hypothesis in a group of healthy 257 university students (n=59 males; mean age = 21.3) using standardised questionnaires to measure alexithymia (TAS, Bagby, Parker, & Taylor, 1994), autistic traits (AQ, Baron-Cohen, Wheelwright, Skinner, Martin, & Clubley, 2001) and eating disordered behaviours (EAT-26, Garner & Garfinkel, 1979).

As in previous research, autistic traits significantly predicted eating disorder symptoms (total effect: b=.30, t(255)=3.25 p=.0013), and alexithymia significantly predicted both eating disorder symptoms and autistic traits (b=.15, t(254)=2.74, p=.0065, and b=.70, t(255)=6.73, p<.0001 respectively). However, most interestingly, we found that the relationship between autistic traits and the eating disordered symptoms was reduced and at the cusp of significance after controlling for alexithymia (b=.19, t(254)=1.96, p=.0501), suggesting that alexithymia mediates the oft-reported relationship between autism and eating disorders. While our results need to be replicated in clinical populations, they suggest that alexithymia may be a risk factor which, in combination with autistic traits or diagnosed autism, could increase vulnerability to eating disorders and which should be accounted for to improve treatment outcomes.

**Is facial expression in response to gossip motivated by surprise or context?**

Bronagh Allison & Gary McKeown

Exchanging social information or gossip helps to establish and maintain relationships and reflects the interests we share with others. Exchanging gossip about mutual acquaintances or celebrities is a powerful tool for developing social bonds. Consequently, this activity appears to involve a rich repertoire of associated facial expressions, the principal one of which we have labelled the gossip response face. The gossip response face follows the same facial action coding system pattern as the classic Ekman “surprise” face. This research considers the appearance of this classic “surprise” face in the social context of gossip. Using audio-visual clips from five dyads of friends and acquaintances in natural conversation taken from the ILHAIRE Laughter Database, we isolated instances of the “surprise” face as it occurred in relation to
social information. The gossip response face is used as an anchor to explore the range of facial expressions that come before and after, that is, expressions that appear to convey components of moral judgement and reputation management. While the gossip face appears to occur in response to a surprising revelation, we will argue that the social motivation results from more performative motivations rather than serving as an index of the felt level of surprise. We will also present the range of facial expressions that occur within quick succession of the gossip response face and the ratings of interpretations of the meaning that these expressions induce outside the context in which they occur.

Can two be better than one? Exploring the influence of multiple stressors on decision-making

Paige Alenick & Yochi Cohen-Charash

Although stress has been found to impair cognition, we propose that sometimes, stress can improve it. Here, we suggest that the combination of multiple stressors might improve, rather than harm, decision-making. Adopting a functional-contextual approach to stress and relying on conservation of resources and appraisal theories, we present a model examining when and how multiple stressors influence (a) motivation and (b) the availability of emotional and cognitive resources, which, in turn, influence behavior. As an example, we discuss how multiple stressors influence fair decision-making. We claim that for already stressed individuals, accountability, the need to justify one's decision-making process, is another stressor influencing both the motivation to behave fairly and level of the decision-maker's resources. In Hobfoll's theory, people strive to retain, protect, and increase resources. One way to retain resources is to appraise stressors as a challenge, rather than a hindrance. We propose that if stressed individuals appraise accountability as a challenge, then accountability increases motivation, which augments the resources necessary for accurate decision-making, resulting in fair behavior. However, if appraised as a hindrance, accountability is perceived as limiting one's autonomy, hence reducing decision-makers' motivation to enact the resources needed to behave justly, resulting in unfair behavior. We discuss several factors that can influence how accountability is appraised and how the resulting motivations and resources influence decision-making. Considering the combined influence of multiple stressors on cognitive functions and behavior is an understudied but crucial relation to understand as individuals do not experience stressors in isolation, especially in high-stakes situations.

Makeup Who You Are: Self-Expression Enhances Feelings of Authenticity When Effort is Put Toward Appearance

Rosanna Smith, Michelle Van Dellen & Lan Anh Ton

People spend significant time and money on products and services that enhance their appearance. However, recent work has shown that while having an attractive appearance has benefits, people who invest effort in their appearance can be judged negatively as they are seen as misrepresenting their true self. In this article, we explore how reframing beauty work as self-expression can actually enhance others’
perceptions of authenticity, and further, enhance one's own feelings of authenticity after investing effort into one's appearance. Specifically, we propose that while effortful beauty routines can be seen as a way to disguise the true self, they can also be seen as a vehicle for people to express their true self. This is driven by two underlying notions of authenticity: essentialist (the true self is natural and innate) versus existentialist (the true self is in one's choices and decisions). We find that people tend to default to seeing the true self in essentialist terms, thus, the natural, unadulterated body is seen as the most authentic, and, subsequently, beauty work hurts perceptions and feelings of authenticity. However, when an individual's true self is framed in existentialist terms via self-expression, the chosen appearance is seen (and is experienced) as more authentic and, subsequently, beauty work enhances perceptions and feelings of authenticity. These findings hold theoretical implications for the role of felt authenticity in consumer behavior and practical implications for companies that focus on beauty and personal care products.

Multidimensional stress prevention program's effects on mood, affective states and emotion regulation among university students

Romina Evelyn Recabarren, Claudie Gaillard, Matthias Guillod & Chantal Martin Sölch

University students often report depression, anxiety, substance abuse, sleep- and eating problems, as well as less use of adaptive emotion regulation strategies, decreased quality of life, and emotional well-being. Cognitive, behavioral, and mindfulness interventions focusing on stress prevention among university students have proved effective. However, the majority of these programs are based on one way to cope with stress. The aim of this study was to investigate the impact of a multidimensional stress prevention program on mood, affective states and emotion regulation in university students’ daily life. A randomized controlled design was used to compare pre - and post - intervention data in two groups. Sixty-four healthy university students were randomly allocated in an intervention group and a wait-list control group. The intervention group participated in an eight-week stress prevention program integrating cognitive-behavioral and mindfulness-based exercises, emotion regulation strategies, social skills and assertiveness activities. Before and after the participation on the program, both groups completed a one-week ambulatory assessment (5 times per day), evaluating their mood (valence, calmness and energetic arousal), affective states (positive and negative), and emotion regulation strategies (reappraisal and expressive suppression). As expected, results showed significant increases in the positive affects, in the valence, but not in the calmness or energetic arousal dimensions of mood, and also significant decreases of expressive suppression in the intervention group, compared to the control group (all p values < 0.05). These findings suggest short-term effects of our multidimensional stress prevention program on affects, mood and emotion regulation strategies in daily life.
The factorial structure of the Cognitive Emotion Regulation Questionnaire in Greek

- Maria Markou, Myria Ioannou, Stephanie Stephanou & Panayiotis Stavrinides

The Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski & Kraij, 2007) is a questionnaire that assesses adaptive and maladaptive emotion regulation strategies, including self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, catastrophizing, other-blame. Even though this is one of the most commonly used questionnaires for research purposes for the assessment of emotion regulation, its factorial structure in Greek language has not been confirmed yet. The present study examines a confirmatory factor analysis for the structure of the CERQ, using Mplus 7. The model fit is evaluated using the fit indices of chi square, CFI, TLI and RMSEA (90% CI). The parsimony of the final model is determined based on the BIC and the ECVI. The sample of the questionnaire consisted of approximately 520 adolescents aged 15-18 years old in Cyprus. The participants completed the CERQ and a number of other constructs to examine the discriminant and construct validity of the cognitive emotion regulation (e.g., cognitive disengagement, mindfulness, psychopathology). The sample completed the questionnaire twice, in order to examine test and retest reliability. The analyses are currently being conducted. The findings of the present study will provide further information of the factorial structure of CERQ in general and of CERQ in Greek specifically, so that this measure can constitute a valid and reliable measure to be used in studies investigating cognitive emotion regulation in Greek speaking populations.

Hate as a Distinct Emotion

- Ashley Goodvin, Ira Roseman & Amanda Steele

Many theories indicate that particular emotions have characteristics that distinguish them from other emotions in human beings. However, limited research has been done to determine the distinguishing characteristics of hate. This study aimed to discover if the characteristics of hate are derived from the characteristics of anger, contempt, or dislike, or if hate is a standalone emotion with its own characteristics. The hypothesized characteristics of hate that this study focused on were eliciting events; antecedent appraisals; and the component phenomenology, expressions, actions, action tendencies, and goals that are part of the emotion. Participants were recruited online from undergraduate students at an urban U.S. public university and from Amazon Mechanical Turk to describe an experience of intense hate, intense anger, intense dislike, or intense contempt, and then fill out questionnaire items assessing the presence of 29 hypothesized characteristics. A MANOVA found that there are differences in characteristics between contempt, anger, dislike, and hate across responses. Contrast t-tests evaluated specific predictions about which characteristics were highest in which emotions, and multiple regressions assessed which characteristics for hate covaried most with each emotion. We found that several hypothesized characteristics, including thinking that someone is evil, fantasizing about bad things happening to the person, and wanting the person out of one’s life were most characteristic of hate experiences. This offers evidence that hate is a distinct emotion. Knowing the characteristics of hate can help identify instances of this emotion and implement interventions before violence is committed.
How to assess the frequency and efficacy of emotion regulation techniques? Validation of the ANPERT

Stéphanie Haymoz, Philippe Genoud, Chantal Martin Soelch & Michaël Reicherts

The poster presents the development and the validation of the ANPERT inventory (Assessment of Negative and Positive Emotion Regulation Techniques; Haymoz, Genoud, & Reicherts, submitted) and some examples of its application. The ANPERT aims to assess strategies of emotion regulation and refers to a broad spectrum of behavioral, bodily, cognitive, and social emotion regulation strategies which can be used to modify negative and positive affective states. These registers are: actively influencing or avoiding the situation, searching or suppressing information, changing initial intentions, accepting the situation, reframing, auto-verbalizing, referring to social support, intaking substances, doing physical activity, and relaxing. Each scale is made of 3 to 5 items, which use a double assessment: frequency and perceived efficacy of the regulation behavior. Psychometric proprieties are based on a non-clinical sample of 495 adults. The observed Cronbach's alphas indicate satisfying reliability for almost all scales and confirmatory factor analyses yield a clear model structure, presenting good model fit indices.

Considering the importance of emotion regulation in mental and physical health, it seems central to benefit from an instrument which is able to describe individual regulation profiles on the basis of operationally described emotion regulation strategies, offering therefore the possibility of developing adapted training modules.
**Item Response Theory Analysis of the Social-Emotional Expertise Scale**

Madison Hooper, Pietra Bruni, Marcus Wild & Jo-Anne Bachorowski

Item response theory (IRT) offers a set of psychometric models for developing and refining psychological measures, administering scales, and scaling individual differences. Despite the popularity of IRT in the assessment of achievement and aptitude, its use in personality and psychopathology measurement is rare. This study presents an application of IRT to the 25-item Social-Emotional Expertise (SEE) Scale (McBrien, Wild, & Bachorowski, 2018). SEE represents a collection of cognitive abilities related to social interaction and emphasizes the timing and synchrony of behaviors that contribute to overall social-emotional ability. Traditional psychometrics, exploratory factor analysis (EFA), and IRT methods were employed to explore dimensionality and item functioning of the SEE Scale. Although the measure captures a broad range of social-emotional functioning (e.g., expressivity and adaptability), bifactor EFA demonstrated that the common variance is overwhelmingly explained by a single general factor. Given that the SEE items contain ordered categorical responses, Samejima’s (1969) graded-response model (GRM) was used to estimate item parameters. We also computed category response curves, operating characteristic curves, item information, and test information. The SEE scale appears to differentiate among individuals best in the middle of the trait range, indicating that measurement precision is highest for individuals with average levels of SEE. The results will further our understanding of SEE and provide insight on how to best scale individuals on their ability to navigate social situations. These results will also inform future studies that aim to assess SEE in clinical populations in which social behaviors are impaired, such as autism spectrum disorder.

**The perceived social power of expressers’ of pride as a function of reactive emotions**

Moshe Goren, Shlomo Hareli & Ursula Hess

Emotion expressions are central to everyday social communication. The emotion expressions of others can provide us with information about their characteristics. One important inference that observers deduce from others’ emotional reactions is the social power of the expresser. Specifically, observers perceive expressers of anger and pride as higher in dominance, social status, and competence than those who express sadness or shame. Yet, this research focused exclusively on the perception of the other person irrespective of how others, in turn, react to this expression. Yet, such reactions are an important part of any real-life interaction. The present poster will present preliminary evidence that perceptions associated with social power based on expressions of pride are to some degree affected by the emotional reactions of the addressees of these emotions. These responses are perceived as signals of confirmation or disconfirmation of the "claim" suggested by the expression of pride and hence shape observers' impressions of the social power of the prideful person.
Emotions and Coping Strategies during Breast Cancer in Latina Women

Anabel Castillo, Jennifer Mendiola & Jitske Tiemensma

Research suggests that emotionally expressive coping predicts psychological and physical adjustment to breast cancer (BC; Annette et al., 2000). Some coping strategies may be more advantageous (e.g., emotional expression; Yoo, et al., 2014) than others (e.g. behavioral disengagement; Culver, et al., 2004). Latinas with BC have a higher risk of mortality and are underrepresented in BC studies (Yoo et al., 2014). Thus, it is especially important to understand how these particular women uniquely experience and cope with BC. We conducted focus groups among Latina breast cancer (BC) survivors (N=23). The aim was to identify how Latina women cope with BC treatment, what emotions arose during their treatment, and how they appraise medical barriers. Specific emotions of anger and fear were commonly identified but related to different contexts. Prior work has examined negative emotions in an intrapersonal context of illness (Culver et al., 2004), however, the results from our qualitative study suggest that fear may also share an interpersonal context. For example, fear was expressed towards death as well as for family suffering but anger was expressed towards BC specifically. Additionally, family support and spirituality were frequently cited as two positive coping resources. Latina women also commonly cited that they suppressed negative emotions. Emotion suppression has been associated with heightened severity of symptoms (Schlatter & Cameron, 2010). The function of suppressing emotions should be considered in the context of Latino culture. Examples of coping strategies and appraisals of medical barriers in relation to the frequent emotions expressed will be discussed.

Identifying Emotional Mediators that Link Experiences of Parental Hostility and Overindulgence to Engagement in Infidelity

Leslie Gordon Simons & Ronald L. Simons

Infidelity, or extradyadic sex, has been consistently linked to significant problems across a wide variety of domains. Infidelity can lead to emotional distress and has been linked to lower relationship happiness and has been found to be a major cause of relationship termination among dating and married couples. Despite these problematic outcomes, research suggests infidelity is relatively common. This is especially true among young adults in dating relationships. While a profusion of studies have examined the consequences of having a concurrent sex partner while in an exclusive relationship, the antecedents of such behavior, particularly those at the individual vs dyadic level, have received less attention. The current study utilizes survey data from a sample of 1500 college students to examine the association between interpersonal processes in the family of origin and subsequent extradyadic sex. Further, we identify behavioral and emotional mediators that explain the link between family processes and extradyadic sex. Results indicate that having been the recipient of hostile, explosive parenting during childhood/adolescence is positively related to engaging in extradyadic sex. The same was true for the effect of overindulgent parenting. Unrestricted sociosexuality, impulsivity and feelings of entitlement were identified as linking mechanisms between parenting processes and extradyadic sex. Our model explains 26% of the variance in sexual behavior outside of a committed relationship. This suggests that the emotional tenor of parent-child relationships contributes to the development of emotions and
attitudes that are associated with subsequently engaging in extradyadic sexual behavior.

**Priming pride promotes delay of gratification**

* Einav Shimoni, Andrea Berger & Tal Eyal

Distinct positive emotions signal adherence to specific goals: Pride signals the pursuit of long-term goals, while joy signals the pursuit of immediate desires. We therefore propose that when children are primed with a positive emotion, without actually feeling it, they are likely to pursue the goal that evokes the emotion. Because delaying gratification involves resisting an immediate desire for the sake of a long-term goal, we predicted that, when primed with pride children would delay gratification more often than when primed with joy. In two experiments, we tested 8-year-olds' ability to delay gratification, using a delay discounting task. We primed an emotion (pride\joy) by having children either imagine a future emotional event (Experiment 1) or listen to another child’s emotional experience (Experiment 2). Consistent with our prediction, children primed with pride showed less delay discounting than children who were primed with joy and children in a control condition, demonstrating enhanced delay of gratification. These results suggest that from a young age, simply thinking about an emotion without actually experiencing it serves as an emotional goal prime. When the goal to feel an emotion is activated, it subsequently leads to behaviors that are likely to evoke the emotion.
Do punsters deserve the ill will and disrespect that can come their way?

Richard Smith, Charles Hoogland, Edward Brown & Sung Hee Kim

It is often claimed that puns are a polarizing form of humor in the sense that some people like them, whereas others dislike them, often intensely, and respond with strong negative emotions to both puns and to the punster. Indeed, some people seem to love any and all puns (e.g., Thomas Hood, “. . .there's a double pleasure therein . . . a double meaning shows double sense”) while others verge on wanting puns outlawed and punsters punished (e.g., Samuel Johnson, “Puns are the last refuge of the witless”). How are people who like puns and who like telling them actually different from people who dislike puns and who avoid telling them? In two studies, participants reported their own attitudes towards puns and punsters, in addition to giving their attitudinal and affective responses to a range of puns, some novel, others more pedestrian. They also completed a group of standard personality measures. Participants self-identifying as pun-lovers and adept punsters, and who tended to like the puns that they responded to, were associated with a desirable profile of personality characteristics, as they were more likely to report being decisive (i.e., functionally impulsive), open-minded, imaginative, and agreeable. Self-reported punning ability also correlated significantly with an objective measure of intelligence. However, self-identifying punsters were also higher in narcissism, though of the type usually associated with greater psychological health and agency. Overall, the findings suggest that there are more reasons to feel positively toward punsters than to feel negatively.

Is Interpersonal Dislike a Discrete Emotion?

Amanda Steele, Ira Roseman & Ashley Goodvin

Discrete emotions can be conceptualized as being distinguishable by unique combinations of appraisal determinants and response components. Negative emotions such as anger and contempt have been shown to be distinct emotions, and it is possible that hatred differs from each of them. However, one may dislike someone without feeling angry or contemptuous toward the person. This study aimed to determine if interpersonal dislike is indeed distinct from anger, contempt, and hatred. To test this possibility, online questionnaires asked participants to think of someone who is currently making them feel dislike, anger, contempt or hatred, and answer questions assessing (a) the causes of their emotion, and (b) what they were currently feeling, thinking, feeling like doing, actually doing, and wanting. ANOVAs with linear contrasts, as well as multiple regressions, were used to test whether particular antecedents and responses were differentially characteristic of particular emotions. Some support was found for dislike as a discrete emotion: interpersonal avoidance responses were rated higher in dislike than in experiences of anger, contempt, and hatred. Dislike was also a less negative emotion. These results suggest that disliking someone is indeed different from being angry at them, contemptuous of them, or hating them. These findings have important social applications, since disliked others were perceived as having some good qualities and were more forgivable, and this could facilitate preservation of relationships. Finding a distinct pattern for dislike adds support for discrete emotion theory, and certain emotions being natural kinds.
Compassion Fatigue, Emotional Regulation, and the Stress Process Model

Richard Adams

People who provide care to others often face stressful conditions as they work with traumatized clients. Charles Figley introduced the term compassion fatigue (CF) to capture the reduced capacity or desire to be empathetic or “bear the suffering of clients” and is the emotional consequence of knowing about a traumatizing event experienced by others. CF encompasses the notion that caregivers can suffer from secondary psychological trauma, exhibited by PTSD symptoms, and job burnout. Although the term resonates with clinicians, theoretical work on this concept has not kept pace with its use in research. This presentation, therefore, strives to connect CF with the more empirically supported sociological literature on emotional labor, and to the psychological literature on emotion regulation. It also discusses how all of these concepts fit into the stress process model and links people to their work environment and larger social structures. Theoretically, these processes begin with society’s stratification system influencing social expectations and socialization experiences related to gender, education, social class, and other ways people are located in society. The presentation also incorporates work conditions such as job-focused emotional labor (level of emotional demands) and control and management of emotional expression with the stress process model’s focus on social support and coping resources. In the end, the presentation attempts to develop a model that places CF into a larger social context which allows for interventions that reduce vicarious trauma, burnout, psychological problems, and turnover in professional caregivers.

JDM: Uncertainty, prediction and forecasting error

* Athanasios Polyportis & Flora Kokkinaki

Most people do not like the feeling of uncertainty. They are not usually willing to adapt their perception of the world to accommodate uncertain events. Nevertheless, uncertainty has been found to prolong positive feelings and affective reactions (Bar-Anan et al., 2009; Van Dijk & Zeelenberg, 2006). The authors argue that uncertainty, as an appraisal dimension of emotions (Tiedens & Linton, 2001), can also amplify the future desirability of a utility, as well as increase forecasting accuracy. Prior literature on appraisal congruency (Lerner & Keltner, 2000, 2001) suggests that the (un)certainty associated with emotions should affect people’s (un)certainty in the subsequent prediction situation. Low certainty emotions are characterized by higher levels of uncertainty, that is carried over to the subsequent prediction of the future utility (Kahneman & Snell, 1992) and hypothesized to lead to higher predicted utility. This effect continues until the emotional effect of incidental uncertainty is explained, adapted to and resolved (AREA model; Wilson & Gilbert, 2008). Towards this direction, the attention principle (Kahneman et al., 2004) is further refined since high uncertainty during prediction may trigger higher levels of focal attention and eventually greater perceived emotional impact of the future utility. The mediating role of heuristic processing (Tiedens & Linton, 2001) in the relationship between uncertainty and forecasting error is also examined. The findings of three studies indicate that, beyond valence, uncertainty is an important appraisal dimension in determining whether people tend to overpredict future utilities, as well as how accurate they are in their predictions.
Effect of interoceptive awareness on emotion regulation and implicit food craving in bulimia nervosa tendencies

Minseung Kim & Jang-Han Lee

The aim of this study was to examine the effects of the deficits in interoceptive awareness on emotion dysregulation and subsequent food craving following negative affective states in individuals with bulimia nervosa tendencies. Eighty-five female participants were classified into four groups on the basis of their bulimia nervosa tendencies (high bulimia nervosa tendencies/un-bulimia nervosa tendencies) and deficit level in interoceptive awareness (high/low). They completed emotion regulation questionnaire and self-reports (mood, hunger level) on a visual analogue scale before and after induction negative emotion, and then attentional bias for food was measured using eye-movements on food cues. Results indicated that the high bulimia nervosa tendencies who have a greater deficit in interoceptive awareness showed decreased reappraisal on the other hand, they used more suppression emotion regulation than other groups. After induction negative emotion exposure, they reported increased negative affect and decreased hunger level than other groups. Also, they showed a heightened attentional bias for food as looking frequently food cues for a long time than other groups after negative emotional experience. These findings suggest that individuals with high bulimia nervosa tendencies who showed a high level of deficit in interoceptive awareness are likely to showing a disturbed emotion regulation and misinterpretation about level hunger and affect states and following food craving.

Trust with Advisors Predicts Ph.D. Students’ Burnout via Everyday Confidence and Anxiety

Danfei Hu, Hyun Joon Park, Peter Ruberton & Jonathan Cook

One of the key contributors to success and retention in higher education is the establishment of positive relationships between students and their advisors (e.g., Nutt, 2003). Although researchers have theorized the importance of relational trust in developing positive advisor–advisee relationships in doctoral education (e.g., Bargar & Mayo-Chamberlain, 1983), few studies have empirically examined this. In the present research, we investigated how trust with advisors relates to the emotional experiences of Ph.D. students. As part of a pilot study, doctoral students at a research university were recruited across academic fields and year of study to complete a set of baseline measures online, including the extent to which they trusted their Ph.D. advisors. They were then asked to complete a 7-day smartphone study that included daily questions assessing how confident and anxious they felt about graduate school. Following this, participants completed an online questionnaire that included a measure of experienced burnout (e.g., feelings of emotional exhaustion; adapted from Maslach & Jackson, 1981). Results from the 86 participants with data at each stage indicated that, in general, Ph.D. students had a high level of trust with their advisors. Trust with advisor predicted lower ratings of burnout. A structural equation model further revealed that this relationship was mediated by both daily confidence and anxiety. Results provide empirical evidence that trust with advisor plays a significant role in Ph.D. students having more positive emotional experiences in graduate school. Implications for establishing a relationship of trust between doctoral students and their advisors are discussed.
Cognitive interference of more automatically processed, prepotent responses when attempting to process competing stimuli has been demonstrated in a host of paradigms. Such interference, typified by the Stroop Effect, gives insight into the relative automaticity of processing and, by extension, the ease with which such stimuli are used in our daily lives. However, it remains unclear what aspects of affective stimuli are processed most readily. Prior research has used a modified Stroop Task in which faces displaying basic emotions are shown with congruent and incongruent emotion words superimposed on those faces. To date, studies utilizing this task to infer whether emotional faces or emotional words are processed more automatically have found conflicting results. The goal of the current study is to test whether individual differences in social-emotional expertise (SEE), a construct that describes the variability in the timing and quality of behavior in social interactions, mediate interference in an Emotion Stroop Task (EST). We tested a representative sample of participants (18-81 years old) using a diverse set of emotion faces. Participants completed the EST, Color-Word Stroop Task, and survey measures of SEE and associated constructs. Preliminary results indicate that there was greater cognitive interference for emotion faces (M = 63 ms) than for emotion words (M = 24 ms; t (58) = -4.55, 95% CI: -56.91 to -22.15), with the EST not significantly different from the Color-Word Stroop effect (M = 75 ms; t (58) = -1.03, 95% CI: -36.31 to 11.54). Cognitive interference was not significantly associated with SEE.

Functional Connectivity Associated with Autonomous Sensory Meridian Response (ASMR): An Examination of Five Resting-State Networks

Stephen Smith, Beverley Fredborg & Jennifer Kornelsen

Autonomous Sensory Meridian Response (ASMR) is a sensory-emotional condition in which specific auditory and/or visual stimuli consistently elicit tingling sensations on the neck, scalp, and shoulders. These physical sensations are accompanied by positive emotions and a feeling of calm. The ‘ASMR triggers’ that initiate these responses generally consist of soft sounds (e.g., whispering), repetitive noises (e.g., tapping sounds), or videos of people performing socially intimate acts (e.g., watching someone brush her hair). Despite being a relatively common phenomenon, little is known about the neural substrates of ASMR. In the current research, resting-state functional MRI was used to examine whether ASMR was associated with atypical patterns of functional connectivity. Seventeen individuals with ASMR and 17 matched control participants underwent an anatomical MRI scan and a resting-state functional MRI scan. An independent components analysis was used to identify the default mode, salience, central executive, sensorimotor, and visual networks. An analysis of covariance with group (ASMR vs. control) as a between-subjects variable was performed to contrast the functional connectivity of each of these networks. The results demonstrated that ASMR was associated with reduced functional connectivity in the salience and visual networks, and with atypical patterns of connectivity in the default mode, central executive, and sensorimotor networks. Importantly, in ASMR participants, the sensorimotor network recruited ventral frontal lobe regions related to reward responses. This atypical link between regions...
related to sensation, movement, and reward may explain why some individuals experience ASMR while others do not.

Impact of emotion in virtual reality on sense of presence of children and young adults

* Lénaïc Cadet & Hanna CHAINAY

According to the literature, the sense of presence in virtual reality (the user's feeling of “being there” in a virtual environment) is related to the emotional experience. Although it is not clear which mechanisms and factors underlie this relation, the immersion (technology's capability to create a realistic virtual environment) and the age of users might impact this interaction. The goal of the present study is to examine the role of immersion and age of the user in the interaction between emotion and presence.

Participants: 2 groups of healthy volunteers: young adults (18-25 years old, n=40) and children (8-14 years old, n=40). Method: To manipulate immersion, the image quality in VR is modulated (high quality versus low quality). To manipulate emotion, different types of stimuli are presented (positive and negative stimuli with medium level of arousal, negative stimuli with high level of arousal and neutral stimuli). The fixation time of the stimulus and the diameter of the pupil are measured by an eye-tracker paired with the virtual reality headset to measure emotional responses to stimuli. Sense of presence and user's subjective evaluation of emotional valence and arousal are assessed via questionnaires. Results: We are still collecting the data. We expect to observe effect of immersion on emotion, with low immersion involving a decrease of the perceived valence and arousal, and longer fixation time and bigger pupil's diameter. We also expect to observe the interaction of effects of emotion and immersion on presence, and this interaction should be modulated by age.

Neural correlates of individual differences in emotion recognition ability – an fMRI study

* Petri Laukka, Kristoffer N. T. Månsson, Diana S. Cortes, Amirhossein Manzouri & Häkan Fischer

The ability to understand how others are feeling is important for social interaction. Studies have reported large inter-individual variability in emotion recognition ability (ERA) in the general population, but the causes for such differences are not well understood. This study investigated neural response during emotion recognition in individuals with high and low ERA. Forty-nine young adults were selected for inclusion based on their performance during previous testing of ERA (e.g., Hovey et al., 2018, Soc Cogn Affect Neurosci, 13, 173-181). Neural response was determined using the blood-oxygen level-dependent (BOLD) signal in a 3-Tesla functional magnetic resonance imaging (fMRI) experiment. The participants were asked to judge which emotions (anger, fear, disgust, happiness, interest, pride, relief, sadness, and neutral expression) were demonstrated in brief clips (i.e. audio-only, video-only, and multimodal audio-video) using a forced-choice response format. Stimuli were taken from the GEMEP emotion portrayal database (Bänziger et al., 2009, Emotion, 9, 691-704). In neural response to emotional stimuli, individuals with high ERA, relative to low ERA, showed higher activation bilaterally in the
Male happiness is detected most quickly

* Patricia Wilson & Kelsey Feret

As part of a larger study investigating human body odors on emotional recognition times using a within and between groups design, we investigated emotion recognition in male and female facial displays. Participants (N=68, 55 females) were randomly assigned to one of five human body odor conditions; results of this between subject analyses were nonsignificant. Participants were shown eight standardized faces (four female) morphed from neutral to anger, fear, happy, or sad over 30-sec., counterbalanced. Participants stopped the morph when they noticed an emotional change; reaction times were recorded. A repeated measure ANOVA showed the reaction times to be significant (p<.000). Analyses revealed that happiness, anger, or fear emerging on the face of males is perceived at a more rapid rate than on the faces of females. Conversely, the recognition of sadness takes significantly longer on male facial displays than on females. Further analyses showed that the responses to female faces did not differ from one another; the results were driven by responses to male faces with quickest recognition that of happiness emerging on a male face. It is noteworthy that happiness is detected most quickly. Emphasis on fast responses to male emotion suggests an evolutionary or socio-cultural explanation. Also, these findings suggest a method for looking at subtleties of emotion recognition.

Facial Muscle Responses and Participant Affective Ratings in Response to Social Interactions

* Marcus G. Wild & Jo-Anne Bachorowski

Social interactions are inherently affective experiences. Prior research has shown responses in facial musculature to affective stimuli, with positive faces recruiting the zygomatic muscle and negative faces recruiting the corrugator muscle. However, facial muscle responses to videos of social interactions are rarely investigated. The goal of this study was to test the involvement of the zygomatic and corrugator muscles, measured via facial electromyography (fEMG), and self-reported affective response, to a series of videos showing naturalistic social interactions. These videos vary in interaction quality, as indexed by the social-emotional expertise (SEE) of the individuals shown in the video. SEE is conceptualized as the ways in which individuals differ in the quality and timing of their social behaviors. This study was designed to test whether videos depicting higher quality interactions will elicit more zygomatic activity and more positive affective ratings than videos depicting lower quality interactions. Conversely, low quality interactions were predicted to elicit more corrugator activity and more negative affective ratings.
than higher quality interactions. To test these hypotheses, we recorded facial muscle activity for 80 young adults (18-23 years old) as they watched a set of nine, 30-s videos showing social interactions that vary in self- and observer-reported social skill and quality. During each video, participants provided continuous ratings of their own affective responses using a valence-based scale, the overall quality of the interaction, and social skills of the participants. Results are being analyzed using an ANOVA framework comparing high- vs. low-SEE interactions on facial muscle activation and affect ratings.

The Social Sharing of Emotions with an Emotion Awareness Tool during a Computer-Supported Collaborative Task

Mattia Alexandre Fritz, Stéphanie Perrier & Mireille Bétrancourt

There is a growing consensus in considering learning as the result of cognitive, social and affective interactions. In remote Computer-Supported Collaborative Learning (CSCL), though, there is a lack of para-verbal cues that are usually available in face-to-face interactions. As a result, socio-emotional information is often limited, if not absent. To alleviate this shortcoming, current trends in the field advocate the use of Awareness Tools, that is, tools that provide information about others, which can be instrumental to the task at hand. Emotions are known to play a pivotal role both at cognitive and social level and can thus provide useful information upon which learners can reflect and consequently adapt their behavior during the collaborative task. In this experimental contribution, we investigated the usage of three different versions of an Emotion Awareness Tool, which allowed participants to voluntary self-report their emotions during a (simulated) joint problem-solving task. In the first condition, participants could only see the emotions they had expressed; in the second, they could only see the emotions of the (simulated) partner; and in the third, they could have access to both. All participants were exposed to the same stimuli to control for confounding variables. Results, comprising eye-tracking measures, corroborate the interest in investigating the relevance of the social sharing of emotions in remote CSCL situations.

Prestimulus activation of right lingual gyrus leads to negative congruent perception during binocular rivalry

Angel Anna Zacharia, Navdeep Ahuja, Simran Kaur & Ratna Sharma

Background: Visual perception is biased towards the emotional content and contextual association of the stimuli. Binocular rivalry is an excellent means to assess such perceptual biases. Recent evidence suggests that along with the stimulus properties, the mental state before the arrival of any stimulus also influences the perception. How pre-stimulus brain state affect the perception of emotional congruent and incongruent pictures during binocular rivalry can be assessed by means of EEG microstates. Objective: The study was designed to investigate the pre-stimulus microstate and the associated neural generators preceding negative congruent and incongruent percept during binocular rivalry. Methods: An
intermittent binocular rivalry paradigm was designed using 6 negative congruent-incongruent picture pairs and administered in 60 right-handed subjects (26.84 ± 3.27 yrs). EEG was recorded using 128-channel geodesic sensor net and band-pass filtered between 1-40 Hz. Trials with congruent and incongruent response were separated and segmented into 100 ms epochs before the stimulus onset. Microstate analysis was performed using cartool software. Results: One prestimulus microstate map showed significant difference (p=0.04) in terms of global explained variance between congruent (0.14±0.06) and incongruent (0.11±0.07) percept. The estimation of sLORETA inverse solution with statistical non-parametric mapping for pre-stimulus map 1 showed higher activation of right lingual gyrus (MNI coordinates X, Y, Z; 15, -78, -5; p=0.01) preceding congruent percept. Conclusion: The prestimulus activation of the right lingual gyrus, proposed as a structure to process semantically congruent stimuli and negative valence, leads to the perception of negative congruent stimulus during binocular rivalry.

**POSTERS 1**  🗓 July 11th  ☐ 12:30—14:00  🔄 Main hall  # 60

**Sex differences in and associations between stress response systems after social-evaluative threat**

* Eefje S. Poppelaars, Johannes Klackl, Belinda Pletzer, Frank H. Wilhelm & Eva Jonas

Social-evaluative threat (SET) – when the self could be negatively judged by others – can cause pronounced stress responses in the sympathetic (SNS) and parasympathetic (PNS) nervous system, the hypothalamus-pituitary-adrenal (HPA) axis, motivation, and experiential affect. It is assumed that these stress responses are associated, but evidence is limited and conflicted. Additionally, previous studies have found that stress responses are influenced by sex and personality traits. The current study set out to investigate sex differences in stress responses to SET, and to explore associations between these stress responses and with personality traits. Thirty-seven men and thirty women in their luteal phase participated in the experiment. An impromptu public speaking task was used to induce SET while self-reported states and physiology were measured. SET reactivity was calculated by subtracting individual peaks from baseline. Results showed that SET successfully induced changes in all stress systems. As expected, there were no significant sex differences in stress reactivity, due to controlling for menstrual cycle phase. Analyses on associations between different stress systems showed that higher baseline stress indices predicted blunted reactivity after SET. Moreover, higher trait neuroticism was associated with blunted reactivity in both the SNS and the HPA system. Importantly, increased HPA reactivity was predicted by increased SNS reactivity, but not PNS reactivity. We suggest that the conflicting previous evidence for associations between stress responses is confounded by only measuring indices of combined SNS and PNS activity (such as heart rate) and future studies should distinguish between these systems.

**POSTERS 1**  🗓 July 11th  ☐ 12:30—14:00  🔄 Main hall  # 61

**What acoustic features predict listener behavior in a forced-choice vocal emotion recognition task?**

* Henrik Nordström & Petri Laukka

This study aimed to test how well acoustic features suggested by the literature could predict listener
behavior in a forced-choice vocal emotion recognition task. Fourteen actors, ranging from amateurs to professionals, were instructed to vocally portray 13 emotion expressions (Anger, Contempt, Disgust, Fear, Happiness, Interest, Lust, Pride, Relief, Sadness, Serenity, Shame, and Tenderness). An “optimal pattern”-index was calculated for each recorded portrayal reflecting how well it mirrored an emotion-specific “optimal pattern” of acoustic features inferred from the literature. Listeners (N = 102) judged the portrayals in a forced-choice vocal emotion recognition task. Each listener judged a subset of the 756 portrayals resulting in an average of 16.8 (SD = 2.1) judgments per portrayal. The “optimal pattern”-index was then used to predict the proportion of listeners who selected each emotion label for each portrayal. Results showed that the “optimal pattern”-index predicted perceived emotion for anger, happiness, and sadness, but not for any of the other emotions. This suggests that the acoustic features conveying most of the emotions included in the current study need to be further explored. To this aim, we present descriptive acoustic data for all portrayals for which a majority (> 50%) of the listeners selected the same emotion label. These descriptive results suggest new acoustic patterns that, if replicated, might lead to more stable predictions about the acoustic features underlying listener judgments of specific emotions in the voice.

POSTERS 1  🗓 July 11th  ⌚ 12:30—14:00  🗓 Main hall  # 62

The challenge of making this world a better place: Analyzing the chivalrous quality of Quixoteism

* Sergio Villar, Luis Oceja & Pilar Carrera

Quixoteism is a motive that leads people to undertake challenging actions (instrumental goal) to improve the welfare of the world (ultimate goal). Based on this double characterization, we test whether the activation of quixoteism increases the willingness to perform actions aligned with the instrumental goal: relatively extraordinary helping behaviors. In Study 1 (N = 66), the centrality of a structure of values linked to quixoteism (i.e., the transcendent-change constellation, TCC) predicted actual commitment with helping behavior only when this behavior implied a challenge. In Study 2 (N = 175), the centrality of TCC measured one month earlier was associated with a preference for a challenging helping behavior only when the ultimate goal of quixoteism was previously primed (i.e., threat of the welfare of the world). This is the first work to focus on analyzing the association between quixoteism and behaviors that involve a challenging helping (chivalrous) action.

POSTERS 1  🗓 July 11th  ⌚ 12:30—14:00  🗓 Main hall  # 63

Nucleus accumbens activation to reward is negatively associated to maladaptive emotion regulation and depressive symptomatology

Claudie Gaillard

The ability to experience pleasure in response to rewarding events is a determinant for well-being, for learning adaptive behaviors and for the development of goal-directed behaviors. Characterized by a disrupted processing of reward, anhedonia or the loss of pleasure is a core symptom in major depressive disorder (MDD). The experience of negative emotional states is another key symptom of MDD and is
Associated with the maladaptive use of emotion regulation strategies. So far, only scarce data exists about how adaptive hedonic experience is associated with emotion regulation, and how both are intertwined with depressive symptomatology. Here, we investigated how self-reported depressive symptomatology and emotion regulation strategies were associated with the neural reactivity to reward delivery in the ventral striatum among 23 healthy adults with a subclinical range of depressive symptoms. Our results demonstrate that neural activation to reward delivery in the nucleus accumbens is negatively linked to maladaptive emotion regulation and to higher self-reported depressive symptomatology. Taken together, these findings provide initial evidence that imbalanced reward responsiveness and maladaptive emotion regulation might interact to precipitate the onset of a major depression. Full list of authors: Claudie Gaillard, Matthias Guillod, Monique Ernst, Salvatore Torrisi, Andrea Federspiel, Dominik Schoebi, Romina Recabarren, Xinyi Ouyang, Christoph Mueller-Pfeiffer, Antje Horsch, Roland Wiest, Gregor Hasler, Chantal Martin-Soelch

**Comparing Appraisal Style Across US and Chinese College Samples**

* Leslie Kirby, Weiqiang Qian & Craig Smith

Dispositional differences in making appraisals across situations have not been widely studied. However, the Appraisal Style Questionnaire (ASQ), which aggregates appraisals along the 7 appraisal component dimensions defined by Smith and Lazarus (1990) across 12 hypothetical situations, has demonstrated promising reliability and validity. In the present study we use the ASQ to compare appraisal styles cross-culturally using samples of Chinese (N=187) and American (N=212) college students. Comparisons of sample means across appraisals show strong evidence for group differences on relevance, future expectancy, problem-focused coping potential, and accommodative focused coping-potential (all t≥3.698, all df=397, all p<.001, all d≥.371), with Americans scoring higher on each of the appraisal dimensions. For self-accountability, other-accountability, and congruence appraisals, the two samples do not reliably differ (all t≤2.298, all df=397, all p≥.022, all d≤.231). A multidimensional item response theory analysis indicates the ASQ functions similarly in the two samples, with the confidence bands of item discrimination parameter estimates overlapping across most or all of the 12 situations for each of the 7 appraisal dimensions. This bolsters the validity of using the ASQ to assess appraisal style differences across cultures.

**Designing Technology for Autism: Perspectives, Experiences and Expectations of Parents and Healthcare Professionals**

* Lauren Gillies, Karri Gillespie-Smith, Naeem Ramzan & Jean Rankin

Individuals diagnosed with Autism show impairments in social interaction, emotion recognition and can struggle with non-verbal communication such as eye gaze or facial expression. Lack of ability to communicate socially and emotionally can often lead to frustration and ultimately challenging
behaviours. An increasing amount of assistive technologies are being developed for children and adolescents with Autism, however a lack of understanding of user preferences and design factors has led to poor usability. Ironically, parents and health/social care professionals are rarely involved in the decision making process which shapes research. This study aims to address these limitations by bridging the gap between innovative technology design and what is both useful and effective in practice. Focus groups with both parents of children with Autism and health/social care professionals were carried out to gain insight into perceptions, experiences and expectations of interventions using technology which aim to improve social and emotional communication in children and adolescents with Autism. Thematic Analysis was used to capture the experiences and expectations of interventions. Preliminary results indicate three themes: (1) Detection of internal states (physiological and neural signals) as a potential diagnostic tool (2) Use of mobile applications to improve communication and emotional well-being – creating personalized technology which meets individual needs (3) Improving the evaluation of technological interventions. Overall, it is hoped that this research will serve as a basis for future intervention studies (specifically those models which aim to utilize bio-feedback or neural feedback) to improve the social and emotional skills of people with Autism.

Functional Brain Correlates of Emotional and Social Memory

Daphne Stam, Yun-An Huang & Jan Van den Stock

We explore many different situations, yet only a portion of these experiences will be remembered. Evidence shows that level of processing during encoding, predicts subsequent memory performance. An important question is “Are some events better remembered than others?”. A strong predictor of successful remembrance is emotional load. Emotional cues increase the probability of remembrance. In addition, there is evidence for specialized memory for social information. In the present study, we aim to reveal the neural correlates of normal episodic memory stages of emotional and social memory. A method to study episodic memory from the encoding stage to retrieval is the subsequent memory paradigm. It allows to investigate neural effects at encoding that predict subsequent memory performance, 'differences due to memory' (Dm). We investigated the effects of category (face vs. house) and emotion (angry vs. neutral) on Dm. Forty healthy subjects participated in an fMRI experiment, in which both encoding and recognition were performed in the scanner. We conducted a Performance x Category and a Performance x Emotion ANOVA on the activation during encoding and activation during retrieval (Fheight<.05, FDR corrected). We found a Performance x Category interaction effect in visual cortex and cerebellum during encoding and in V1 during retrieval, with positive correlation between activation and performance for faces but not for houses. No Performance x Emotion interaction was found. Activation associated with performance for all stimulus conditions during encoding and recognition overlapped in cerebellum and amygdala. These results provide new insights into the organizational principles of normal episodic memory.
Differentiating Multiple Appraisal Patterns Associated with Individual Negative Emotions

Craig Smith, Weiqiang Qian & Leslie Kirby

Appraisal theory maps the relations between appraisals and the experience of particular emotions. A key question concerns whether there are multiple appraisal patterns associated with the experience of a given emotion. We report analyses designed to address this issue for five emotions: anxiety, guilt, fear, sadness, and resignation. From an aggregated dataset (N=3761) containing appraisal and emotion ratings across a broad range of emotion-eliciting situations, we formed a sample for each of the target emotions, comprised of individuals who reported very high levels of that emotion. We then used latent profile analysis to identify the patterns of appraisal associated with each emotion. Multiple appraisal profiles were observed for all five emotions. In each case, one of these profiles corresponded well to the appraisal pattern theoretically predicted for that emotion. In addition, appraisal profiles emphasizing high levels of self-accountability, not typically associated with the emotion, were observed for anxiety, resignation, and sadness. Finally, for all five emotions, an additional profile was observed that was relatively undifferentiated, reflecting medium levels of congruence, future expectancy, and coping potential. We also compared the patterns of the other emotions accompanying the target emotion for each profile, and found that these patterns were quite different across profiles. This suggests that the different patterns of appraisal associated with a particular emotion reflect, in part, the full pattern of emotions being experienced.

Different effects of emotional intelligence and dispositional mindfulness on children’s affectivity

Jose M Mestre, Jorge Turanzas, Maria Gomez, Joan Guerra & Robin Kurilla

Mindfulness is both a non-judgmental and present-centered awareness, which has been applied to reduce negative emotions. However, Emotional Intelligence is a set of abilities (perceiving, expressing, understanding, and regulating emotions), which are involved in people’s social functioning. This empirical study was designed to analyze whether dispositional mindfulness (DM) and EI have a potential combined role for children and adolescent’s emotional states. In a sample of primary school students (N=318), age ranged from 8 to 16 years old (M= 11.25, SD=2.20), participants filled a TEI measure (ESCQ, Emotional Skills and Competence Questionnaire) and two measures of DM (CAMM, Child and Adolescent Mindfulness Measure and AFQ-Y, Avoidance and fusion questionnaire for youth). As criteria measures were selected: PANAS (Positive affect and negative affect schedule), White Bear Suppression Inventory (a thought suppression inventory), and STAIC (State-Trait Anxiety for Children). Findings pointed out that EI measures (labelling and expression, understanding, and managing emotions) were positive and significantly related to positive emotional states (especially, positive affect and balance) and negatively with a lower association with state anxiety. However, DM measures were both negative and strongly association with negative emotional states (thought suppression, negative affect, and anxiety). Conclusions indicate that a combined effect of both EI skills and DM based interventions would be more complete than each one separately for a better social functioning of children and teenagers. However, despite earlier researches, no barely mediation effects were found between EI and DM.
Emotion regulation (ER) is considered a transdiagnostic mechanism which is important for a number of different psychiatric disorders and numerous psychological treatments have been found to impact ER and consequently psychological well-being, even when ER was not a targeted directly (Kring & Sloan, 2010). Very few studies have specifically examined ER and its specific parameters as a mechanism of change in CBT, even though it is one of the treatments that were found to influence ER (Gross et al., 2015). This project examines the longitudinal cross-lagged associations between skills acquired by CBT-focused treatment (i.e., cognitive restructuring and behavioral activation), emotion regulation skills (e.g., cognitive reappraisal, expressive suppression) and psychological well-being, using a structural equation modeling framework, in order (a) to identify the reciprocal relationships between them and (b) to test if cognitive restructuring and behavioral activation will differentially impact cognitive reappraisal and expressive suppression, and their effect on psychological well-being. The sample consists of 1100 patients at a partial hospitalized setting receiving enhanced-CBT. The participants had a range of clinical diagnoses and completed the Emotion Regulation Questionnaire, the Cognitive Behavioral Therapy Skill Acquisition Scale, and the Schwartz Outcome Scale at admission, discharge and during the program. The results are currently being processed using Mplus 7. Evidence on the CBT skills that impact ER and on the reciprocal relation between them and psychological outcomes will enhance our understanding on the CBT mechanisms and will further inform the development of a unified CBT model across disorders and patients with emotion dysregulation.

**Dissatisfaction and Revenge as Motivations of Infidelity in Adolescence: Shame and Hostility as Associated Correlates**

María Dolores Sánchez-Hernández, Ana M. Beltrán-Morillas, María Alonso-Ferres, Laura Villanueva-Moya, Marta Garrido-Macías & Francisca Expósito

Infidelity refers to a violation of relational exclusivity previously established by the members of the couple. Although most of the literature focuses on adult relationships; however, infidelity in adolescent romantic relationships is a surprisingly common behaviour that involves different kinds of motivations. Two of the most frequent reasons for committing infidelity in adolescence are high levels of dissatisfaction in the relationships, as well as a desire for revenge after a previous behaviour of infidelity on the part of the couple. One of the emotions aroused further the act of infidelity in the offending person is the shame, which, in turn, could promote the escape or, arise in hostile behavior towards the couple as a way to return the damage received. Through a correlational study (N = 200 adolescents; M age = 16.94), this research aims to examine how different motivations of infidelity (dissatisfaction and revenge) are associated with the emotion of shame and hostile behavior. Participants had to respond to the measures related to dissatisfaction and revenge (Motivations for Infidelity Inventory), shame (PANAS), and hostile behaviour subscale (Aggression Questionnaire). The main results revealed that dissatisfaction was associated with lower levels of shame, leading in turn to greater hostile behaviour.
Similarly, the results also revealed that revenge motivation was related to greater shame, which, in turn, resulted in greater hostile behavior. Ultimately, these findings and their implications for adolescent romantic relationships are discussed.

**Cortical processing of music involves multi band bihemispheric activation of Prefrontal and Limbic cortices**

★ Vinay Chitturi, Nishi Pegwal, Simran Kaur & Ratna Sharma

Background: Music has been reported to affect emotional states as well as performance in multiple domains of cognition including visuospatial, verbal and language. Understanding the overlap of cortical networks processing music with the networks processing emotions and cognition could form the basis of using music as an adjuvant therapy for handling emotions and improving cognitive functions. Objectives: To study the cortical correlates of music processing as assessed through quantitative Electroencephalography (qEEG).

Materials and Methods: High density 128 channel EEG was recorded from 25 adult male subjects during eyes open and exposure to music (Mozart Sonata for 2 pianos –k448) for 5 minutes. Artifact free segments of band pass filtered EEG were preprocessed in Netstation and EEGLAB followed by source estimation through standardized low resolution electromagnetic tomography (sLORETA) to estimate current source density at multiple cortical voxels in MNI space. Activation/deactivation of cortical areas was extracted by clustering of voxel activation data. Non-parametric statistical comparison was performed in MATLAB.

Results: Significantly increased activation in was observed in bilateral superior and transverse temporal gyri, orbitofrontal gyri, frontal, parahippocampal and cingulate gyri across alpha (7-13 Hz), beta (13-30 Hz) and gamma EEG (30-100 Hz) bands. Decreased theta band (4-7 Hz) activation was observed in bilateral inferior parietal lobules and post central gyri Conclusion: Bilateral activation of neural circuits involved in motor activity, attention, executive control along with basal forebrain reward centers by music could explain the reported effects of music on emotional and cognitive processing.

**Reasoning, Recommendations and Implications: Self-Transcendent Emotions with Marginalized Populations to Remedy Social Isolation and Loneliness**

Kelly L Ziemer

Social isolation and loneliness are the latest public health hazard. Marginalized populations (i.e., “those excluded from social, economic, cultural or political life” due to their race, age, gender, etc.; Cook, 2008, p. 495) experience social isolation, loneliness, and, moreso, social exclusion at disproportionate rates to dominant groups. Quality social connection decreases social isolation and loneliness. Social well-being preventionists have explored solutions to this epidemic (i.e. strengthening social supports, adapting physical infrastructures for mobility), despite barriers; however, a 2018 National Institute of Health roundtable emphasized the integration of social well-being with emotional well-being scholars. Positive
emotions broaden coping abilities to build an individual’s resources (e.g. resilience, connection). Particularly promising are self-transcendent emotions (i.e. a subset of positive emotions consisting of awe, compassion and gratitude) because they “encourage individuals to transcend their own momentary needs and desires to focus on those of another” and “build social resources given their ability to bond individuals together” (Stellar et al., 2017, p. 2). Extant, preliminary research demonstrates self-transcendent emotions’ ability to foster social connection, yet a dearth of evidence demonstrates how self-transcendent emotions are conceptualized with and effective for marginalized populations. This poster contributes by: (1) arguing for professions who work with primarily marginalized populations (e.g. social work) to embrace self-transcendent emotions and (2) utilizing an interdisciplinary lens to recommend how researchers and practitioners can be inclusive of marginalized populations (3) providing implications for generalizability of self-transcendent emotions research and accessibility for researchers, practitioners and marginalized populations to thrive.

Demystifying the self-transcendent effects of awe by using a new VR-method

* Massimo Koester & Agnes Moors

Research has found that awe-evoking environments (e.g., the grand canyon) compared to more mundane environments induce feelings of smallness and insignificance and that this can lead to increased prosocial choices and reduced materialism. The standard explanation for these findings is that awe temporarily shifts a person’s attention away from the self, increasing the value of self-transcendent entities (e.g. nature, society as a whole), leading to more prosocial behavior. However, some studies show rather weak or inconsistent findings. The current study was set up to test an expectancy-value explanation to account for these inconsistencies and to extend the research to include pro-environmental behaviors (PEBs). According to this explanation, increasing the value of self-transcendent entities is not sufficient to produce self-transcendent behavior (e.g. PEB); an individual must also expect that such behavior will benefit the self-transcendent entity (e.g. nature conservation). It is possible that feeling small and insignificant not only increases the value of the self-transcendent entity but also reduces the expectancy that a person’s behavior will be efficacious, resulting in less, rather than more self-transcendent behavior. To examine the role of expectancy, we introduced a new method in which we compared a mundane nature environment (e.g., a garden) with the same environment that induces awe by shrinking the perspective of the observer in a virtual reality setting. We predicted that both environments would increase the value of self-transcendent entities through nature, but that the awe-evoking perspective would lead to reduced expectancy resulting in less PEB.
The emotional consequences of social comparison on social media: Instagram popularity predicts hostile envious responses

* Jerica Braswell & Nicole Henniger

Social media use can lead to subjectively negative emotions like envy (Appel, Gerlach, & Crusius 2016), although positive responses like inspiration are also possible (Meier & Schfer, 2018). Does the popularity of a social media post predict more negative emotional responses? In non-experimental studies, social success and popularity were identified as triggers of envy (DelPriore, Hill, & Buss, 2012; Henniger & Harris, 2015). The present study experimentally manipulated the popularity of mock social media post by randomly displaying either a higher (4398) or lower (88) number of social media users as having liked the picture. A sample of American college students (n = 219) viewed a mock Instagram post of an attractive straight couple in beautiful landscape. After viewing the post, participants answered questions about their emotional responses and cognitions. Participants in the high-likes condition reported greater episodic envy, described the photo as being less aesthetically pleasing and the person who posted the photo as being less deserving, and predicted that they would be less likely to like the post themselves (all ps < .05). They were also more likely to identify the status of the individuals in the photo as the cause of their envy (p = .02). Other upward comparison emotions like inspiration did not show these patterns, indicating that this effect of popularity was unique to episodic envy. These findings hold implications for theories on the effects of situational appraisals on emotional responses to upward comparisons, particularly in the context of social media.

Do emotions improve decision making about one’s own body?

* Morgane Metral & Mélody Mailliez

A recent case study highlighted the value of using the Appraisal Tendency Framework (ATF; Han et al., 2007) to reduce impairments in decision making about one’s own body in anorexia nervosa (Metral & Mailliez, 2018). The ATF holds that induced emotions associated with a high degree of certainty would trigger a heuristic information processing, whereas induced emotions associated with a high degree of uncertainty would trigger a deliberative information processing. Several studies showed that heuristic processing leads participants to make more advantageous decisions than deliberative processing (e.g., Bollon & Bagneux, 2013). Beyond eating disorders, impairments in decision making about one’s own body are also reported in young women (Conley & Boardman, 2010). Hither, we sought to investigate the extent to which induced emotions, associated with a high degree of certainty, could reduce impairments in decision making on their own body in undergraduate women. To examine this hypothesis, participants were induced with an incidental emotion associated either with a high degree of certainty or uncertainty prior to perform an adapted version of the Iowa Gambling Task (Body-IGT-Modified, Metral & Mailliez, 2018). Impairments in decision making about one’s own body were only improved for participants induced with an incidental emotion associated with a high degree of certainty. Our findings are the first to show that impairments in decision making about one’s own body can be reduce by the induction of incidental emotions in young women at University.
**The effectiveness of a dynamic multimodal emotion recognition accuracy training program**

Lillian Döllinger, Lennart Högman, Tanja Bänziger, Petri Laukka, Irena Makower, Håkan Fischer & Stephan Hau

Background Computerized trainings for emotion recognition accuracy (ERA) have shown to be successful, however, are often lacking external validity. The use of still pictures, the focus on the face, and limited response sets limit generalizability of findings. Further, trainings often use between-subjects designs and short time intervals between, or same items for ERA training and outcome measure. In response, we developed and evaluated a multi-modal ERA training in a randomized controlled trial.

Method Seventy-two undergraduate students (M=24.7, SD=7.69, 75% women) signed up for the study; 68 completed all measurements. They were randomly assigned to the multimodal ERA training or one of two control conditions. The ERA outcome measure (ERAM; Laukka et al., 2015) assesses 12 emotions separately in three modalities (audio, video, audio-video) using 72 dynamic stimuli. The multimodal training consisted and immediate and extensive feedback using different items. The last training session and the ERA outcome measurement lay approximately one week apart. Results and Conclusions A repeated-measures ANOVA with baseline as covariate showed a main effect of training on the ERAM, F(2/63) = 8.04, p < .001, ηp2 = .20. Bonferroni-corrected posthoc tests revealed the change for the multimodal training was significantly superior to the control conditions (p=.001; p=.003). Detailed results per modality and descriptive statistics will be presented. Due to its multimodal and dynamic nature, delay between training and outcome measure and use of different items, the multimodal training is a promising tool for training ERA in different contexts, like clinical settings, assessment procedures or law enforcement training.

**Do disgust condition food desirability more than fear?**

Cagla Cinar, Joshua M. Tybur & Paola Perone

Prepared learning suggests that associations that helped solve adaptive problems in the ancestral past are learned more strongly. The ease with which associations between nausea and food are formed is offered as a prototypical case of prepared learning (e.g., Rozin, 1989), as are experiments finding that electric shock conditions aversions to snakes more effectively than aversions to flowers (e.g., Öhman, Fredrikson, Hugdahl, Rimmö, 1976). In this study we tested prepared learning in an evaluative conditioning procedure by investigating whether disgust-associated cues, which elicit nausea, shape impressions of foods differently than fear-associated cues. We further tested to see if this difference is moderated by food type (meats vs. plants, with the former being a more likely candidate for prepared learning) and if so whether the nature of the food (raw vs. cooked, with the former also being a more likely candidate) would further moderate this effect. Five hundred fifteen participants went through an evaluative conditioning procedure in which they saw foods paired with either disgust-elicitng or fear-elicitng images. After conditioning, participants rated expected enjoyment in eating these food products. We found that participants anticipated less enjoyment from eating foods paired with negative images. However, this effect was not moderated by the type of negative image (disgust-elicitng vs. fear-elicitng) or food type (meats vs. plants). Hence, results here did not support a prepared learning account of food
Vulnerability and Adolescent Black American Males’ Pro-Social Behaviors

Johari Harris & Ann C. Kruger

The conversation regarding adolescent African-American males is most often focused on the risk they face. Lost in this, is an examination of young African-American boys’ emotions and positive behaviors, vital components of interpersonal relationships. To address this gap, this study investigated how young African-American males defined pro-social behaviors and the factors that encouraged them. This mixed-method study included 131 adolescent African-American males. 12 males were invited to participate in focus groups probing what factors engender pro-social behaviors and resulting transcripts were analyzed using modified induction analysis. Focus groups revealed a key factor in pro-social behaviors was vulnerability. Participants stated vulnerability was hugely important in their relationships and they expressed the most kindness to people they could be vulnerable with. They lamented, though, their social positioning as young African-American men limited their ability to express vulnerability as it would lead others to view them as weak and/or take advantage of them. Participants wanted to be vulnerable with others but felt the risks were too great. These important results speak to the impact oppressive cultural processes have on African-American adolescent males’ development and emotional expression. Additionally, findings contradict dominant narratives which depict young African-American males as apathetic and emotionless. The reality is quite the opposite: young African American males want to connect but struggle within and against social constraints. Further research should continue to look closely at the specific emotional components and processes of young African-American males with the goal of supporting healthy development in the face of systematic oppression.

Effect of negative emotions on central executive function: utilizing a social-exclusion manipulation paradigm

Ritsuko Azami, Mariko Obana & Ritsuko Nishimura

Recent studies have revealed that the occurrence of negative emotions can cause central executive (prefrontal) dysfunction. This study examined how central executive function can be affected by negative emotions, which were experimentally induced using a social exclusion paradigm. Eighty-six university students participated in the experiment. Two affective conditions were primed using a social-exclusion manipulation paradigm: “future alone” (FA) and “future belonging (FB).” Participants rated their emotions before and after the manipulation using an affect grid. In addition, the Stroop task was used to measure prefrontal function (i.e., ability to suppress task-irrelevant stimuli) after the manipulation. A two-factor mixed-design ANOVA was performed using pleasant–unpleasant valence on the affect grid as the dependent variable, and condition (FA/FB) × time (pre/post) as independent variables. After manipulation, FA participants tended to rate their emotions as more unpleasant, while FB participants, in
contrast, gave more pleasant scores. A similar two-factor ANOVA that was run with arousal–sleepiness valence as the dependent variable showed that participants experienced higher arousal after than before the manipulation. Next, a t test was run to compare Stroop task performance between social-exclusion conditions. Participants assigned to the FA condition exhibited reduced prefrontal function compared with those assigned to the FB condition. Our findings show that negative emotions triggered by social exclusion reduce central executive function, acting to decrease cognitive performance.

POSTERS 1  📆 July 11th  ⌚ 12:30—14:00  🔗 Main hall  #80

I’m Here For You: The Effects of Consoling Touch on Negative Emotional Experiences

🌟 Razia Sahi, Macrina Cooper-White, Matthew Lieberman & Naomi Eisenberger

While the pain-alleviating effects of consoling touch are well established (e.g. Coan et al., 2006), it remains unclear how consoling touch reduces pain, and whether consoling touch reduces emotional pain in the same way as it reduces physical pain. Research suggests that touch can communicate emotional states (e.g. Hertenstein et al., 2009), so one possibility is that touch reduces pain in a target of distress by communicating the support giver’s empathy. In other words, touch may allow people to share the burden of their pain, thereby relieving them of some distress (Coan, 2011). This study probed the mechanisms underlying consoling touch by examining romantic couples as they watched videos of one of them, aka the “storyteller”, recounting personally distressing experiences. Preliminary results (ndyads = 30) suggest that while consoling touch provides a source of comfort to storytellers during emotionally distressing videos, it does not reduce their immediate distress. Instead, consoling touch may actually lead to greater engagement with negative emotional experiences. During consoling touch, storytellers were more emotionally in synch with their partners (r = 0.463, p = 0.013) and more likely to re-experience what it was like to record the emotionally distressing videos at a previous session (r = .712, p <.0001). While contrary to our initial hypothesis that consoling touch would decrease emotional distress, these findings are interesting to consider in light of other research showing that feeling safe and supported is necessary for processing negative emotional experiences.

POSTERS 1  📆 July 11th  ⌚ 12:30—14:00  🔗 Main hall  #81

Identity and Emotion in Ambiguous Romantic Relationships

Chelsea Kelly

Affect control theory links emotions to romantic relationships via structural emotions, which are emotions experienced when perfectly confirming a role-relationship; characteristic emotions are emotions which perfectly confirm one’s identity (MacKinnon 1996). Modern romance offers an array of new relationship types and labels through which young adults may develop and adopt new adult identities. In this paper, I map the cultural locations of 7 distinct ambiguous romantic relationship categories in 3-dimensional affective space (valence, dominance, arousal). Using concept-coded qualitative definitions from young adults participating in self-professed ‘ambiguous romantic relationships’ (N=232), I show that while relationship label (identity) change may be frequent in this
interaction space, the labels are not interchangeable; concept-by-concept correlation matrices show that the distinct designations have culturally-shared meaning for the relationship expectations native to that label. I make use of these emergent patterns to design a series of computer simulations using affect control theory-based emotion equations. Using the theoretically-predicted characteristic and structural emotions, I make predictions about the emotional consequences of engaging in these types of relationships and determine the relationships which are more (e.g., “talking to” relationships) and less (e.g., “seeing each other” relationships) risky for emotional well-being. I am currently gathering 2 waves of longitudinal data (N=500) which will provide tests for these theoretical emotion predictions. I conclude with a discussion of the implications of engagement in these emerging relationship styles for emotional well-being.

**Was that intentional? Infants use emotional communication to infer and re-enact others’ intended actions**

Tyrone Johnson, Katey Workman, Peter Reschke, Eric Walle & Daniel Dukes

Infants are able to re-enact others’ goals in their second year (Meltzoff, 1995). However, the role of emotion in understanding others’ intentions and how this ability develops remains unstudied. In this study, forty 18- (n = 20, 9 females) and 15-month-old infants (n = 20, 8 females) observed an experimenter perform scripted actions on five stimuli designed to perform a target action (e.g., a dumbbell that can be pulled apart from the center; Meltzoff, 1995; Yott & Poulin-Dubois 2012). For each object, the experimenter attempted but failed to perform the target action (e.g., failing to pull apart the dumbbell). Novel to this study, infants were randomly assigned to view the experimenter express frustration or remain neutral after each attempt. Infants interacted with each object for 20 seconds and their re-enactment of target actions (e.g., pulling apart the dumbbell) was coded. Eighteen-month-old infants re-enacted significantly more target actions in the frustrated condition (M = 0.67) than the neutral condition (M = 0.41), t(94) = 2.23, p = .03, d = 1.05, 95% CI [0.02, 0.42]. However, younger infants re-enacted a similar number of target actions in the frustrated (M = 0.47) and neutral conditions (M = 0.41), t(91) = .39, p = .70, d = .28, 95% CI [-0.16, 0.24]. These results suggest that infants use emotional communication to disambiguate and re-enact others’ intended actions and that this ability develops during the second year of life. Implications for the role of emotion in understanding intentions will be discussed.

**Does jealousy produce positive as well as negative behaviors?**

Mingi Chung & Christine R. Harris

Most research on jealousy has focused on behaviors that could be classified as negative (e.g., violence or derogation of the rival). However, a functional view of jealousy proposes that this emotion evolved to help protect relationships against interlopers. While negative behaviors may secure relationships through
threats, jealousy might have effects via more positive acts (e.g., being more attentive to partner). The current study examines whether individuals sometimes channel their jealousy into constructive behaviors. Using a hypothetical scenario, we examined how individuals in established heterosexual relationships reacted to a jealousy-inducing scenario. Measures included (1) self-reported emotions, (2) perceptions of the rival’s personality, and (3) negative and positive behaviors. Participants (n=431) were randomly assigned to a jealousy or control condition. Subjects read a Facebook conversation that was either flirtatious (jealousy condition) or not flirtatious (control condition) and were asked to imagine that the conversation was between their partner and another person of the opposite-sex. In the jealousy condition, participants reported higher ratings of feeling jealous, betrayed, surprised, hurt, angry, and sad. They also were more likely to derogate the rival’s personality in areas of morality, warmth, and competence compared to controls. Moreover, jealous participants reported that they would be more likely to engage in both negative (e.g., stop talking to partner) and positive (e.g., try to reaffirm the relationship) behaviors. These findings support our hypothesis that despite jealousy feeling subjectively negative, it can give rise to positive as well as negative behaviors to deal with the relationship threat.

Conscious and Non-Conscious Affects: Distinct Effects on Feeling and Facial Expressions

* Nicolas Pillaud & François Ric

How do emotion feelings arise? Most theories of emotion consider that emotion feelings result from the perception of affective stimuli that is then appraised on several dimensions. Within this process, it is sometimes assumed that appraisals can occur preattentively (i.e., without awareness; e.g., Frijda, 1988; Barrett, 2011). However, it is unclear whether awareness is a necessary condition for the transformation of these appraisals into affective feelings. The present studies were aimed at testing this by exposing participants to a series of 55 positive vs. negative affective stimuli (words in Study 1, pictures in Study 2), each presented twice for a very short duration (33 ms). Depending on the condition, the stimuli were presented without being masked, allowing them to reach consciousness, or were immediately masked to prevent conscious awareness. Measure of affective reactions included expressive facial reactions (measured with facial EMG; i.e., activity in the major zygomaticus and the supercilii corrugator) as well as subjective feelings (BMIS; Mayer & Gaschke, 1988). The two studies revealed similar patterns of findings: a congruent effect was observed on both feelings and physiological activity when the stimuli could be perceived consciously (i.e., positive stimuli led to a more positive feeling than negative stimuli) whereas an incongruent effect was obtained when the stimuli were presented out of conscious awareness. Explanations of these unexpected findings as well as their relevance for emotion research will be discussed.
A hybrid approach to experience sampling for studying emotions

Long Doan

Leveraging smartphone technology, we develop a new hybrid approach to collecting time use data that incorporates the strengths of time diaries and experiential sampling to study the emotional consequences of time use and present pilot data from this approach. This hybrid experiential-retrospective (HER) design conceptualizes respondents’ responses as a packaging of related data to which we can append contextual information after the initial response. We argue that doing better balances the recall bias with participant burden and noncompliance than prior methods. A methodological experiment comparing HER to day reconstruction (DRM) and experiential sampling (ESM) methods show that HER produces results that match ESM in terms of emotions and is a mix of ESM and DRM in terms of contextual information like types of events, location, and with whom data. I end with an empirical application of the method using a longitudinal study of graduate student time use and emotional wellbeing.

Examining influences on frowning at “Mark is furious”: Word-driven simulation, morality-based evaluation, and minimal-group membership

* Björn ’t Hart, Marijn Struiksma, Anton van Boxtel & Jos van Berkum

Many of our everyday emotional responses are language-driven: people use language for, e.g., praise, criticism, courtship, exclusion, consolation, encouragement, and gossip. A complete understanding of how human emotion unfolds therefore also requires an analysis of how words elicit emotion as they are heard or read. We report a facial EMG-experiment on the processing of emotion-rich language in moral and in/outgroup contexts. In earlier EMG-studies (e.g., ’t Hart et al., 2018), where participants read emotion-describing phrases like “Mark is furious” or “Mark is happy” in stories where the protagonist had just exhibited morally good or morally bad behavior, corrugator response patterns suggested that language-driven emotional responses do not merely reflect the affective evaluation of characters and story events (more frowning at ‘unfair’ or ‘unjust’ events, e.g., something good happening to a bad person, than at fair events, e.g., something bad happening to a bad person), but may also reflect simulation, or ‘embodiment’, of the affect-related linguistic meaning (e.g., more frowning at “furious” than at “happy”). In the current EMG-experiment, we further explore the interplay between affective evaluation and affect simulation. Now, participants read phrases such as “Mark is furious/happy” either after having been told that Mark is a good vs. bad person, or that Mark is vs. isn’t a member of the participant’s minimal ingroup. Whereas moral status led to strong fairness-based evaluative frowning adding to simulation-based frowning at these critical phrases, in/outgroup status did not. Results suggest that EMG-recorded facial emoting reflects stable language-driven simulation combining with variable affective evaluation.
Numerous research found a significant role of emotion in problem solving. However, how emotions shape collaborative problem solving remains an open question. In this study, we sought to determine relationships between emotions shared by problem solvers and collaborative processes involved. Twenty-two participants were randomly assigned to same-sex pairs and asked to complete a problem solving task. At any time, participants could voluntarily share their emotions with their partner, using a reporting tool. Their speech was transcribed and categorized into a series of meaningful collaborative categories. Two chi-square tests of independence (due to test constraints, only positive emotions were considered) confirmed a relation of dependency between collaborative processes and positive shared emotions, both before sharing emotions ($\chi^2(96) = 218.41, p<.001$) and after ($\chi^2(96) = 131.14, p<.01$). Results underline that problem solvers do not randomly display positive emotions during collaboration. Rather, certain emotions appear, more than chance, in conjunction with certain collaborative processes. Adjusted standardized residuals (showing which associations are the source of the statistically significant chi-square tests) were calculated and strongest associations identified. For example, acceptance of proposition increases while outside activity decreases, both significantly, before the sharing of the emotion interested. We propose three main hypotheses concerning the potential role of shared emotions in collaborative problem solving, namely sharing one's own mindset about task achievement, clarifying messages and initiating new stages in the collaboration. Future perspective, especially the consideration of negative shared emotions and relational processes, are developed to gain a finer understanding into collaborative problem solving dynamics.

Conceptualizing Online Emotions as Emotives: A case study of #womenwhofarm on Instagram

Jennifer Sonne

This research project builds on Reddy's (2001) concept of emotives to empirically investigate how women farmers emotionally engage in altering and stabilizing their identities through the use of Instagram. Emotives are expressions of emotions that are learned over time and contextually enacted. Part of the importance of emotives lies in their capacity to produce changes or reify held beliefs at the collective level, such as when a group of people engage in shared emotive styles. A dataset of 71,361 Instagram posts that included the hashtag #womenwhofarm was collected from August 1, 2017 to August 31, 2018. A random sample of 1% posts ($N = 714$) was analyzed using both thematic coding as well as coding for eight basic emotions (joy, sadness, anger, fear, trust, distrust, surprise, and anticipation). Preliminary analysis indicates that one way women farmers engage in regulating their identities is through emotives that link themselves to their farm. An example is a simultaneous expansion of the definition of beauty to encompass not only their produce and livestock, but also by extension themselves as producers, such as when a woman farmer juxtaposed the caption of “pure beauty” with an image of “ugly” tomatoes (in that they were misshapen, inconsistent in size, and had holes from bugs in them). By broadening the evidence of emotives into online settings, this research continues to bridge gaps between information studies,
The impact of emotional characteristics of words on interference control in Emotional Stroop Task

Kamil Imbir, Maciej Pastwa, Gabriela Jurkiewicz, Joanna Duda-Goławska & Jarosław Żygierewicz

The influence of emotional meaning of words on the EST performance is a well known phenomenon. Previous research had shown, that the level of arousal and subjective significance influence the response latencies in color naming task (Imbir 2016; Imbir et al., 2017, 2018). The aim of the current study was to verify previous findings, as well as checking the role of emotional valence for arousal and subjective significance. The stimuli used were Polish words (taken from ANPW _R database; Imbir, 2016), divided on three levels (low or negative vs medium or neutral vs high or positive) for each of the three controlled dimensions (arousal, subjective significance, and valence). We expected the interaction between arousal and subjective significance, namely enlargement of response latencies for highly arousing stimuli and shortening for highly subjective significant stimuli. We also expected the interaction between valence, arousal and subjective significance, namely slower performance for arousing, highly significant, positive or negative words. We analyzed reaction times in within-subject ANOVA model, which showed interaction effect of valence and arousal on performance, as well as the moderating role of subjective significance. Words with neutral valence and low in arousal were the most indifferent, allowing fastest processing, whereas the highly arousing stimuli slowed down performance. Among words with positive valence and medium or high arousal, significance of the stimuli affected the time of the performance – low significance enabled faster responses. The results suggest that processing arousing (not neutral) words require more effort, significance of stimuli may reduce this effect.

The focusing illusion and the happiness of mothers: Comparing different family status choices

Adi Luria & Lior Nadler

The main goal of the present study is to examine if the 'focusing illusion' (Kahneman et. al, 2006) affects the happiness of mothers in different family arrangements. According to Kahneman, when people consider the impact of any single factor on their happiness they are prone to exaggerate its importance. This focusing illusion may serve as a bias in evaluating self and other’s happiness, and may also lead to sub- optimal life decisions. This illusion has previously been studied regarding income, health, and living conditions. To the best of our knowledge this is the first study to investigate its effect on single mothers and those choosing to conceive through sperm donation. We sampled 145 mothers from three different family statuses: divorced (44), married (41) and single by choice (who conceived through sperm donation) (60). We measured happiness, perceived loneliness and social support. We found significant differences between the groups in happiness. Moreover, we found evidence for the focusing illusion: perceived happiness of single mothers by choice was higher than the happiness predicted for them by other mothers. The same was found for married mothers. Our findings show that mothers inaccurately
predict the happiness of mothers in life circumstances different than their own (single, divorced, married), suggesting that in alignment with the focusing illusion, they exaggerate the importance of salient factors such as marital status. We also discuss additional findings. Kahneman, D., et. al (2006). Would you be happier if you were richer? A focusing illusion. Science, 312(5782), 1908-1910.

**Interpersonal Emotion Regulation and Social Functioning**

* Felicia Zerwas, Iris B. Mauss & Oliver P. John

People often try to change the emotional experiences or expressions of others around them (interpersonal emotion regulation; IER), such as when we tell an upset friend not to worry about a poor test score. Given how pervasive IER is, it is important to understand different forms of IER and their implications for social functioning. We distinguish among three theoretically motivated interpersonal regulatory strategies. Suppression involves keeping others from expressing their emotions; reappraisal involves reframing others’ emotional events; acceptance involves allowing others to feel their emotions without trying to change them. We argue that interpersonal suppression might hinder the formation and maintenance of close relationships, while interpersonal reappraisal and acceptance might benefit the formation and maintenance of close relationships. We examined our hypotheses in a sample of eighty female friendship pairs (N=160) between the ages of 23-78. Each participant reported on their own habitual use of the three emotion regulation strategies as well as multiple measures of social functioning. We found that interpersonal suppression was associated with lower social functioning and interpersonal acceptance was associated with higher social functioning. Most of the associations with interpersonal reappraisal were not significant. These findings suggest that it is important to compare different forms of IER. Specifically, interpersonal suppression might be a socially costly strategy; interpersonal acceptance might be a socially beneficial strategy; and interpersonal reappraisal might be a socially mixed strategy.

**Team member interpersonal emotion regulation and innovation in teams**

* Cristian Vasquez & Hector Madrid

Interpersonal emotion regulation (IER) refers to the actions to initiate, maintain or change emotions in others. According to theoretical developments, IER is a common activity among team members; however, we little still known about the effects of IER on team members’ motivation and team performance. The aim of this paper is to examine whether team members’ IER influences team innovation performance, via team member approach and avoidance motivational systems. Using data from team members and leaders’ surveys, involving 2071 employees nested in 392 teams, results from structural equation modelling supported that team members’ strategies to make others feel positive feelings (IER improving-affect regulation) was positively associated with team approach motivation, which in turn was positively associated with team innovation. Conversely, team members’ strategies to make feel others negative feelings (IER worsening-affect regulation) was positively related to team
avoidance motivation, which in turn was associated with lower team innovation. These findings contribute to expanding our knowledge of IER in teams, showing how these regulatory actions of team members can facilitate and inhibit their motivation necessary for innovation. Regarding practical contributions, therefore, training initiatives aimed to increase affect-improving regulation and to decrease affect-worsening behaviours should be valuable for team effectiveness.

Who is the leader? The Regulation of Other’s Emotion and Emergent Leadership

* Arik Cheshin, Gil Luria & Sagi Goldberger

It has been demonstrated that leaders influence others by using emotions (e.g., Koning & Van Kleef, 2015; Visser, van Knippenberg, van Kleef, & Wisse, 2013; Wang & Seibert, 2015). However, what about the regulation of others’ emotion? In two studies of self-managed teams, we tested whether leadership is granted to those who regulate emotion of others. In Study 1, students (n = 102) divided into 25 groups of 3-5 participants completed a short group task in the lab. In Study 2, 43 student groups of 3-6 participants (n = 141) completed a joint class assignment for 5 weeks. In both studies, participants assessed each member’s impact on team emotion and identified the leader (emergent). We found that those who regulated the emotions of their team were more likely to be selected as leaders. In Study 1, participants who created more positive team emotion were more likely to be chosen as leaders (r = .43, p < .001). In Study 2, participants who scored higher on IER self-report measure were more likely to be seen as possessing leadership qualities (r = .23, p = .006) and to be chosen as leaders (r = .21, p = .015). These studies provide initial evidence that in order to emerge as a leader one needs to regulate the emotions of teammates. Thus, interpersonal emotion regulation is a key variable that team members look for when selecting a leader.

Does emotional eating really exist? A laboratory study using idiosyncratic mood induction suggests yes

* Rebekka Schnepper, Claudio Georgii & Jens Blechert

Literature reports that a majority of individuals decrease their food intake under stress and negative emotions (main effect model). Yet, for some individuals, the opposite might be the case (interindividual difference model) but it is controversial whether these individuals are characterized by trait level emotional eating style, by other traits, or by situational factors. Further, the choice of experimental mood induction technique and considering the intensity of trait emotional eating might play a role. In order to maximize personal relevance and to ensure effective negative mood induction, we used idiosyncratic autobiographical scripts of recent negative events. Participants with a wide range of trait emotional eating style questionnaire scores viewed food images in negative vs. neutral mood and rated their desire to eat. Multilevel modelling—treating mood intensity and trait emotional eating continuously—revealed a general decrease in desire to eat in negative mood compared to neutral state (consistent with the main
A license to kill your diet: Emotions as a justification for self-regulation failure

Catharine Evers, Jessie de Witt Huberts & Denise de Ridder

Negative emotions typically seem to interfere with people’s good intentions and often undermine self-regulation attempts. It has remained unclear why negative emotions have this undesired effect. In the current work it is assumed that emotions are sometimes used as a license to justify self-regulation failure, a phenomenon coined emotional licensing. Study 1 was an explorative questionnaire to explore to what extent people use emotional licensing to overeat. Results revealed that participants (n = 101) recognize using emotions as a license to overeat and 50% used emotional licensing once per week or more. In Study 2 (n = 82) emotions were induced in the lab, followed by a license manipulation (emotional license vs. no license) and a bogus taste test with unhealthy foods to measure actual food intake. Despite feeling equally emotional, participants provided with a license revealed increased caloric intake compared to participants without a license. In Study 3 (n = 61) emotional licensing was manipulated more indirectly by varying the salience of the emotion induction (long-duration vs. short-duration vs. neutral control condition) and the bogus taste test entailed both healthy and unhealthy foods. Results revealed that, despite being equally emotional, more food was consumed in the long-duration than in the short-duration condition and than in the neutral control condition; this only applied to unhealthy foods, not to equally palatable healthy foods. These findings uncover an alternative pathway by which emotions can interrupt self-regulation and point towards emotions as an apology to indulge rather than indulgence as emotion regulation strategy.

Interactions between emotions and decision-making in behavioral variant frontotemporal dementia

Aurélie L. Manuel, Fiona Kumfor, John H. Hodges & Olivier Piguet

Negative and positive emotions have been shown to shape decision-making towards more or less impulsive responses respectively. Both processes also share a common brain network including the ventro medio-prefrontal cortex (vmPFC). How these two processes interact at the behavioral and brain levels is still unclear. Patients with behavioral variant frontotemporal dementia (bvFTD, n=14), who typically present with deficits in decision-making/emotion processing and lesions to the vmPFC and/or amygdala, healthy age-matched controls (n=13) and a group of healthy young controls (n=10) completed a delay discounting task. Participants were asked to choose between a hypothetical immediate reward and a later but greater, reward. Prior to each decision, participants were cued with a positive, negative or neutral picture. Preliminary behavioral results indicate that bvFTD patients were significantly more
Impulsive than both control groups (p<0.05), but emotion did not differently affect delay discounting. In controls, negative emotion increased delay discounting/impulsivity in young but not in older controls. These findings highlight a reduced effect of emotion on decision-making in older controls and bvFTD which appears to be mediated by different brain mechanisms. Ongoing neuroimaging analyses will further disentangle the interactions between the mPFC decision-making and emotion processing networks.

**Social behavior in the course of dementia: a systematic video analysis of non-scripted conversations**

*Mandy Visser, Deborah Parker, Simone Simonetti, James Burrell, John Hodges & Fiona Kumfor*

In 2015, 47 million people worldwide live with dementia. Changes in social and emotional behavior are potential symptoms of behavioral-variant frontotemporal dementia (bvFTD) and semantic dementia (SD), causing a growing inability to communicate with others. Yet, objective ways to assess such behavior are lacking. This longitudinal study examined changes in social behavior related to different dementia syndromes, by analyzing non-scripted interactions in 20 people with bvFTD and 20 people with SD, compared to 20 people with Alzheimer’s disease (AD). Conversations with their doctor were video-recorded after diagnosis (year 0, baseline), and in year 1 and 2. These ten-minute videos were analyzed for the presence of six socially engaging (e.g., smiling, gesturing) and six disengaging cues (e.g., avoiding eye contact, self-grooming), by three raters, blind to diagnosis (Cohen’s Kappa’s >.7). Baseline results demonstrated that people with bvFTD showed more social disengagement than engagement (p = .02), whereas people with AD and SD showed both engaging and disengaging behavior. People with AD and SD nodded more than people with bvFTD (p = .03), demonstrating that this form of signaling understanding of communication is preserved in SD and AD. Furthermore, people with SD gestured more than people with AD and bvFTD (p = .01), suggesting a reliance on non-verbal communication. With longitudinal results underway, this study already uncovered different social behavior profiles for bvFTD, SD and AD. This research demonstrates that brief excerpts of social interactions could reveal disease-specific profiles, and underscore the importance of social and emotional observations in differential dementia diagnosis.

**Preserved behavioural performance and global network characteristics in the emotion network following anterior temporal lobectomy**

*Yun-An Huang, Patrick Dupont, Laura Van De Vliet, Jan Jastorff, Tom Theys, Johan van Loon, Wim Van Paesschen, Mathieu Vandenbulcke & Jan Van den Stock*

Humans with amygdalar lesions show proportional reductions of the emotional response to facial expressions in the fusiform face area as well as deficits in emotion recognition from facial expressions. While processing of bodily expressions shares many similarities with facial expressions, there is no substantial evidence that lesions of the amygdala result in similar behavioral and neural sequellae. We
combined behavioral assessment with functional neuroimaging in patients with unilateral anterior temporal lobe (ATL) resections including the amygdala (right: n=10; left: n=10) and 12 matched controls. The objective was to assess whether the amygdala is critical for the recognition of body expressions and for modulatory effects on distant areas during perception of body expressions. The behavioral results revealed normal performance in both patient groups on emotion categorization of body expressions. The neuroimaging results showed that ATL patients displayed no enhanced activations in right FBA and left EBA and that left ATL patients additionally displayed no enhanced activations in right pSTS and right EBA. Multi-voxel pattern analysis (MVPA) revealed altered categorization capacity between emotional and neutral stimuli in right pSTS in right ATL patients. Graph analysis revealed preserved global network characteristics in the patient groups. Taken together the results indicate that the amygdala and anterior temporal lobes are not necessary for recognition of dynamic body expressions, but suggest that amygdala lesions affect body emotion processing in distant brain areas, without affecting the global network characteristics, consistent with psychological construction accounts of emotion.

Cortical and subcortical contributions to facial expressivity and arousal: Evidence from frontotemporal dementia

Fiona Kumfor, Jessica L Hazelton, Jacqueline A Rushby, John R Hodges & Olivier Piguet

Early theories of emotion processing propose an interplay between autonomic function and cognitive appraisal of emotions. Patients with frontotemporal dementia show profound social cognition deficits and atrophy in regions implicated in autonomic emotional responses (insula, amygdala, prefrontal cortex), yet objective measures of facial expressiveness and physiological arousal have been relatively unexplored. Here, we investigated psychophysiological responses (surface facial electromyography (EMG); skin conductance level (SCL)) to emotional stimuli in 23 behavioural-variant frontotemporal dementia (bvFTD) patients, 14 semantic dementia (SD) patients and 22 healthy older controls, while viewing emotional video clips. Voxel-based morphometry was conducted to identify neural correlates of psychophysiological responses. Our results showed that unlike controls, patients with bvFTD did not show differential facial EMG responses according to emotional condition, whereas SD patients showed increased zygomaticus EMG responses to both positive and neutral videos. Controls showed greater SCL when viewing positive and negative videos, however, both bvFTD and SD groups showed no change in SCL across conditions. Dampened zygomaticus EMG response to positive films was associated with reduced right insula integrity, whereas reduced arousal was associated with lower integrity of the caudate, amygdala and temporal pole. Our results demonstrate that while bvFTD patients show an overall dampening of responses, SD patients appear to show incongruous facial emotional expressions. Abnormal responding is related to cortical and subcortical brain atrophy. These results identify potential mechanisms for the abnormal social behaviour in bvFTD and SD, and demonstrate that psychophysiological responses are an important mechanism underpinning normal socioemotional functioning.
Humans have evolved to function optimally in social relationships. Social proximity saves the brain cognitive energy that it would otherwise need to track potential threats, real or imagined (e.g., Coan et al., 2006). A lack of social resources, and rejection sensitivity in particular, leads to depression, anxiety and a whole host of stress-related physical illnesses. We are developing new, game-based approaches to boosting children’s stress-resilience by targeting rejection sensitivity. Importantly, before testing the effectiveness of these new social training regimes, we need to design reliable and effective measures that tap individual differences in rejection sensitivity and its regulation. We designed a game-based, stealth approach to assess rejection sensitivity and its behavioural concomitants, avoidance and aggression. This approach allows us to go beyond self-report responses, to track dynamic, real-time behavioural and emotional responses to social stressors. In two studies, we examined young people's cognitive, emotional and behavioural responses to social rejection over the course of 1-hour of gameplay. Results showed: (a) reliable emotional responses (avoidance, aggression) to specifically designed rejection episodes in the game; (b) associations between emotional and behavioural responses to rejection and anxiety/depressive feelings; and (c) our game-based approach significantly outperformed the most widely implemented assessment task for rejection, Cyberball (Williams & Jarvis, 2006; e.g., predicting higher feelings of rejection and exclusion, while also being rated as more engaging and immersive). The implications of these findings for designing video games that mimic the psychobiological buffering effects of social proximity and boosting emotional resilience will be discussed.

**Associations between disengagement use and well-being: when and for whom?**

★ Kalee De France & Gary Evans

A heavy reliance on disengagement strategies to manage emotional experiences is consistently associated with lower levels of well-being. Nascent research has suggested that socioeconomic status (SES) may influence the associations between regulatory strategy use and well-being, however, it remains unclear whether SES affects the association between disengagement use and well-being, and whether this impact remains consistent across development. The current study used a longitudinal methodology to investigate whether the association between disengagement use and well-being was moderated by SES, as well as whether or not this impact remained consistent across adolescence and into adulthood. Participants included 343 early adolescents (mean age: 13) who were retested during late adolescence (mean age: 17) and adulthood (mean age: 25). Results showed that SES significantly moderated the association between disengagement use and internalizing symptoms during early adolescence and adulthood, but not late adolescence. During early adolescence and adulthood, individuals in a lower SES had a stronger association between disengagement use and internalizing symptoms. SES also significantly moderated the association between disengagement use and externalizing symptoms, but only during early adolescence. Early adolescents in a lower SES showed a stronger association between disengagement use and externalizing symptoms. Theoretical and clinical implications will be discussed.
Taking Emotional Support to the Text Level: Digital and In-person Support and Successful Emotion Regulation

Tom Hollenstein

Successful regulation of emotions is greatly facilitated by social support, which is positively related to overall well-being and relationship quality. With the rapid increase in the use of information and communication technologies, much social support is now received digitally rather than in person, which involves different methods of interacting with others. However, we currently have scant understanding of the impact of digital support on emotion regulation and whether it differs from support received in person. The current study examined the indirect effects of seeking and receiving emotional support both digitally and in-person on the relationship between the intensity of emotions and the success of emotion regulation. One-hundred and seventy-one youth who just arrived for their first year of university completed a smart phone experience sampling app three times a day for two weeks to answer questions about their emotions and emotional support. For the present study, we tested whether the direct relation between emotion intensity and emotion regulation success was mediated by digital and in-person social support. Using a multi-level indirect effects model with sampling prompts nested within individuals in MPlus, we will show that there is an overall indirect effect of social support facilitating greater success in down-regulating negative emotions. Importantly, we will show both specific indirect effects of digital and in-person support. Discussion will focus on the need to better understand how digital social contexts might provide long distance support, especially during emotional challenges of novel situations away from home.

A Media Theory on the Performances of Emotions as Functions in Interaction, Organization, and Society

Robin Kurilla

The literature entrusts emotions in manifold ways with social functions. There is, however, one common denominator: the notion that emotions mediate. In order to organize the plethora of functionalist accounts of emotions around a unifying point of reference and to create a base for cross-cultural comparisons, this paper depicts emotions as media, drawing upon, among others, Luhmann, Hegel, and Aureli. Instead of functions, however, the emphasis lies on the performances of emotions because it remains unclear on a general level whether or not these performances are functional. Simmel’s depiction of fear as a means to enhance cohesion does not necessarily evoke functionalist connotations, as fear-induced cohesion reduces the degree of individual freedom as well as the variability of the group as a whole and may even be viewed as a threat by outsiders. Moreover, the performances of emotions as media have to be identified before examining whether they act as functions on different levels of analysis such as interaction, organization, and society. Generally speaking, emotions can be considered media in a threefold sense. They mediate guidance, sociation, and/or success. Within these types of performances, more discriminative distinctions can be drawn. As media of sociation, e.g., emotions contribute to structuring social entities. This may be achieved by providing the foundations for certain interaction models such as loving intimate communication or angry quarrels, by enhancing social cohesion, by
creating inter-emotionality as the base for intersubjectivity or as the affective fundament of social entities, by the emotional fabrication of identity and distinction, etc.

**Emotional responses to sexual violence: influence of previous sexual experiences, severity and gender**

Marta Garrido-Macías, Inmaculada Valor-Segura & Francisca Expósito

Sexual aggression is one of the most humiliating forms of gender-based violence and produce severe emotional consequences. This research analyzes the influence that previous sexual victimization/perpetration, severity and gender have on emotional responses to a sexually risky scenario. In study 1, it was predicted that women will experience more negative emotions when the sexual aggression increase (Hypothesis 1a) and when they are victims (vs. nonvictims) (Hypothesis 1b). In study 2, it was expected men will experience more negative emotions when the sexual aggression increase (Hypothesis 1a) and when they are nonperpetrators (vs. perpetrators) (Hypothesis 1b). Finally, in study 3, men will experience less negative emotions than women when the sexual aggression increase (Hypothesis 1).

College women (N=150) and men (N=98) completed a computer task in which they watched a video about a couple scenario that ended in a woman having unwanted sex with her male partner. Participants answered regarding their emotions in three temporary moments (baseline, time 1 and time 2), and their previous experiences of sexual victimization/perpetration. Results showed that victims had more negative emotional responses than nonvictims, but no differences were found between perpetrators and nonperpetrators. Moreover, women and men had more negative emotions when sexual aggression increased in severity. Finally, men had less negative emotions than women when the severity of the sexual aggression increased. Overall, the results indicate that previous sexual victimization/perpetration and the severity of the sexual aggression may be related to emotional responses to threatening sexual situations.

**European Medieval Passion Plays as Opulent Sources for Emotion Research**

Ivan Missoni

Medieval passion plays, particularly through their main protagonists, Christ and the Virgin Mary, conveyed as well as elicited abundant expressions of compelling emotions, both positive and negative. They constituted one of the most popular and influential dramatic genres of the Middle Ages, which flourished from the 14th until the 16th century, and was spread throughout most of Catholic Europe, ranging from the Iberian Peninsula in the west, Scandinavia in the north and the Balkans in the southeast. Since they were performed on stage during the Holy Week, concurrently with the appropriate religious observances and processions (both liturgical and concerning popular piety), they thus had a pivotal moral-didactic role in religious education of the faithful. Functioning as paradigmatic emotion scripts capable of generating intense emotions, hence prompting the audience attending passion plays to form ad hoc emotional communities, I would argue that the aforementioned texts by means of discipling discourses on Christ’s passion and Mary’s compassion had also set an edifying and uplifting example of
how in Christian thought and practice to properly love each other and love God.

**Imagining the Hangover: The Role of Anticipated Regret in Avoiding Binge Drinking**

Erika Koch

Anticipated regret is a “cognitive emotion” – one that involves both thinking about the future and imagining potential feelings. Previous research has demonstrated that anticipated regret plays a role in various health and safety behaviors; however, little research has examined anticipated regret in the context of binge drinking. Does anticipated regret predict intentions to avoid binge drinking and, in turn, do these intentions predict self-reported binge drinking one month later? The present research tested this question. In Study 1 (a pilot), 109 undergraduates completed an online measure assessing their personal definitions of binge drinking, as well as a measure tapping extended Theory of Planned Behavior variables: attitudes, subjective norms, perceived behavioral control, descriptive norms, past behavior, and anticipated regret. In Study 2, 168 undergraduates completed a revised version of the Study 1 measure. In addition, 67 of these participants reported one month later on whether they had engaged in binge drinking over the past month, and if so, the number of binge-drinking days. Means of all Time 1 variables did not significantly differ between participants who did vs. did not provide Time 2 data. In both studies, anticipated regret for failing to avoid binge drinking significantly and uniquely predicted intentions to avoid binge drinking. In Study 2, intentions predicted self-reported binge drinking behavior. Although past drinking behavior most strongly predicted intentions, this variable is not amenable to change. Thus, anticipated regret may offer a promising intervention target, as it is malleable.

**The role of audio-visual features in emotional and empathic responses to movies**

* Katalin Balint, Yunting Huang, Mattia Savardi & Sergio Benini

Fiction films are powerful and widely used tools to elicit emotional responses in viewers. Yet, it is still unclear how the design components of movies, that is the way how the audio-visual moving image is constructed, influence viewers’ emotional responses. The present study is an interdisciplinary collaboration among scholars in media psychology and computer science to identify those formal features in audiovisual fictional narratives that have an impact on viewers’ emotional responses. In this study, fifteen film scenes from three genres were selected and analyzed for audio-visual formal features, including metrics of shot scale, color, lighting, motion dynamics, and music, assumed to be important to the emotional identity of a film scene. For the audiovisual analysis we employed computer algorithms to examine these features on a frame-by-frame basis. With the same set of film 15 film scenes a 3 (genres; action vs drama vs romance) x 5 (film) within-subject experiment was conducted (N = 75). Arousal and valence responses were continuously recorded by FaceReader while participants were watching the 15 film scenes. After each scene, participants filled in a short state empathy scale. Data is analysed (in progress) by cross-correlational analyses to test whether the time-series pattern of emotional valence and
arousal in viewers is associated with the pattern of audio-visual formal features. Furthermore, in a regression analysis we investigated if the formal features can predict empathy responses. Findings will generate new knowledge for a theoretical model on the interaction of formal and content features in media-elicited emotional responses.

**Increased dorsomedial prefrontal cortex activity to negative emotion displays in men but not in women**

*Diana S. Cortes, Kristoffer N.T. Månsson, Amirhossein Manzouri, Petri Laukka, Natalie Ebner & Håkan Fischer*

The neuropeptide oxytocin plays a prominent role in social and emotional cognition. Findings suggest that exogenous intranasal oxytocin administration facilitates emotion recognition in humans, but individual and contextual differences may have moderating effects. A major caveat in this line of work is that it is predominantly based on young males, which limits current knowledge and potential for generalizability across gender. To uncover potential gender effects, the present study included younger and older men and women. Utilizing a randomized, double-blind, placebo-controlled, within-subjects study design, we investigated the effects of a single-dose of 40 IUs intranasal oxytocin administration on emotion recognition of dynamic positive and negative stimuli in 32 men (mean age 45.78, sd. 22.87) and 39 women (mean 47.87, sd. 47.87), 40 minutes prior to MRI scanning. Preliminary analyses show that oxytocin induced brain activity reductions during exposure to negative (relative to positive) stimuli in women, while increasing brain activity in dorsomedial prefrontal cortex in men. The findings suggest that the effects of oxytocin on emotion recognition may be related to emotion regulation and mentalization processes, and that oxytocin is related to potential sex-differences in these processes. The results also raise concern that previous oxytocin literature on emotion recognition may be biased as there appears to be gender-differential effects of oxytocin on brain activity across adulthood that have been underestimated. In the next stage of the present study, we will investigate the interaction effects among treatment, sex, age, and presentation modality.

**Emotions, Understanding Minds, and Social Interaction**

*Daniel Vanello*

Recent accounts in both Philosophy and Developmental Psychology argue that social affective interactions –e.g. mother–infant attachment, sibling interaction, school peers interaction- play an essential developmental role in the ability to understand other minds (e.g. Vasu Reddy; Noami Eilan). The aim of this presentation is to argue that if affective social interaction is to be conceived as an essential developmental component of our ability to understand other minds, then we need to commit to a view of the emotions as constituted by our behavioural/bodily responses and action tendencies (Nico Frijda; Fabrice Teroni). I support my thesis by relying on longitudinal studies linking the emotional quality of
infant-caretaker attachment to the quality of the child’s emotion understanding 4-6 years later (e.g. Peter Fonagy; Paul Harris). I argue that these studies suggest that the acquisition of the child's understanding of emotions involves the child’s learning to match his/her emotions to the caretaker’s appropriate behavioural response and action tendencies when interacting with one another e.g. when playing with the caretaker, the child matches his/her joy with experience of caretaker’s joyful action tendency. The child's experience of matching his/her emotions with the caretaker’s appropriate action tendencies is also what allows the child to acquire emotional self-regulation. The upshot is that unless we view emotions as constituted by our behavioural responses and actions tendencies, we cannot explain why social affective interaction plays an essential developmental role in understanding other minds.

Are bodily feelings necessary for emotion? Testing William James’ subtraction argument

Rodrigo Díaz

In his influential 1884 paper ‘What is an emotion?’, William James famously claimed that if we imagine a ‘full’ emotion episode and subtract all the bodily feelings that it involves, there is no emotion left. The conclusion that is extracted from this thought experiment is well known: emotions are nothing but perceptions of one's own bodily changes. This is known as the “subtraction argument”, and it is still a central argument in contemporary neo-Jamesian accounts of emotion (Deonna and Teroni, 2017; Prinz, 2003). The other main line of evidence for the theory, which involve the study of cases of impaired interoception (Laird, 2014), is inconclusive, as it is argued that the brain can simulate the feeling of bodily changes in the absence of actual bodily changes (Damasio, 1994). Here, I present results from a pre-registered study which show that, contrary to James’ intuitions in the subtraction argument, most participants in the study (77%) considered that their emotions would persist after subtracting the bodily feelings from it. Participants’ responses were independent of individual differences in interoception (PBCS) and cognitive reflection (CRT). Apart from showing the invalidity of the subtraction argument, I argue that these results regarding people's understanding of emotion could be relevant for the question of whether bodily feelings are actually necessary for emotion. My main argument is based on the fact that studies investigating the bodily correlates of emotion largely depend on participants’ emotional self-reports, and these in turn depend on participants’ understanding of emotion.

Sensorimotor simulation impacts behavioral response choice: Evidence from the masked emotion misattribution procedure

Michaela Rohr, Timea Folyi & Dirk Wentura

Emotional stimuli are known to be interpreted quickly and automatically, even if they are not consciously seen. It is, however, still debated how specific (i.e., valence or more) and based on what processes these stimuli can be processed under masked presentation conditions. We developed an implicit behavioral measure, the emotion misattribution procedure (Rohr, Degner, & Wentura, 2015) - an adaptation of the
affect misattribution procedure - to investigate these questions. Participants’ task is to classify neutral target faces according to the allegedly shown emotion category (joy, fear, anger, or sadness). Preceding these neutral targets, clearly emotional prime stimuli are presented. With this paradigm, we have already shown that masked emotional faces can lead to masked misattribution effects beyond valence (Rohr, Degner, & Wentura, 2015). Moreover, we found evidence that physiological processes, as indexed by facial muscle responses, influence the choice of the behavioral response (Rohr, Folyi, & Wentura, 2018). Building up on this earlier work, the present research investigates the involvement of physiological processes in more detail. To this aim we assessed facial muscle activity in addition to behavioral responses in the masked misattribution task with five emotions, that is, participants had to decide which of five emotions (i.e., joy, anger, fear, disgust, sadness) would be allegedly shown by a neutral target face. Results show that the masked primes trigger behavioral as well as facial muscle responses. The pattern of results is most compatible with a sensorimotor simulation view.

Leaders’ positivity and use of naturally felt emotions: Valuable emotion regulation strategy associated with mental well-being

Annie Haver & Kristin Akerjordet

Content/Purpose: Emotions play a vital part and are crucial determinants of how well we function in everyday life. If emotions occur at the wrong time or at the wrong intensity they can hurt rather than help, and can thus diminish leaders’ mental well-being. The extent to which this happens probably depends on the type of emotion regulation strategies they use to manage their emotions. Leaders who are enthusiastic and energetic are likely to create a positive emotional environment, enhancing employees’ well-being. Conversely, leaders who display negative emotions may influence their employees negatively.

Design/Methodology: Online self-report questionnaire was used to collect data from 246 Swedish leaders (71% response rate). Data were analyzed using regression analyses and mediation analyses using PROCESS Model. Results: Data confirmed a positive effect between positive emotions and mental well-being and a negative effect of negative emotions on mental well-being. Findings suggest that natural felt emotions is an adaptive regulation strategy because it partially mediates the positive relationship between positive emotions and mental well-being. Suppression was found to be harmful because it partially mediate the negative relationship between negative emotions and mental well-being. This suggest that leaders’ positivity and use of naturally felt emotions is a valuable emotion regulation strategy associated with mental well-being. Limitations: The major limitation is use of cross-sectional self-report data.

Research/Practical Implications: The study has implications for further studies and for developing management training. Originality/Value: Contributes to the limited literature on leaders’ emotion regulation and mental health/well-being
Inter-individual differences in achievement motivation modulate Pavlovian aversive learning to goal-relevant stimuli

* Yoann Stussi, Aude Ferrero, Gilles Pourtois & David Sander

Pavlovian aversive conditioning is a fundamental form of learning that helps organisms survive in their environment. Past research has suggested that organisms are predisposed to preferentially learn to fear stimuli that provided threats to survival through the evolution of the species. Here, we sought to determine whether stimuli that are relevant to the organism's concerns beyond biological and evolutionary considerations can also be preferentially conditioned to threat, and whether such preferential learning is modulated by inter-individual differences in affect and motivation. To do so, we experimentally manipulated the goal-relevance of initially neutral stimuli in a spatial cueing task, and subsequently used them as conditioned stimuli in a differential Pavlovian aversive conditioning paradigm, while examining the influence of participants' achievement motivation thereon. Results indicate that achievement motivation modulated Pavlovian aversive learning to goal-relevant versus goal-irrelevant stimuli. Participants with high achievement motivation more readily acquired a conditioned response to goal-relevant relative to goal-irrelevant stimuli, thereby reflecting a learning bias, than did participants with lower achievement motivation. Taken together, these findings suggest that stimuli that are relevant to the organism can induce faster Pavlovian aversive conditioning despite holding no inherent biological evolutionary significance, and that the occurrence of such learning bias hinges upon inter-individual differences in the organism's concerns, such as achievement motivation.
Not to my kin: Anger, disgust and aggression as responses to sibling versus stranger harm

Karie Moorman, Lukas Lopez, Sara Schneider, Melissa Baker & Colin Holbrook

Angry reactions to moral violations should be heightened when wrongs befall oneself in comparison to when wrongs befall strangers, as prior research by Molho and colleagues (2017) demonstrates, because aggressive confrontation is inherently risky and therefore only incentivized by natural selection to curtail significant future fitness costs (Tooby & Cosmides, 2008). Since it is known that individuals are likely to incur costs to aid kin (Stewart-Williams, 2007), we extend this functional perspective to cases of wrongs inflicted on siblings. In two pre-registered studies, we utilized vignettes previously used to evoke moral anger and disgust (Molho et al., 2017), and added a condition where one's sibling was victimized. A significant interaction between scenario target and emotion was found (Study 1a: F[2, 462] = 11.23, p < .001; Study 1b: F[2, 565] = 7.79, p < .001). Specifically, we observed equivalently heightened anger in response to transgressions against either oneself (ps < .008) or one's sibling relative to transgressions against strangers (ps < .009), whereas transgressions against strangers evoked greater disgust (associated with social avoidance) (p = .006). In our second study, we found that the elevated anger reported in response to self or sibling harm relative to stranger harm partially mediated heightened inclinations to directly confront the transgressor (b > .04, ps < .001). These overall results broadly replicate Molho et al.’s findings and theoretically extend the sociofunctionalist evolutionary account of moral emotions to kinship. Forthcoming studies assess how political orientation factors into moral emotional responses to violations targeting one’s in-group.

Data-driven approach reveals universal patterns in colour-emotion associations across 30 nations

Domicile Jonauskaite, Nele Dael, Ahmad Abu-Akel, Daniel Oberfeld, Jörg Wicker, Lausanne International Colour Survey & Christine Mohr

While symbolic meanings of colour might be the making of cultural customs (e.g., white vs. red worn at weddings in Western world vs. China/Japan), little is known whether emotion associations with colour are also culture-specific, or rather universal. We performed a comprehensive, systematic survey on conceptual colour-affect associations in 30 countries (N = 4,598; males = 1,114; mean age = 35.63 y.), completed in individuals’ respective native languages (https://www2.unil.ch/onlinepsylab/colour/main.php). Participants associated 12 colour terms with one, several, or none of 20 emotion concepts presented on the Geneva Emotion Wheel, organised along the axes of valence and power. Most colours were associated with several emotions, usually of similar valence and/or power. There were only a few associations with discrete emotions (e.g., RED and love, RED and anger, BROWN and disgust). To test for cross-cultural effects, we computed association matrices on the likelihood of associating 12 colour terms with 20 emotions for each country. Colour-emotion associations of individual countries were relatively close to the colour-emotion associations of the “global” matrix (average likelihood); similarity was the highest for Spain (94.1%) followed by 14 additional countries with a similarity level of ≥ 85%. High similarity was reported on other measures too. Nevertheless, a machine-learning algorithm could predict participants’ country of origin with accuracies above the chance level. The confusions mainly occurred between countries that were neighbours or used the same language. Our results suggest there is
a high inter-country agreement on the affective connotations of colour terms with some cultural specificities.

**The Prosocial Effects of Moral Elevation in Childhood**

Shazza Ali, Dominic Abrams & Julie Van de Vyver

Moral elevation is a positive emotion that is felt in response to acts of moral beauty (e.g. kindness, compassion, forgiveness and sacrifice). The state of elevation is embodied by feelings of warmth and openness, as well as feelings of inspiration, love, and the motivation to better the self and engage in virtuous acts for the benefit of others (Haidt, 2003; Van de Vyver & Abrams, 2017). Empirical research shows that moral elevation – induced via viewing acts of moral beauty – can effectively promote prosocial outcomes among adults (e.g., Van de Vyver & Abrams, 2015). The present research examines whether and how moral elevation promotes prosocial responses in childhood. In two studies we test the hypothesis that the effects of elevation-inducing (vs. control) stimuli on feelings of elevation and prosocial responses should increase as children develop through middle childhood between the ages of 5-11-years. Elevation-inducing stimuli significantly increased children's feelings and appraisals of moral elevation and their prosocial motivation (Study 1, N = 91). Levels of moral elevation decreased with age and prosociality increased with age. Across age, moral elevation significantly increased children's prosociality toward outgroup members (Study 2, N = 125). The findings suggest that elevation can be an effective tool for promoting prosociality during middle childhood. Theoretical and applied implications are discussed.
**Predicting moral judgments using facial muscle activity: United Kingdom, New Zealand, and Hong Kong**

* Pete Cannon, Emma Buchtel, Alexander Bidwell & Leo Ng

Moral judgments have been demonstrated to cluster into five concerns or foundations (Graham, Haidt, & Nosek, 2009). Previous research using facial electromyography found that in a UK sample muscle activity while listening to and thinking about 90 statements split into good and bad behaviours across the five moral foundations predicted later subjective moral judgments of these same behaviours (Cannon, Schnall, & White, 2011). There was no single facial muscle’s activity that predicted judgments across all foundations, but contemplating statements that involved harm increased activity of corrugator supercillii (knitting the brow to frown), unfairness increased activity of the levator labii muscles (wrinkling the nose), and purity violations resulted in a full face disgust expression (corrugator supercili and levator labii). We present a direct replication with data collected in New Zealand (N=30) and Hong Kong (N=40) along with a re-analysis of the original data (N=37). Analyses using Bayesian Mixed Models supports the original study’s finding that facial muscle activity can predict subjective judgments, but the new data and re-analysis finds that the muscles that predict negative judgments vary by culture.

**Emotion regulation repertoire: a multilevel latent profile analysis**

* Gloria Grommisch, Peter Koval & Tanja Lischetzke

In the research field of emotion regulation (ER), the concept of ER-flexibility has been introduced as the person’s ability to use appropriate ER-strategies, depending on the situation’s requirements. One component of ER-flexibility is the ER-repertoire—the ability to use a wide range of ER-strategies that might accommodate different situational demands. A broader repertoire is assumed to favor functional ER. In the past years, repertoire has been examined by means of global judgements on dispositional ER and not yet by repeated measures of momentary ER-strategies. Our aim was to analyze ambulatory assessment data by means of multilevel latent profile analysis (ML-LPA) to identify different profiles of momentary ER-strategies and to test whether individuals with a broader ER-repertoire across situations report higher well-being. 179 Australian residents were prompted on their smartphones up to 16 times a day for 25 days to fill out short surveys on how they handled their emotions since the last survey. By means of ML-LPA of the ER-strategies, nine profiles on situation level and five profiles on person level were identified. Four situation-level profiles differed mainly in level (e.g., no use of any vs. strong use of all strategies). The other situation-level profiles differed in the specifically preferred ER-strategies. On person level, individuals differed in the probability with which they applied different ER-profiles across situations (e.g., a class of individuals using different ER profiles vs. a class using predominantly one profile). Analyses with covariates revealed that person-level classes differed in terms of life satisfaction, stress, anxiety and depression.
Emotional-Wellbeing Mediates and Moderates the Impact of Early Adversity on Speed of Biological Aging

Ronald Simons & Leslie Gordon Simons

Dramatic growth in the number of older adults throughout the world has placed explanations for inequalities in healthy aging (discrepancies between chronological and biological age) at the forefront of the public health agenda. Most research on this issue has focused on older samples, leaving the question of whether disparities in speed of aging are already evident in early adulthood. Using a sample of 500 Black Americans, the present study uses 7 waves of data to assess exposure to racism, neighborhood disadvantage, school failure, and family conflict throughout childhood, adolescence, and early adulthood in order to investigate the effect of cumulative adversity on speed of aging at age 30. Further, we assess the extent to which the associations between cumulative adversity and accelerated aging are mediated/moderated by an individual’s emotional well-being (optimism and the absence of negative emotions vs. pessimism, anxiety, depression, and anger). A recently developed gene expression index of biological aging based upon 1497 genes was used to assess accelerated aging. Findings indicated a strong association between cumulative social adversity and adult accelerated aging that was mediated by emotional well-being. Importantly, however, emotional well-being also moderated this association such that there was a strong relationship between adversity and accelerated aging for those low on emotional well-being whereas adversity had no impact on accelerated aging when individuals scored high on emotional well-being. This suggests that emotional well-being can operate to buffer individuals against the deleterious effects of cumulative adversity on speed of aging.

Charting the Full Appraisal-Emotion Space with Parallel Process Latent Profile Analysis

Weiqiang Qian, Craig A. Smith & Leslie D. Kirby

The associations of appraisals to the experience of individual emotions have long been studied. However, individual emotions are almost never experienced in isolation, and there are few data examining the patterns of appraisals associated with the blends of emotion typically experienced in real life. Using latent profile analysis on an aggregated dataset (N=3761) containing appraisal and emotion ratings across a wide range of emotion-eliciting situations, we extracted five appraisal profiles and five emotion profiles. These profiles represent the major patterns of appraisal and emotion, respectively, that were elicited across the sampled situations. The relations between these appraisal and emotion profiles were examined by combining the two sets of latent profile analysis with a parallel process model. A chord diagram was produced to visualize the links between the appraisal and emotion profiles, and to facilitate interpretation. The appraisal and emotion profiles were found to be systematically related to one another in ways that can be meaningfully explained by appraisal theory. For example, an appraisal profile emphasizing other-accountability was strongly linked to an emotion profile emphasizing other-directed negative emotions, and an appraisal profile emphasizing motivational congruence was associated with an emotion profile emphasizing positive emotions. Our analyses depict the ecologically valid relations among combinations of appraisals and emotions typically experienced during emotional encounters.
The Effect of Relevance Appraisal on the Emotional Response

Larisa Olteanu & Assaf Kron

Appraisal theories assume that an emotional response is preceded by an evaluation phase that assesses the stimulus’ relevance to the perceiver’s well-being. Although the effect of relevance on the emotional response is supported by empirical findings, it has been proven difficult to control and manipulate. The current study’s primary goal is to experimentally manipulate the relevance of stimuli while ensuring that its physical properties remain unchanged. To this aim, we used stimuli with high ecological validity: participants (N=40, 26 females) were about to learn their Israeli Psychometric Entrance Test (PET) score (the equivalent of USA’s SAT/ACT score - highly important for acceptance to university programs) for the first time during the experimental session. Emotional response was measured using facial electromyography (EMG), heart rate (HR), electrodermal activity (EDA), and reported experiences (self-reports). We found a substantial effect for manipulated relevance on self-reports, and HR, but not for EMG. The results provide evidence that information about a stimulus’ relevance modulates the emotional response to it.

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Shared Environment Effects on Children’s Emotion Recognition

Rotem Schapira, Hillary Anger Elfenbein, Meirav Amichay-Setter, Carolyn Zahn-Waxler & Ariel Knafo-Noam

Emotion recognition (ER) is the ability to understand and recognize others’ emotions using cues such as facial expressions and tone of voice. The ability to recognize emotions is crucial for social interaction. Little is known about how this ability develops throughout childhood, and specifically the background for individual differences. The present study expanded the field by examined genetic and environmental influences on children’s ER via facial and vocal cues in 344 7-year-old (90.05 ± 3.87 months) twin children (59 MZ pairs and 113 same-sex DZ pairs), who were part of the Longitudinal Israeli Study of Twins. ER was assessed with the child version of the Diagnostic Assessment of Nonverbal Accuracy (DANVA2, Nowicki, 2010). Twin correlations were not higher for MZ twins than for DZ twins, indicating no heritability for ER in this population, for either facial and vocal cues of emotion. In contrast, correlations were positive for both types of twins and somewhat higher for DZ twins, indicating a shared environmental effect, which has been supported by a bivariate genetic analysis. The models showed no genetic (A) effect but did show shared-environment (C) and non-shared environment (E) effects on ER. This pattern was robust to controlling for twins being of the same sex and age. In addition, a bivariate genetic analysis found a shared environmental correlation between facial and vocal ER (rc=.63), indicating that the shared environmental factors contributing to vocal and facial ER overlap. The study highlights the importance of the shared environment to children’s ER.

POSTERS 2  ☘️July 12th  ☕️13:00—14:30  🆆️Main hall  # 32
Time to take enthusiasm seriously!

• Rijn Vogelaar, Wilco van Dijk & Eric van Dijk

Enthusiasm is a commonly used term in daily language as well as in professional settings. It plays an important role in people’s personal lives and organisations want to recruit enthusiastic employees and create enthusiasm amongst their customers. Scientific research on enthusiasm, however, is scarce and the concept is not clearly defined. The few studies that can be found on enthusiasm show, for example, that it enhances the performance of teachers, call center agents, and instructors. The current research aims at providing a richer and more specific understanding of enthusiasm and its core characteristics. To gain more insight in the phenomenon of enthusiasm, we conduct a prototype analysis, using five empirical studies that include broad samples of respondents. In Study 1, we generate the different features of enthusiasm. In Study 2, we quantify the centrality of the different features. In Study 3, we validate the prototype structure of enthusiasm by using a recall test. In Study 4, we validate the prototype structure by measuring response accuracy and speed. In Study 5, we test the ecological validity of the prototype structure by using autobiographical recall. Results of these studies will be presented and discussed in relation to the existing literature on enthusiasm. Data collection will be completed in the spring of 2019.

Neural and behavioral trajectories of associative learning

• Louisa Kulke, Alex Lepauvre & Annekathrin Schacht

Inherently neutral or unfamiliar objects have been shown to acquire gain- or loss-associations through learning, leading to changes in behavioral and neural responses to these objects. However, the mechanisms underlying these learning processes are still unclear. The current study tested 24 participants in a learning paradigm, in which pseudowords were associated with monetary gain, monetary loss or no outcome (8 pseudowords per category). In a learning session, participants had to classify which outcome category each of the pseudowords belonged to through a manual response. In a test session on the subsequent day, participants were asked to distinguish the previously associated words from novel distractors in an old/new decision task. The design was fully counterbalanced. Event-related potentials (ERPs), pupil diameter and behavioral responses were measured during the learning and test session. Changes in these measures over time were investigated using a moving-window technique. The models show that, on the behavioral level, associations with gain are learned fastest, differing from loss and neutral associations in the first half of the learning session, while all associations were equally well learned during the second half of the learning phase. On the neural level, P1 amplitude in ERPs also differed between gain-associated and neutral stimuli early during the learning session. These findings suggest that gain association facilitates learning behavior and the related neural responses already very early during learning, possibly related to an attentional enhancement of reward-related stimuli.
Fast periodic visual stimulation EEG reveals lower neural sensitivity to expressive faces in ASD

Stephanie Van der Donck, Sofie Vettori, Milena Dzhelyova, Jean Steyaert, Bruno Rossion & Bart Boets

Individuals with autism spectrum disorder (ASD), who are characterized by deficits in social communication and interaction, often struggle with quick and adequate facial emotion recognition. Considering the abundant mixed behavioral results on emotion processing in ASD, we combined fast periodic visual stimulation with electroencephalography to examine the implicit neural sensitivity of school-aged boys with ASD versus matched controls to brief changes in facial expression. By periodically presenting neutral faces at 6 Hz and expressive faces at 1.2 Hz, we can determine the implicit neural sensitivity for expressive face detection in between a stream of neutral faces by quantifying the periodic brain response at the oddball frequency. A fixation cross orienting the participants’ attention towards the eyes or mouth allows us to investigate which facial feature enhances rapid emotion detection and whether this differs between ASD and controls. The employed processing styles (feature-based/global) for expression detection were examined by presenting the faces upright and inverted. Results show a lower neural sensitivity in ASD for fearful and angry faces, suggesting a rather specific emotion detection deficit in ASD instead of a general deficit. Reduced responses for inverted faces indicate that inversion affects emotion detection in both groups, hampering global processing. Both groups benefited most from the mouth information to rapidly detect emotional faces. We will complement these results with eye tracking data of two explicit tasks to examine whether the mouth indeed is the most important facial feature for emotion processing and whether this differs for implicit/explicit or low-level/higher-level expression processing.

Autonomous Robots as Embodied Models of Affect-Related Mental Disorders

Matthew Lewis & Lola Canamero

What can autonomous robots tell us about affect-related mental disorders? Computational psychiatry, which aims to introduce novel approaches and mathematical and computational tools to investigate neural circuit mechanisms underlying the cognitive and behavioral features of neuropsychiatric disorders, is establishing itself as a valuable discipline for understanding human mental disorders. However, robot models and their potential for investigating embodied and contextual aspects of mental health have been, to date, largely unexplored, both in computational psychiatry and the affective sciences. In this talk, we will present an initial robot model of obsessive-compulsive (OC) spectrum disorders based on an embodied affect-based (where affect includes motivation and emotion) model and control architecture for decision making in autonomous robots. The OC family of conditions is chiefly characterized by obsessions (recurrent, invasive thoughts) and/or compulsions (an urge to carry out certain repetitive or ritualized behaviors). The design of our robot model follows and illustrates a general design framework that we have proposed to ground research in robot models of mental disorders, and to link it with existing methodologies in psychiatry, and notably in the design of animal models. To test and validate our model, we present and discuss initial experiments, results, and quantitative and qualitative analysis regarding the compulsive and obsessive elements of OC-spectrum disorders. While this initial stage of development only models basic elements of such disorders, our results already shed light on
aspects of the underlying theoretical model that are not obvious simply from consideration of the model.

**Connecting autonomic physiology to emotion regulation: The perspective of a dynamic approach**

* Roman Rutka, Vaida Verhoef, Sonia Pellissier & Pascal Hot

Current models describe the birth of an emotion as a progressive phenomenon in which a succession of several events takes place, leading to the emergence of an affective state. At each different step of this chain of events, some regulation mechanisms can intervene in order to modulate the experienced emotion. The study of Emotion Regulation can therefore benefit from taking into account the dynamic at which each of these processes occur. This cognitive view of a dynamic mechanism is coherent with a physiological approach of emotion, as the autonomic nervous system’s activity evolves continuously throughout an emotional event. Moreover, the current literature stresses out the fact that the reactions occurring while facing an emotional situation depend on the autonomic state preceding the event, and have physiological repercussions even several minutes after the experience of emotion is over. This involves three main stages, the three Rs of the autonomic states related to emotions: the Resting state that should be the starting point of any experimentation, the Reactivity phase corresponding to the occurrence of an emotional event, and finally the Recuperation phase, reflecting the aftermath of the previous stages. This presentation will aim to support the theoretical benefit of a dynamic approach in the study of emotions and to discuss the results yielded by empirical works.

**Updating of Emotional Stimuli in Working Memory: the Role of Mood and Emotion Regulation**

* Abdul-Raheem Mohammed, Ekaterina Suchkova & Dmitry Lyusin

Updating is an executive function responsible for monitoring of working memory representations for relevance to the task and replacing them when necessary. It has been shown that participants’ emotional traits are related to the efficiency of the emotional stimuli updating in accordance with the principle of emotional congruence. However, relationships between mood and emotional updating has not been studied. The study aimed at examining the role of participants’ mood and their emotion regulation strategies in updating emotional stimuli. Updating was measured with affective versions of the n-back task using emotional words and facial expressions as stimuli. Positive, negative, and neutral moods were induced using autobiographical memories and IAPS pictures. In Study 1, we hypothesized that a participant’s mood would facilitate updating of emotional stimuli of the same valence. In all experimental conditions, updating of emotional stimuli was more efficient compared to neutral stimuli. In both happy and sad moods, emotion stimuli were updated more efficiently, compared to neutral states. In Study 2, we expected a positive relationship between the impact of negative mood on affective updating and emotion regulation. We found that there was a positive correlation between affective updating and reappraisal strategy of emotion regulation. However, mood impact on updating was not related to emotion regulation. The results show that mood and emotion regulation impact updating of emotional stimuli,
but their influence is not necessarily consistent with the principle of emotion congruence. The issue of causal relationships between mood, updating, and emotion regulation should be addressed in further studies.
speech, with verbs scoring consistently higher on valence, arousal, and dominance. There also appear to be significant gender differences in evaluations, with male participants making consistently higher evaluations of valence and female participants consistently higher evaluations of arousal and dominance. Since Polish has grammatical gender expressed morphologically, we expect to see significant interactions between the participants’ gender and the grammatical gender of the emotion words presented to them. These results would support the idea that gender and part of speech are both significant factors in how emotion concepts are construed and processed and they may have constituted a confounding variable in a variety of previous studies.

**Affective lexical content in EFL textbooks**

María Jesús Sánchez, Alfredo Fernández-Sánchez & Elisa Pérez-García

The purpose of the present study is to analyse the emotion vocabulary content of three upper-intermediate textbooks of English as a foreign language (EFL) to discover the extent to which they foster the acquisition of this target vocabulary. Teaching experience in EFL classrooms shows that students at this level are not proficient when it comes to expressing their emotions; consequently, it is hypothesized that emotion vocabulary is poorly represented in the textbooks. The EFL textbooks used are the following: (1) Masterclass (Haines & Stewart, 2008), (2) English File (Latham-Koenig & Oxenden, 2014), and (3) Jetstream (Harmer & Revell, 2016), widely available and commonly used in the instruction of EFL at a B2 level (Council of Europe, 2001). Two normative sets of affective lexicon in the English language are used to select the target vocabulary in the textbooks. First, the affective norm list in English by Warriner, Kuperman, and Brysbaert (2013), where 13,915 English lemmas are rated in emotionality. Second, Hobbs and Gordon’s (2011), a reduced list of pure emotion terms and expressions. The data, obtained through computerized tools (e.g., AntConc, Lancsbox, Vocabprofile), will be used to establish quantitative and qualitative comparisons. The findings will provide information on the representation, grammatical category and bands of frequency of emotion vocabulary in the textbooks, a valuable knowledge to teach this semantic field to students who are not proficient.

**Prevention-Regulatory-Goals and Interpersonal Emotion Regulation in Romantic Couples: The Moderating Role of High-Activation Positive Affect**

Aspasia Papachiou, Michela Schröder-Abé & Konstantinos Kafetsios

Research on how social interpersonal goals can influence emotion regulation (ER) processes in adult romantic relationships is limited. Notably, there is little research on the relationships between self-regulatory goals and interpersonal ER. Using a dyadic design, the present study investigated links between prevention regulatory goals and intrapersonal ER (regulating own emotions) and interpersonal ER (regulating partner's emotions). When pursuing prevention goals, individuals strive to eliminate risks and avoid interpersonal rejection. We thus hypothesized that prevention goals would predict the use of
suppression in regulating own and partner’s emotion. Assuming that a high prevention focus would foster a perception of high-activation positive affect (PA-HA) as a threat to relationship homeostasis, we explored whether PA-HA would moderate these effects. We collected data from 227 heterosexual couples who completed a 10-day diary on self-regulatory goals, ER, positive and negative own and partner’s affect. Actor-Partner Interdependence (Moderation) Models analyses of day-level fluctuation showed that members of couples who were more prevention-focused reported higher use of suppression in regulating own negative affect (actor effect). This effect was greater when they experienced own low-level PA-HA or when they perceived their partner experiencing low-level low-activation PA (e.g., calmness). Moreover, on days when actor (A) reported higher prevention goals, partner (P) utilized less interpersonal suppression strategies to (down)regulate actor’s (A) emotion. This was especially the case when partner (P) perceived actor (A) experiencing high-levels of PA-HA (e.g., excitement). Results highlight the role of affective context in the relationship between regulatory goals and ER strategies in close relationships.

Sera Muto

Japanese people frequently experience respect as an emotion (“affect-respect”) or a moral duty (“ought-respect”) in their hierarchical social relationships (Li & Fischer, 2007; Muto, 2018). Respect may be highly important for Japanese happiness or well-being because of their Confucian cultural background (Li & Fischer, 2007). However, there are several “respect-related emotions” such as adoration, awe, and admiration (Muto, 2014) as well as happiness-related constructs, so relationships between these various respect-related constructs and happiness-related constructs are unclear. Thus, this study examines associations between trait respect-related emotions and happiness-related constructs in Japanese people in detail. In this study, 771 Japanese people, aged 20–59, completed the items of the revised version of the Trait Respect-Related Emotions Scale, ought-respect proneness, the number of people they deeply respect, and theoretically important happiness-related constructs including subjective well-being, psychological well-being, and interdependent happiness. Participants also completed the scales of the Big Five personality and self-esteem as confounding variables. Factor analysis indicated that there are five factors of trait respect-related emotions: (a) trait action-focused respect (admiration/wonder); (b) trait idolatry (worship/adoration); (c) trait social awe; (d) trait sacred awe; and (e) trait person-focused respect. Hierarchical multiple regression analysis revealed that respect-related variables (five trait respect-related emotions, ought-respect, and respecting others actually) differentially improved the prediction of subjective well-being, psychological well-being, and interdependent happiness, even after controlling for demographic variables (age, sex, and education), self-esteem, and the Big Five personality. These findings suggest that five trait respect-related emotions are very important factors for Japanese happiness.
Finding Resentment: A Qualitative Exploration

Anki (Ann-christine) Wikman & Roger Giner-Sorolla

At present, the field of psychology lack an empirical definition and evolutionary account on resentment. In affective science the predominant ‘basic emotion’ theory subsumes resentment into the emotion-family of anger (Ekman, 1997) which has led to a neglect of resentment as an independent phenomenon. Proposed measures in other branches are subsequently reliant on researchers’ subjective interpretation (e.g. Schofield, Murphy, Herrman, Bloch, & Singh, 1997; Watkins, Woodward, Stone, & Kolts, 2003) or merged with anger in analyses (e.g. Feather & Sherman, 2002). To address this gap, the present research sought to identify the causes, outcomes and characteristics of resentment by collecting fifteen native English speakers’ personal definition and real-life accounts. A thematic analysis of the data uncovered two key findings. Firstly: offences that elicit resentment are not merely unjust but also ‘tie the victim’s arms behind their back’ by disarming the victim’s anger-expression through various means. Secondly: unlike anger, which is associated with approach, resentment leads to withdrawal. However, the latter do not easily correspond to a fight-or-flight conception; rather, it is often a purposeful (but not necessarily effective) signal alerting the offender to an imminent decrease in support and potential future detachment. Together with salient characteristics of resentment as a ruminative and long-lasting affect with a strong offender-focus, the data points to an evolutionary adaptive function whereby resentment served to rein in underhand or persistent violators of cooperative relationships. The talk will argue for the importance of decoupling resentment from anger in research.

Virtual Training in Interaction based on Affective Memory among Elders with Dementia

Linda Francis, Kathryn Lively, Julie Robillard & Jesse Hoey

This project seeks to use new computer technology to reduce distress among persons with Alzheimer’s disease by improving the interactions they have with professional care providers. People with Alzheimer’s disease (AD) lose cognitive memory but retain affective (emotional) memory; despite not remembering details about their lives, they still feel like themselves, and continue to act and react on that basis. The resident’s affective memory is built out of a rich history of experiences and interactions with others important to them. Residential care staff are not familiar with that personal history, especially with new residents, and residents may lack the ability to communicate the needed information. Interacting with a resident in a way that conflicts with his or her self-perception (e.g., treating a former military officer as a patient) is likely to create confusion, frustration and dismay and may spark agitation or outbursts. Repeated unsuccessful interactions may even wear down the resident’s stamina, leaving him or her apathetic or depressed. Such reactions often result in the use of psychotropic medication to relieve the resident’s distress. This project will report on the impact of a virtual interaction guide that trains care providers to interact with persons with Alzheimer’s based on that person’s affective, rather than cognitive memory. This new technology has potential to significantly reduce reliance on psychotropic medication and improve the well-being of people with Alzheimer’s disease or other dementias in residential care.
The First Map of Collective Emotions of a Country

Savik Shuster

My program in Ukraine, “Shuster Live”, proved that a weekly popular talk-show which discusses the most urgent political, economic and social issues in a country can become an instrument that allows to measure collective emotions in that country. Every Friday a team of sociologists brought to my studio 100 Ukrainians who according to 4 basic criteria - age, sex, region and type of dwelling (city/village) represented the population of Ukraine: we called them “All Ukraine”. Dominique Moïsi`s book “The Geopolitics of Emotion: How Cultures of Fear, Humiliation, and Hope are Reshaping the World” gave me the idea to consider these 3 as basic collective emotions. In October 2015 at the beginning of the show I started asking “All Ukraine” a question – “With what emotion did you enter the studio, Fear of tomorrow, Hope for tomorrow or Humiliation because of the conditions you are living in?” At the end of the show after having listened for several hours to most prominent figures discussing key events of the week they had to respond to the same question: “With what emotion are you leaving the studio…?” This experiment lasted for 14 months. 4600 people took part in it and this opinion poll allowed me to draw a map of emotions of every region of Ukraine. I argue that the emotional state of a population reflects a country’s standard of living and it’s level of political stability more accurately than classical economic statistics. I can provide all data and results of my research. https://www.youtube.com/watch?v=DFj4JKnNqqY&feature=youtu.be

Anxiety and Neoliberalism: An Affective Infrastructure

A.T. Kingsmith

The point of infrastructure is to be constructive and supportive, but what exactly is being constructed and supported is not always so readily apparent. As key sites through which capital and the state manage bodies, discussions of infrastructure are in effect disputes over the spaces of production and social relations. Thus infrastructures are never simply neutral conduits or platforms; they advance particular political agendas, which shape configurations of power and authority by forming collective associations. In this paper, I argue that an affective approach to infrastructural sensations, emotions, and “structures of feeling” (Williams 1977) can help us to understand not only what is done in a place and time, but how people’s shared propensities for doing ‘this’ and ‘not that’ emerge in regards to what it ‘feels’ like to embody a situation. To do so, I develop a framework for conceptualizing infrastructure in relation to affect that brings the materialist philosophy of Gilbert Simondon (1989) into dialogue with the anxious configurations of everyday life under neoliberal capitalism. Rather than conceive of anxiety as a ‘personalized’ response to the increasingly insecure social, economic, and political conditions of neoliberalism, such an approach considers the ways operations of self-quantification, time management, digital surveillance and precarious labour function by distributing an infrastructure of anxiety across the Global North. By emphasizing the shared experiences of anxious bodies within the built environment, I conclude with a discussion of strategies and tactics for addressing anxiety in terms of a ‘generalized’ infrastructure that affects us all.
Applying EG against Self-evaluated Emotion and Biometric Emotion

Reiji Yoshida & Midori Sugaya

There are many methods to estimating human emotions based on data obtained by sensors. The well-known examples are emotion recognition by analyzing image data of the facial expression and speech emotion recognition analyzing voice data. However, since facial expressions and speech can be arbitrarily changed, they can be said to lack objectivity, which is necessary for emotion estimation. Therefore, emotional analysis using biological information such as heartbeat and brain waves has been studied. Biological information cannot be changed arbitrarily, therefore can be said to suit the necessity of being objective, meaning more suitable for emotion estimation. To measure the accuracy of the emotion estimation method using biological information, it is common to obtain the degree of error between the estimation method and subjective evaluation of one's emotion. However, the problem with this method is that there is no guarantee that the subjective evaluation is equal to the actual “real feeling” that one's embracing. Therefore, in this study, we evaluated the emotion estimation method using biological information using Emotional Intelligence Quotient (EQ). We examined whether the degree of error between the emotion estimation by biological information and subjective evaluation of one's emotion can be explained by the level of EQ. In this study, emotions were estimated using biometric data calculated by brainwaves and heartbeat obtained from sensors. As a result, we were able to show the effectiveness of EQ as the indicator of how close bio-estimated emotion is to the subjective emotion evaluation.
How cognitive, social, and emotional profiles impact humor appreciation: Sense of humor in Williams syndrome

Noémie Treichel, Daniel Dukes, Koviljka Barisnikov, Julie Heiz & Andrea C. Samson

Humor is a complex and multi-faceted phenomenon composed of a variety of cognitive, social, and emotional processes. This presentation focuses on humor appreciation in individuals with Williams Syndrome (WS), a rare genetic disorder mainly characterized by intellectual disabilities, high social approach tendencies (hypersociability) and high positive emotions. We aim to better understand how the particular cognitive, social, and emotional profile of individuals with WS affects their appreciation of humor. Our approach is based on a fruitful line of research that we previously developed with individuals with Autism Spectrum Disorder (ASD) in order to better understand how specific and narrowly circumscribed deficits affect humor appreciation. In this presentation, we argue that the specific cognitive impairments of WS might prevent individuals from understanding particular kinds of joke. In the social domain, for example, we postulate that deficits in social perspective taking may impact understanding humor that requires Theory of Mind while, conversely, hypersociability and high cheerfulness may lead individuals with WS to higher engagement and appreciation of humorous (social) interactions. In short, they may laugh without understanding the joke. Finally, WS individuals have a profile that is characterized by unfiltered and high levels of empathy which may prevent them from appreciating even mild forms of aggressive humor. Preliminary data will be presented that supports these hypotheses. It is hoped that such research will ultimately lead to guidelines for future investigations of cognitive, social and emotional processes in individuals with WS and a greater understanding of the nature of humor.
Multimodal Analysis of Impressions for a More Engaging Virtual Agent

Chen Wang, Phil Lopes, Thierry Pun & Guillaume Chanel

Introduction. Impressions are closely related to emotions such as: admiration, contempt, pity and envy. These can influence how people interact between each other and with virtual agents (VAs). This work focuses on the automatic impression recognition in warmth-competence space based on affective multimodal cues expressed by humans. This could be used to improve the user's impression of VAs by adapting VAs' behaviours accordingly. Methods. Experimental data was collected from 60 participants using two scenarios: watching video clips of different strangers and interacting with a stranger. The following modalities were recorded: eye-gaze, facial expressions, gestures and physiological signals (electrocardiography, electrodermal activities and blood volume pulse). In a first step, we analysed participants' eye-movements to investigate which areas they look at when forming impressions. In a second step we investigated how multimodal cues could be used to predict formed impressions. This was achieved by using a multilayer perceptron with features from each modality as inputs and warmth / competence assessments as outputs. The prediction performance was evaluated using the concordance correlation coefficient (CCC). Results and conclusion. When analysing participants' eye-movements, we found that users spend significantly (t=3.6, p<0.1) more time looking at the face area when judging warmth compared with judging competence. When combining eye-gaze and facial expression modalities to predict impressions, the best CCC values were 0.53 and 0.38 on warmth and competence respectively. Taken together these results indicate that impressions can be detected continuously from multimodal cues. As a future work we will combine more modalities to better predict impressions.

Sociology of emotions in Iranian moral literature: Emotion experiences and expressions in Saádi's Rose Garden

Afrooz Rafiee

Conceptualizations of emotions are highly embedded in socio-cultural discourse. Moral literature provides researchers with a rich source of cultural elites' understanding and interpretation of emotions in the broader socio-cultural context of a nation, and contributes to historicize emotion experience and emotion expression within a society. Among Iranian moral literature, Saádi’s Gulistan has gained high international impacts (Durant, 1950) and remained popular in present time Iran. Written in brief narratives of prose and poetry, the book is provided in eight chapters on humankind issues. In this presentation, we aim at investigating the emotion ideologies in Gulistan. Following dramaturgical perspective toward the sociological analysis of emotions (see, Turner, 2009) and particularly focusing on Hochschild’s (1979) notions of emotion ideologies and feeling rules, we aim at answering questions such as: Which emotions are and which emotions should be experienced in which social settings? To what

Theoretical Review of Narrative Language-based Interventions and Their Possible Effect on Emotional Intelligence

* Yasaman Ghafaryan Shirazi, Kirsri Peltonen, Mohammad Malekzadeh & Hamidreza Ghafaryan Shirazi

This article reviews theories supporting Narrative Language-based interventions consisting of narrative communication strategies: storytelling, internal and external narratives. First, discussed Narrative Storytelling (NST) method; individuals write stories based on narrative structure of archetypal hero. They are encouraged to draw analogy between themselves and the hero struggled with one emotion and ask themselves what they do if they were struggling with the same emotion. Second reviewed, Compassionate Communication (CC) intervention that is a sequential self-narrative dialogue asking, “what I/the other observe; how I/the other feel in relation to what I observed; what I/the other’s need is that creates our feelings; what do I/the other want (concrete actions) to meet the need”. In the CC intervention individuals become mindful of the four components: (a) observations (b) feelings (c) needs (d) request; and learn how to express their emotion and need, and how to read other’s emotion and need through their action. Based on constructive theory of emotion, Language forms perception and affect individuals emotional experience. We proposed two interventions: CC and NST to be capable of affecting positively the Emotional Intelligence of individuals. Considering the appraisal theory of emotion and counting appraisals as internal dialogues in human mind, the content of our thought-through narrative or the language and thinking individuals use to describe an event are capable of changing positively the emotional response and help better coping style. From this theoretical stand point, we offered strategies and methods of education that teach positive ways to appraise/reappraise thought-through narratives of an emotional event.

A componential emotion approach to moral distress experiences in health carers

* Céline Baele & Johnny Fontaine

Purpose. Moral distress (MD), arising when feeling unfree to act upon one’s principles, has been described as a major issue affecting several health care disciplines. Although there is a relative consensus on when MD arises, the empirical evidence on the experience of moral distress remains scarce. From a componential emotion perspective, we claim that MD might be considered as an emotion process. The
aim of this study is to provide empirical evidence for this claim, by showing that the experience of MD can be deconstructed into different emotion components: appraisals, physical symptoms, expressions, action tendencies and subjective feelings. Method. A literature review and an empirical study were conducted. In an open-ended survey, participants - 45 Belgian health carers - were asked to describe their emotional experiences, emotion regulation and coping strategies during a recent experience of MD. The data were analyzed using Nvivo 11. Results. The literature review shows that different emotion components are present in the experience of MD, although no study investigated them in a comprehensive way. The empirical study shows that every component is indeed present in the experience of MD. Different emotional processes could be identified: it seems that MD predominantly consists of so-called ‘moral emotions’ (compassion, disappointment, guilt and anger). Conclusion. This study shows that MD can be mapped into emotion components. Considering MD as an emotional process provides insight in the adaptive and motivational nature of MD. This might help develop mitigating interventions for MD.

Selection of EEG Channels for Valence and Arousal Identification Using LARS

Yoshito Tobe, Katsuhiro Mori, Koichi Shimoda, Yu Nakayama, Michael Hofenbrock, Till Riedel & Michael Beigl

Nowadays human lives are enriched with computers and the Internet connection using several devices. However, the interaction between computers and human or inter-human communication affect the effective organization of society. Therefore, the need for identifying human emotion is increasing and several Electroencephalogra (EEG)-based datasets have been public for analysis. DEAP is one of the EEG-based datasets and in DEAP, the EEG and peripheral physiological signals of 32 participants watching 40 music videos have been recorded. We use DEAP for our analysis. In the previous work, the mutual information for each EEG channel was calculated to compare the influence of each channel to valence and arousal. This method is good to sort all the channels in the relevance to valence or arousal, but it cannot provide a solution to the problem of selecting a certain fixed number of channels. Reducing the number of measurement channels can lead to the utilization of low-cost EEGs. We aim to select a few signal sources that are influential from multiple signal sources and the resulting valence and arousal. This problem reduces to the problem of selecting explanatory variables when depression is used as a target variable and signal source is used as an explanatory variable. We apply Least-Angle Regressions (LARS) to this problem. This paper describes how the channels of EEG is selected to identify depression using LARS based on DEAP dataset. We compare the analyzed results with LARS and mutual information and show that LARS effectively selects the fixed number of measurement channels.
Phonatory changes during emotion-inducing game events: The effect of coping potential

Márton Bartók

This study aims to describe how phonation (vocal fold vibration) changes during emotion-inducing stimuli, at different levels of coping potential (CP). In a computer game, 34 Hungarian subjects were asked to guess whether an upcoming card will contain a higher or lower number than the previous card, using voice commands to control the game. Since task difficulty was manipulated, we expected CP to vary in our subjects and that this is reflected in their speech. An emotionally neutral baseline was also recorded. CP was derived from the uncertainty of in-game decisions, and a nominal variable with four levels (no CP, moderate CP, high CP, baseline) was constructed. Fundamental frequency (f0) and the difference between the first two harmonics (H1-H2, reflecting the extent of glottal constriction), were measured on the target words. The Toronto Alexithymia Scale (TAS-20) was used to assess the subjects’ patterns of emotion regulation. CP and syllable position had a significant interaction effect on f0: f0 was lower in the manipulated conditions than in the baseline, but only in the first syllables. F0 was the lowest in no CP, possibly due to low muscle tension caused by resignation. There was a significant interaction effect of CP and gender on H1-H2, suggesting that the experimental manipulation itself leads to a more modal phonation, irrespective of the degree of CP (i.e., less breathy voicing for females, less irregular voicing for males). Females having a higher TAS-20 score (suggesting that they tend to minimise emotional experience) do not show this variation.
Valence and arousal ratings of a Chinese speaker’s affective state: universal or not (totally)?

Pernelle Lorette

As part of a larger on-going research project, this paper investigates cross-cultural perception of a Chinese speaker’s valence and arousal levels. As emotions are communicated both verbally and non-verbally, the role of language background is also investigated. Participants were 597 first language (L1) speakers, 378 second/foreign language (LX) speakers, and 504 non-speakers (L0) of Mandarin from 70+ countries. Data were collected via an online survey. After providing socio-demographic background information, participants were presented with 12 short recordings in one of the four investigated modalities – visual-only, vocal-only, vocal-verbal, or visual-vocal-verbal – in which a Chinese actor conveyed 12 intended emotions. For each recording, participants indicated their perception of how pleasant/unpleasant and how agitated/calm the actor was feeling by moving a cursor within a two-dimensional space. Following House et al. (2014), Anglo, Germanic, Eastern-European, Latin-European, and Confucian participants’ ratings were compared. Preliminary non-parametric analyses revealed no difference in 2/3 of the comparisons, and only very small effect sizes when differences were found. Similarly, few differences appeared between L1, LX and L0 speakers’ ratings, with very small effect sizes. Unwinding these small differences revealed a slight pattern where participants who share the same L1 and/or the same culture as the Chinese actor tend to perceive higher arousal levels and less extreme valence levels – i.e. closer to neutral – than other participants. These findings support Russell’s (2003) assumption that core affect has a universal character, although culture and language appeared to slightly affect valence and arousal perception.

Heroes Against Homophobia: Does Moral Elevation Uniquely Block Homophobia by Inhibiting Disgust?

Sebastian Eric Bartos, Peter Hegarty & Pascale Sophie Russell

Homophobia has decreased in past decades, but gut-level disgust towards gay men lingers. It has been proposed that disgust can be reduced by inducing the polar opposite emotion, elevation. Elevation is elicited by witnessing self-sacrifice and other uncommon acts of goodness. Research suggests elevation might reduce homophobia, but only general elevation (not elevation specifically evoked by gay people) and general attitudes (rather than disgust) have been studied. Nor do we know how elevation’s effect on homophobia compares to that of related emotions, such as admiration or surprise. To this effect, we edited and pretested a series of news stories featuring either a gay man or a man of unspecified sexuality that elicited elevation, admiration, or surprise. We pre-registered the prediction that elevation-inducing stories would reduce negative attitudes by reducing disgust. In Study 1 (N = 593), participants who read elevation-inducing stories did not express more positive attitudes or less disgust than those who read stories inducing other positive emotions. The admiration stories elicited similar or lower levels of disgust than the elevation stories. In Study 2 (N = 588), we replicated the findings of Study 1 with modified stimuli and measures. Elevation may not play a unique role in reducing homophobia: elevation and admiration appear to be related moral emotions with similar effects in this domain.
EmoReco, EmoCube, Emotion Recognition for Good Relations with Others

Carol Gehringer

Children need to acquire a large number of beliefs in order to survive in their natural and social environment; they must absorb the representations that are communicated (Clément). Like anthropologists, children are engaged in a participant observation fieldwork (Harris). By 3-4 years children recognize and name facial expression like happiness, sadness, fear and anger (Pons, Harris, de Rosnay). The migrants, the newcomers, must discover what value to attach to object, persons and events in a given social environment (Clément, Dukes), which appraisal is shaped by happening in a same or a similar emotional event not per se but in-relation-to self (Manstead, Fisher). EmoCube is a toy for preschool children and caretakers to train their skill to express 4 different basic emotions and to improve the evolution of emotion comprehension with Plutchick's wheel and Yale's RULER - yellow happiness, blue sadness, green fear & red anger - evoked by children in a circle with peers while building trust within respond to their individual demand. The hypothesis tends to demonstrate how by scaffolding basic emotional verbal competences in the zone of proximal development (Vygotsky) caretaker emotional intelligence evolves while improving children emotional competences development and facilitating migrant children inclusion process within their new society. Emoreco is a tool app for primary school children to train in an easy way their skill to recognize with fun 16 different emotions through questions (Fisher). Emocube is complementary to Emoreco with an identical goal improving facial emotions recognition a fundamental skill for good relation with others.
The Ideal and Actual Coping Responses of College School Teachers on Job-Related Stress

Zaralyn Bernardo, Dante Boac & Annabelle Del Rosario

Professional individuals who are in primary role to impart learning with the new generation are alarmingly tend to have a vast decrease in their workforce due to stress at work. Thus, the study used mixed method research design to explore the ideal and actual coping patterns of college school teachers, both private and public, using Coping Response Inventory-Adult (CRI-Adult). Lazarus (1984) suggested that in order for coping to be effective there must be a congruence or good match between coping efforts and preferred coping style. Results basically provided the same information on sources of teacher stress, however, workload and low salary were more likely heightened, for public and private school, respectively. There is also significant difference between the ideal and actual coping style of college school teachers. Though the public school teachers leaned towards problem-focused as their ideal way of coping, both public and private teachers are somewhat inclined to use emotion-focused coping in actual situation. Results of FGD identified the factors that contribute to the incongruence or mismatch in their preferred style of coping and actual efforts to cope. Identified factors based on thematic analysis (TA) are clustered into themes such as: affectivity and rehearsal of the preferred coping responses; sensitivity to pressure impairs coping efficacy; seeking for social acceptance and approval; indefinite appraisal of perceived stress; emotional dysregulation and impulsivity; immediate desire to terminate negative emotion and adversity. Most of the factors somewhat provide partial elucidation on the engagement of the respondents on emotion-focused coping.

Recollecting experiences of victimhood and emotionally social pain: Effects on time perception

Theofilos Gkinopoulos, Patrice Rusconi & Paolo Riva

This study was prompted by the duration neglect effect. Duration neglect effect concerns the psychological observation that people's judgements of negative experiences depends on sense of time passage and painfulness of the event. This study expands on the duration neglect effect looking at differences between people as individuals and as group members, and also differences between thinking of a painful event of the past, the present or a feared one of the future. We recruited 210 students of the University of Athens using an experimental design 3 (temporality: past/present/future) x 2 (identity: self/collective). Results showed differences in participants' responses when they adopt the self and collective identities. When the time frame is the future there is a difference in terms of feelings of being a victim: within the collective identity, people feel less of a victim than as within a self identity (they also feel less of a victim in the future than in the past when they think in terms of their collective identity). However, always in the future time frame, participants felt less negative emotions when they thought in terms of their self identity rather than in terms of their collective identity. When it comes to time estimates, the differences between self and the collective identities are significant only in the present time frame: both in terms of estimates of duration and temporal distance, time is perceived as longer when thinking with a self identity than with a collective identity. Contributions on time, victimhood and identity are discussed.
Emotional modulation of item and source episodic memory in school-age children

Sarah Massol & Hanna Chainay

Emotional Enhancement of Memory (EEM), better memory for emotional stimuli than neutral ones, has been well demonstrated in adults, but little is known about EEM for school-age children, on both, item and source memory. Considering some developmental and aging studies, some difference may be expected (Hamann & Stevens, 2013; Murphy & Isaacowitz, 2008). Our study tested the impact of emotional valence, negative and positive, of words and pictures on item and source episodic memory. Contextual features for source memory were gender of the voice pronouncing words and type of the frame in which pictures were displayed in Experiment 1, and spatial location of words and pictures in Experiment 2. Eight to eleven years old children were tested and compared to young adults. Participants completed an intentional-encoding task followed by item recognition, source recall and free item recall tasks. Results displayed: (1) no EEM in recognition tasks, (2) in children and adults, better recall of positive and negative words and their associated context than neutral ones, in both experiments, and (3) in Experiment 1, better item memory for negative pictures in children and in Experiment 2, better item memory for negative and positive pictures and better source memory for positive pictures only for both, children and adults. Our study brings new knowledge on the effects of emotion on item and source memory in school-age children, similar to those observed in young adults. However, further investigations are needed in younger children to get a full picture of the EEM throughout the development.
How situational cues, ‘autistic-like-traits,’ and Autism Spectrum Disorder affect emotion recognition

Dale Metcalfe, Karen McKenzie, Rachel Martin, Kristofor McCarty & Thomas Pollet

The ability to correctly recognise emotions can be affected by a variety of factors. Research shows that people with Autism Spectrum Disorder (ASD) generally are poorer at recognising emotions than those who are typically developing. However, these findings are not consistent. They are potentially influenced by the type of stimuli used, with static imagery and dynamic videos being processed differently. The portrayal of emotions is not limited to facial expressions; it includes body language, movement, and cues from the environment. This talk covers three studies into emotion recognition. First, an investigation of ‘autistic-like-traits’ in a typically developing population using dynamic stimuli; second, a comparison between children with and without ASD using dynamic stimuli; and third, a study of adults with and without ASD using static stimuli. In all studies the stimuli varied in the amount of contextual information and situational cues available. These cues were congruent to the emotions depicted and revealed further information about the emotional state. Taken together, these studies show that autistic-like-traits and context influence emotion recognition in the typically developing population. In those with ASD, the results were more complex. When the stimuli were dynamic, situational cues were shown to aid emotion recognition for children, but did not significantly affect the accuracy of emotion recognition for adults when static stimuli were used. This presentation will discuss these findings, how they inform us about emotion recognition in people with ASD and their implications for socio-emotional interventions for this group of people.

Ten Emotions - Ten Films

Anke Zeissig

Video-clips are among the most effective tools to induce emotions (Schleicher, 2009). However, the availability of methods inducing specific emotional states is described as desolate (Janke & Weyers, 2008). Videos for given target emotions are seldom (Rottenberg, Ray & Gross, 2007) or rely on narrative action, and their content and dramaturgy are not free of country, culture, time, or language specific elements (Schleicher, 2009). The first part of this interdisciplinary work was to use an artistic process to explore ten emotions (boredom, revulsion, sadness, pain, fear, haste, aggression, comfort, joy, even-mindedness). In result, ten video films were developed. Content and dramaturgy of the video-clips are free of language, country, culture, or time specific elements. The second part was an empiric study. Three of the developed video films and a control condition were used to check the induction of the intended emotions (boredom, joy, even-mindedness, concentration). 94 students participated in four different groups. Participants in each group got 6 min of intervention. According to post-hoc ratings, the emotion induction was partly successful: Video clips evoked joy and boredom, and participants in the concentration condition felt focused; but watching the even-mindedness-video resulted in various feelings. All the ten films are now available for further empiric research.
**Emotional reactivity and facial expression at various stages of adulthood: Cross-cultural study**

Marta Doroszuk

The Regulative Theory of Temperament (RTT) explains emotional reactivity as a tendency to an intense reaction in response to an emotional stimulus. One of the best sources of information about a person’s emotional state is facial expression. Moreover, expression of emotions is connected with culture’s expectations (Matsumoto, Juang, 2016). Conducted research aimed to describe the relation between emotional reactivity and facial expression (its diversity and intensity) at three stages of adulthood: early, middle, late and find differences connected with age, sex and culture. It was assumed that this relationship is positive, but its strength depends on various factors. The research was held in Poland and in Basque Country. Polish participants represented early adulthood (N=60; Nmale=20; Mage = 22.13; SD = 1.55) and middle and late adulthood (N=60; Nmale=7; Mage = 65.80.; SD = 5.96). Basques were young adults (N=46; Nmale=15, Mage = 22.09; SD = 3.71). After completing The Formal Characteristic of Behaviour – Temperament Inventory (FCB-TI; Cyniak-Cieciura, Zawadzki and Strelau, 2016, in Polish or Spanish version in author’s adaptation), participants watched short emotional video during which their facial expression was recorded. Facial Action Coding System (FACS) (Ekman, Friesen and Hager, 2002), was used to describe facial expression. It turned out that among young Basques there was no relation between emotional reactivity, diversity and the intensity of facial expressions. But this relation exists among young Polish adults and was positive. The differences between young Polish and Basques in facial expression (as a response to stimulus) was not found.

**Can negative emotions modulate the processing of the emotional cues in sequential decision making?**

Mélody Mailliez, Pascal Hot & Thierry Bollon

Individuals make complex decisions using an emotional processing. The Emotion Imbued Choice (Lerner et al., 2015) suggest that incidental emotions (unrelated to the task) and integral emotions (related to the task such as feedbacks of previous decisions) modulate decisions. Incidental emotions could modulate the processing of feedbacks (integral influence). Incidental emotions associated with a high degree of certainty would trigger a heuristic processing while incidental emotions associated with a high degree of uncertainty would trigger a deliberative processing. Heuristic processing would allow to process the integral influence of feedbacks while deliberative would not. However, the modulation of the processing of integral influence of feedbacks by incidental emotions has been mainly investigated without distinction between positive (gains) and negative (losses) integral influence of feedbacks. We sought to determine whether the incidental emotions can account for the modulation of the processing of integral influence of feedbacks. In two studies, we asked participants to performed a sequential decision making task in which the processing of the integral influence of feedbacks is necessary to make advantageous decisions. Negative emotions (disgust vs sadness (study1) or fear (study 2)) were induced to trigger heuristic or deliberative processing. The small-scale meta-analyses performed support this effect. Results suggest that disgusted participants modulate their decisions as function as the integral influence of feedbacks. Taken as a whole, these studies support that integral influence of feedbacks is modulated by
incidental emotions according to their appraisal of certainty.

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Understanding Differences between Malaysian Malays with and without Major Depressive Disorder in Subjective Experience

*Sindhu Nair, Firdaus Mukhtar, Laura Jobson, Ruziana Masiran, Hairul Anuar Hashim & Indra Selvarajah

Emotions are an integral part of the existence and functioning of a living being as they give meaning to life experiences and events. Impairments in emotion processing and regulation can lead to depression. Subjective experience is a fundamental domain of emotion processing that is scarcely looked into especially among the clinical population. This study aims to investigate the difference in subjective experiences of Malaysian Malays with and without Major Depressive Disorder (MDD). There were 70 participants without MDD and 37 participants with MDD, between the ages of 18 to 60 years old, in this experimental study. Participants were assessed using the Structured Clinical Interview for DSM 5, also the Beck Depression Inventory (BDI), Self-Construal Scale (SCS) and the Individualism, and Collectivism Scale (IndCol). The first part of the experiment assessed the frequency of experiencing different types of emotions while the second part assessed the extent to which they experienced different emotions in 10 different situations. The mixed ANOVA comparing both groups of participants showed that participants with MDD experienced negative emotions, amae emotions and basic emotions more frequently than participants without MDD. Regardless of participant condition, negative engaging emotions were experienced more than positive engaging emotions. Also, participants experienced negative disengaging emotions more than positive disengaging emotions. Overall, there was a general trend for participants with MDD to experience more negative emotions and participants without MDD experiences more positive emotions. One of the limitations of this study was the unequal sample sizes of the groups.

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The Role of Emotions in the Stigmatization of Mental Illness

Bianca Manago

This project examines how mental illness labels and deviant behavior affect stigma, paying particular attention to the role of emotions in these processes. Specifically, I examine how the emotions of uncertainty, discomfort, and fear affect stigma processes in ambiguous situations. As an illustration, imagine that you are on a subway with a man who is loudly and incoherently talking to himself and others. You are not sure what is happening. Is he messing with people? Is he drunk? During moments in which there is no clear definition of a situation, onlookers seek to make sense of what they are witnessing. I predict that in ambiguous situations such as these, onlookers experience uncertainty and associated discomfort. This discomfort will manifest itself in a desire for social distance, i.e., stigma. By defining a situation, I predict that a label will reduce uncertainty and in turn, discomfort. The content of the label,
however, will affect the extent to which a label reduces discomfort. Specifically, I predict that if people with this mental illness are thought to be dangerous, a label will not reduce discomfort, but will increase fear and, in turn, stigma. I examine these processes in a series of original survey experiments. As predicted, I find that labels reduce uncertainty. Furthermore, both discomfort and fear increase stigma. Contrary to predictions, however, the relationship between uncertainty and discomfort is unclear. In conclusion, this project underlines the importance of emotions as mechanisms through which mental illness labels affect stigma.

**Facebook using behaviour, emotion regulation, and wellbeing among students**

*Nutankumar Thingujam & Imlisongla Longkumer*

There are 2,234 million Facebook users in the world and the highest users are recorded in India with 294 million users as of October 2018; the number is one on the rise. Thus, it is very important to understand Facebook using behaviour and its associated psychological patterns. Two studies examined the relationship between Facebook using behaviour and emotional patterns in terms of emotion regulation strategy, affectivity, neuroticism, and life satisfaction. In Study 1, one hundred and ninety nine students provided ratings to the Facebook using behaviour survey, cognitive emotion regulation strategies, positive and negative affect scale, neuroticism, and satisfaction with life scale. Results showed that Facebook using behaviour was associated with many cognitive regulation strategies, positive affectivity, negative affectivity, neuroticism, emotional suppression, and cognitive reappraisal of negative emotion. But, life satisfaction was not associated with Facebook using behaviour. In Study 2, one hundred and one university students responded to Facebook using behaviour survey, positive and negative affect scale, flexible regulation of emotional expression scale, difficulties in emotion regulation scale, and Berkeley expressivity questionnaire. Results indicated that Facebook using behaviours were associated with negative emotionality and few difficulties in emotion regulations, that is, non-acceptance of emotional responses, impulse control difficulties, and limited access to emotion regulation strategies. Positive affectivity, negative affectivity, and any kind of flexible regulation of emotional expressions were not associated with Facebook using behaviours. Overall, the results suggest that Facebook using behaviour is related to emotion regulation strategies and wellbeing.

**Yes, I Can (Achieve What You Have): Effects of Self-Efficacy on Reactions to Envy**

*Soohyun (Ashley) Lee & Yochi Cohen-Charash*

Although painful, (Tai, Narayanan, & McAllister, 2012), envy is an important emotion designed to alert people to their relative inferior position and to motivate them to reduce the pain and the envy-provoking gap with the other (Hill & Buss, 2010). To achieve these goals, envy can trigger various reactions, such as harming the envied, improving oneself, or other cognitive/affective responses (Cohen-Charash & Larson, 2017). Therefore, it is important to understand what determines which reaction/s will take place and how
these determinants operate. Here, we apply Bandura’s (1977) social cognitive theory of motivation and self-fulfilling prophecies models (e.g., Eden & Zuk, 1995), to suggest self-efficacy as one such moderator of reactions to envy. We argue that self-efficacy beliefs determine the self-expectations of the envious regarding his or her ability to reduce the envy-provoking gap. When such expectations are high, the envious person will try to self-improve; when such expectations are low, the envious will either harm the other, and/or employ cognitive processes (e.g., reappraisal) to cope with envy. This process is further influenced by personal (e.g., trait self-esteem), situational (e.g., situation changeability), and emotional (e.g., regulation strategy) factors that moderate the relationship between envy, expectations, and reactions. We will provide experimental data examining part of our model, followed by a discussion of how this model extends the current theoretical understanding of reactions to envy, and how it can provide practical strategies regarding channeling reactions to envy to a socially desirable direction.

**Efficiency of emotion regulation based therapy in the care for the management of atopic dermatitis**

* Cristina Ciuluvica (Neagu), Paolo Amerio & Mario Fulcheri

The aim of the present work is to investigate the effects of emotion regulation based therapy in the care for the management of atopic dermatitis. Emotion Regulation Therapy (ERT) is a theoretically derived, evidence based, treatment that integrates principles from traditional and contemporary therapies with findings from basic and translational affective science to offer a framework for improving intervention by focusing on the motivational responses and corresponding regulatory characteristics of individuals with high levels of chronic distress. A single-case design was used to examine the benefits of ERT in the treatment of two patients with atopic dermatitis. Emotion regulation based strategies were employed (e.g., identifying and describing emotions, identifying diseases related emotions, awareness of emotional impairment, emotional awareness, emotional clarity, cognitive reappraisal, emotional expression) to allow patients to modify maladaptive emotion regulation strategies, gain insight and practice more adaptive emotional strategies in private, and social situations. The intervention consisted of fourteen, weekly, 60-min sessions. Specific measurements were applied before, and to the end of the therapeutic intervention: Emotion Regulation Questionnaire, Emotion Dysregulation Scale, Alexithymia Toronto Scale, Subjective Well Being, The Severity of the Disease. Improvements were indicated for both cases in global outcome measures, with reductions of the maladaptive emotional mechanisms, and improvement of the adaptive emotional mechanisms. An important result was the reduction of the dermatitis symptomatology (pruritus). For both cases, treatment gains were particularly evident in terms of reducing avoidance behaviours, anxiety, and depression, and to improve the life quality of the patient.

**Preference and Perception of Interpersonal Distance in Social Anxiety**

* Nur Givon-Benjio, Hadas Okon-Singer & Idan Aderka

Social anxiety is an anxiety disorder characterized by a significant amount of fear in one or more social
situations, resulting in maladaptive behavior in daily life. Previous studies suggested that socially-anxious individuals prefer larger interpersonal distance from strangers. However, up to now, examination of the effect of social anxiety levels on perception of interpersonal distance from others is lacking. The current study examined the perceived interpersonal distance in social anxiety. 100 participants performed a computerized task (study 1), while 75 additional participants took part in an ecological task (study 2). We hypothesized that social anxiety level would correlate with the perception of distance from strangers in a distorted manner, so that strangers would be perceived as closer. Replicating previous studies, we found that the level of social anxiety correlated with a preference for a larger interpersonal distance from strangers. More importantly, higher social anxiety correlated with perception of the distance from stranger as shorter than it truly was, compared to the perception of the distance from friends. These results were further replicated both in a computerized, as well as an ecological setting, in study 2, highlighting their implication to real life. To the best of our knowledge, this is the first study to show biases in perception of distance in social anxiety. These innovative results have important theoretical as well as clinical implications and point to new avenues in the underlying mechanisms of social anxiety.

The role of emotion in organ donation registration: State guilt increases prosocial intentions

Nicole E. Henniger, Danielle R. Blazek & Mackenzie R. Goodwin

The decision to register as an organ donor could potentially save lives, as thousands of people wait for organ transplants. Although various cognitive, social, and policy-based approaches to increasing low organ donation registration rates have been explored, fewer studies have assessed the role of emotion in registration decisions. A series of five studies using both college student samples and diverse online samples (total n = 844) found that state guilt in particular positively influenced organ donation registration intentions. Study 1 found that public health messages about organ donation elicited guilt (but not other negative emotions like anger) in unregistered participants. Greater guilt predicted greater intentions to register. Study 2 replicated this association between evoked guilt and registration intent. However, the cognitions accompanying the guilt were important; more behavior-focused attributions predicted more positive intentions to change, while more self-focused attributions did not. Study 3 used a recall manipulation to experimentally elicit emotions in unregistered participants. Participants recalling a guilt experience reported significantly greater intentions to register than participants recalling anger or no emotion, equivalent to the prosocial effect of recalling a positive experience. Studies 4 and 5 looked for associations between emotion-related traits and organ donation registration. However, these traits did not consistently predict registration status or intentions, suggesting that trait emotional tendencies are less important than acute emotional states in influencing registration decisions. Overall, these findings support the theory that guilt motivates prosocial behavior and hold practical implications for the effective use of emotions in public health messages.
The influence of social context on facial muscle activity in response to food stimuli

* Elizabeth Nath, Peter Robert Cannon & Michael Carl Philipp

The function of human facial expression has been the subject of vibrant debate in emotion research for decades. Most perspectives fall into one of two camps – emotion-expressive or social-communicative, with recent developments attempting to transcend the divide. The present study contributes to the discussion with an investigation of the effect of social context on facial expressions to food stimuli. Seventy participants (52 female and 18 male) viewed food images of varying acceptability either alone, or in the presence of the researcher. Subjective liking ratings were measured using a labelled affective magnitude scale, and facial muscle activity from zygomaticus major (contracted during smiling), corrugator supercillii (contracted during frowning) and levator labii superioris (contracted during nose wrinkling) were measured with an EMG recording system. Controlling for individual differences in facial expressivity and food image acceptability using linear mixed models, it was found that social context did not predict smiling or frowning activity but did predict the intensity of disgust expressions, with participants in the observed condition exhibiting less levator activity than participants in the alone condition. Facial muscle activity was found to predict subjective liking. Exploratory analyses revealed a strong relationship between muscle activity intensity and speed, and provided some evidence that social context may influence the temporal dynamics of facial expression. The results indicate that emotional stimuli and social context both influence food-evoked facial expression, and provides support for the utility of EMG in measuring food-evoked emotion.

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What features construct sadness prototype for Japanese?

* Mariko Shirai & Masato Nagamine

Sadness comprises not only negative but also positive aspects, as represented by mixed emotions. The purpose of the present study is to examine what features construct the concept of sadness using the prototype approach and to determine whether unique features are observed in Japan because Western and Eastern cultures have different emotional systems. Easterners tend to pay more attention to the positive aspects of negative emotions than do westerners. Accordingly, cultural differences produce distinctive prototypes of emotion. Previous studies have observed 37 sadness-related features that were classified into 18 central (e.g., death) and 19 peripheral features (e.g., deactivation) in Japan (Shirai & Nagamine, 2018). Interestingly, positive aspects of sadness were also reported (e.g., co-occurrence of positive emotion). To confirm the central and peripheral features, we examined the automatic responses toward these features and clarified the relation between the concept of sadness and the features. Ninety-one Japanese were presented with features of sadness and asked to engage in recall and recognition tests. We hypothesized that they would show better recall and more false recognition of central than peripheral features. As expected, the central features of sadness were recalled more and also generated more false recognition, which indicates that the differences between central and peripheral features affected the participants’ information processing. Therefore, central features possess a stronger connection to the concept of sadness than do peripheral features.

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The (inter)personal effects of emotional regulation via power approaches during romantic relationships’ conflicts

María Alonso-Ferres, Inmaculada Valor-Segura & Francisca Expósito

Romantic relationships are an important part of people’s lives. However, the inevitable conflicts that stem from them could lead to negative emotions on both members of a couple. Because not everyone has the same motivations to face conflicts, the power dynamics between partners—the ability to influence/control the partner’s outcomes based on one’s own preferences—may affect their emotional expression/suppression and therefore, their conflict facing-responses. Two experimental studies explored (1) whether relative power within the relationship plays a role in determining who is more likely to express (vs. suppress) social distance (e.g. anger) or affiliate (e.g. sadness) emotions; (2) the specific consequences of the emotional regulation during a conflicitive interaction: conflict facing-responses (interpersonal) and depression (intrapersonal). In study 1 (N=182) 2x2 design, the emotion (anger/sadness) and participant power were manipulated when participants recalled a past romantic conflict. Emotional regulation and conflict’s facing-responses were evaluated. Results showed that whereas powerful people intensely express their anger feelings and face the conflict negligently, powerless people suppress their emotions and adopt a loyal conflict-facing response. In study 2, (N=205) 2x2 design, the emotion and emotional regulation (expression/suppression) during an intimate conflict were manipulated, and their power, conflict facing-responses and depression were evaluated. The study 1 findings were replicated. Moreover, results showed that powerless people who suppress their emotions and use a loyal conflict-facing response were more likely to suffer depression. The findings were discussed in light of the importance of power during romantic conflicts and highlight the effects of emotional regulation on their inter/intrapersonal consequences.

Emotion transfer in difficult interactions with patients and its association with health-care providers’ well-being

Sonja Weilenmann, Ulrich Schnyder, Brian Parkinson, Nina Keller, Claudio Corda, Roland von Känel & Monique Pfaltz

Caring can be rewarding. However, interacting with difficult, suffering, or dying patients may come with costs for the provider, and without adequate emotion regulation, compassionate care can result in compassion fatigue or burnout. Although there is a high prevalence of stress-related conditions among health care providers, which do not only impair provider well-being but also quality of care, it remains largely unclear how health professionals can regulate emotions to sustain their own health. To validate our recently developed model depicting emotion transfer and emotion regulation in provider-client interactions, we used a mixed methods design comprising qualitative interviews and quantitative questionnaires administered to 80 health care providers. Results confirm the validity of our model and reveal that emotion transfer (valence, usefulness, and directedness of emotions), emotion regulation abilities and emotion regulation success are linked to well-being and resilience. Therefore, our model can be considered a promising basis for prospective, theory-driven research in this area, informing the development of interventions enabling health care professionals to provide compassionate care without
Effects of Gratitude, Tolerance and Compassion in Health and Emotional Co-regulation in the Couple

Rozzana Sánchez-Aragón

Moral emotions are those that are interested in human respect, a concern for the warmth of human relationships (Martínez, 2013), which will necessarily affect the moral identity of the individual (Helm, 2009). One of the best examples of relationship in which harmony and positive interaction becomes central is the couple relationship (Sánchez-Aragón, 2016), which is considered by Guerrero, Andersen and Afifi (2014) as "the most fertile scenario for emotional experience", however, constructs such as gratitude, tolerance and compassion have been little addressed, since their presence in the couple's interaction can affect the physical and psychological health of their members (Hill, Allemand, & Roberts, 2013; Perlman & Sánchez-Aragón, 2009) as well as in their strategies of emotional co-regulation (Butler & Randall, 2013). Based on this, the objective of this study was to examine the effects of gratitude, tolerance and compassion on health and co-regulation of negative emotions in the couple in 900 Mexican adults (460 women and 440 men) with a stable partner. The results show a significant impact of several factors of gratitude and tolerance and less of compassionate love in emotional health, and less in the prediction of function and physical role. The pain was predicted mainly by intolerance, while the vitality was based on altruist love. In addition, there were significant effects of gratitude for the couple they have, emotional support and empathy and tolerance towards the defects in emotional co-regulation strategies. Findings will be discussed in terms of the quality of couple relationship and culture literature.

Do Paris metro passengers give off signs of emotional arousal when interacting with Muslims?

* Martin Aranguren & Francesco Madrisotti

To answer this and other questions, we conducted two similar field experiments in the Paris metro, using a balanced factorial design combining the social identity of a confederate actor (non Muslim vs. Muslim), the sex of the approached passenger and the six stations of the Paris metro where the interactions took place. In the first experiment (n=294), the only thing that varied between the treatment and the control condition was the presence or absence of a headscarf or hijab covering the hair of a female confederate. In the second experiment (n=285), the voluminous beard of a male confederate was used, in combination with other disambiguating elements, to convey that the actor was either a hipster or a Muslim. Following a fixed helping scenario, the confederates approached randomly selected passengers and the interactions were videotaped. We measured emotional arousal by looking at fiddling, on the one hand, and nonfunctional, random leg movements, on the other.
For some people suppression works better! Personality and the effectiveness of emotion regulation strategies

* Dorota Kobylińska, Marcin Zajenkowski, Karol Lewczuk, Konrad Jankowski, Marta Marchlewksa & Maria Wasylkowska

In two experiments we checked what was the relation between chosen personality characteristics and the consequences of instructed reappraisal or suppression in a situation eliciting negative emotions. 60 students participated in Study 1 and 133 - in Study 2. Participants filled in ACS-90 scale measuring action orientation in Study 1 or IPIP scale measuring Big Five personality traits in Study 2. We used movie clips for negative emotion induction and measured emotional state before and after the clip. Emotion regulation strategies of either reappraisal or suppression (vs. no strategy) were activated by written instructions. The results of Study 1 showed that action orientation was a positive predictor of emotional state. Furthermore, activated strategy influenced emotional state of participants with high action orientation and not those with low action orientation: emotional state was more positive in suppression condition then in reappraisal and control conditions. In Study two we found an interaction between conscientiousness and activated strategy in predicting emotional state: suppression was effective for individuals high in conscientiousness but not for those low in conscientiousness. The results shed new light on the role of action orientation in effective coping with negative emotional state suggesting that for people with certain personality traits suppression can be effective, while so far it was rather described as maladaptive and ineffective emotion regulation strategy.

Effect of mouth opening in emotional faces on subjective experience and the early posterior negativity

* Sandra J.E. Langeslag, Liselotte Gootjes & Jan W. Van Strien

Previous studies have examined the role of the eye region in emotional expressions, but the mouth region is understudied. The main goal of this study was to examine how mouth opening in emotional faces affects subjective experience and early automatic attentional capture, as measured by the early posterior negativity (EPN) amplitude. Participants in two studies viewed angry, happy, and neutral faces with mouths open and closed while their electroencephalogram was recorded. Afterwards, participants indicated how unpleasant-pleasant (i.e., valence) and calming-arousing (i.e., arousal) each face made them feel. Angry and happy faces (and neutral faces to a lesser extent) with an open vs. closed mouth made observers feel more extreme valence and arousal. In addition, there generally was an EPN for angry and happy faces (and neutral faces to a lesser extent) with open vs. closed mouths, which suggests that emotional expressions with an open mouth capture early automatic attention more than expressions with a closed mouth. Finally, the effects of mouth opening were somewhat modulated by face gender, but not by observer gender. The current findings contribute to our knowledge of facial expressions and social interaction, but also have relevance for the growing fields of social robotics and digital animation.
Emotions in service: Service employees' emotion regulation and customers' emotions

* Gil Luria, Adi Luria & Arik Cheshin

There is a growing interest in emotion research on how individuals regulate the emotions of others. However, little is known about how organizations can encourage employees to regulate the emotions of others around them and how emotion regulation is related to service outcomes in the case of service employees. The goal of this study was to understand the role of interpersonal emotion regulation (IER) in service organizations by examining its antecedents and outcomes. The study had two main goals: a) testing the association between organizational variables such as service climate and supportive leadership with IER; b) testing the association between IER and customers' emotions and satisfaction from service (service quality). We sampled 175 employees and 246 of their customers. We found that service climate and supportive leadership in the organization are positively associated with employee's positive IER and negatively correlated with employee's negative IER. In turn, we found that employee's negative IER is negatively correlated with the following customer outcomes: 1) customer reports of positive emotions; 2) the positive emotions customers perceived presented to them by the service provider; 3) their satisfaction with the quality of service; 4) their loyalty to the service organization. However, we did not find the expected positive association between service employees' positive IER and the studied four customers' outcomes. We discuss the role of organizational variables in promoting IER and possible explanations for the stronger effect of negative employee IER relatively to positive employees' IER on customers.

Appraisals of faces follow distinct rules of information integration under arousing versus non-arousing conditions

* Martina Kaufmann & Nicola Baumann

Facial expressions are the most studied stimuli in emotion research. In many studies, facial stimuli are presented repeatedly. In this research, we investigated whether appraisals of faces follow distinct rules of information integration under arousing versus non-arousing conditions. Support for this prediction was found in four experiments in which participants observed angry (and fearful) faces that were presented with a direct versus an averted gaze (Experiments 1a, b), on a red versus a grey background (Experiment 2), and after performing a motor exercise versus no exercise (Experiment 3). Under arousing conditions, participants’ appraisals of faces reflected summation (i.e. extremely negative encounters were strengthened by moderately negative encounters) whereas, under non-arousing conditions, appraisals did not reflect summation (i.e. extremely negative encounters were weakened by moderately negative encounters) and could instead be accounted for by three alternative rules of information integration based on averaging, mere exposure, or the number of strong stimuli. These findings are in harmony with the assumption of contemporary appraisal theories of emotion that “the nature of the emotional experience changes each time a new appraisal is added” (Ellsworth & Scherer, 2003, p. 574). The present findings elaborate on the exact nature of this change. People's affective reactions to another person's facial expressions reflect summation under arousing conditions but a different rule of information integration under non-arousing conditions.
Shame-related outcomes are grounded in social relational situations

Ilker Dalgar, Hans IJzerman & Nebi Sümer

Recent research showed that shame associated with both approach and avoidance motivations (De Hooge, Zeelenberg, & Breugelmans, 2010). Present study investigated whether shame links to approach/avoidance motivations depends on social relational situation. Using Fiske's (1992) relational models theory, we suspected whether people would approach or avoid after shame-transgressing event would depend on relational model they were implementing during the event. We recruited 283 (200 females) students and presented 36 short stories in random order, in which protagonists transgressed a moral rule of one of four relational models (Communal Sharing [CS], Authority Ranking [AR], Equality Matching [EM], Market Pricing [MP]). Participants rated each story considering how much they thought protagonist was emotionally aroused and to what degree protagonist would approach or avoid. Because we had no strong prior, we randomly split data (⅔ vs. ⅓) and conducted mixed model analyses with random intercepts using split-half validation. Participants rated significantly higher arousal levels when relational models were CS and AR compared to EM and MP. Approach motivations were highest when protagonists were in superordinate position in AR and in CS relationships, whereas it was at lowest when protagonists were in subordinate position in AR relationship. Avoidance motivations were at highest levels when protagonists were in subordinate position in AR relationship and it was at lowest levels when protagonists were in superordinate relationship in AR and in CS relationships. All results were replicated between two data sets with minor differences. Findings will be discussed considering functional role of shame in regulating social relations.

The Role of Affect in an Ecological Model of Social Intelligence

Rami Gabriel

This paper describes how taking an evolutionary, direct perception approach to affective processes aids in developing a model of social and spatial navigation in non-linguistic animals and humans. Affect in this model is a nonconceptual goad that promotes adaptive control through selection of affordances in relation to valence appraisals of the environment. Ecological psychology describes how perception is an active, adaptive control point for behavior. This is elaborated through Action-Oriented Representations and Pushmi-pullyu representations. Affordances provide the perfect vehicle to demonstrate the unity of perceptual and action systems that manifest imperative forms of informational transfer between creature and environment. The felt property of salience within the perceptual world occurs via affective goads that dynamically covary with homeostatic needs, leading to adaptive action patterns and information-seeking behaviors. Within perception, affect provides direction as a motivating internal context, viz. the biological intention, or conative drive. Intentionality locks onto relevant aspects of the environment in a way that shapes our subpersonal processes, which then serve the intentional aspects of act-planning (Gallagher, 2008). Affect in spatial navigation may play an affordance-like role by suggesting basic direction as spatial attractors - viz. approach or avoid -- towards landmarks (Gallistel, 1990; Rescorla, 2009). I suggest a dynamic reconsolidation process where affective tags (or landmarks) can be shifted and learned in an implicit, unconscious format at the level of secondary affective processes, in both spatial
navigation and the involuntary imagination of the dream state (Solms & Panksepp, 2012).

**How do people choose to regulate other’s emotions?**

Meghann Matthews, Thomas L. Webb & Gal Sheppes

The intensity of emotions has repeatedly been shown to influence how people choose between strategies to control their emotions (e.g., Sheppes et al., 2011, 2014). People also frequently attempt to help others to regulate their emotions; however no research to date has examined whether intensity also influences how people choose to regulate other’s emotions. Two studies (N = 35 and N = 50) exposed participants to images of varying intensity and asked them to choose whether to use distraction or reappraisal to control both their own emotions (i.e., intrapersonal emotion regulation) and another person’s emotions (i.e., interpersonal emotion regulation). In line with previous research, both studies found an effect of intensity such that distraction was preferred over reappraisal for regulating emotions in response to high intensity images. However, this effect was significantly weaker when participants were tasked with helping the other person to control their emotions – that is, participants were more willing to choose reappraisal in response to the high intensity images when helping someone else to regulate their emotions compared to when regulating their own emotions. These findings suggest that, while the intensity of emotions may also influence how people choose to help others to regulate their emotions, intensity has a weaker effect in interpersonal than in intrapersonal contexts. Possible explanations for this difference between intrapersonal and interpersonal contexts will be examined.

**Infidelity and Revenge: Is Shame a Trigger Emotion in Women with Dependency to the Partner?**

Ana María Beltrán-Morillas, Inmaculada Valor-Segura & Francisca Expósito

Motivation for revenge has been designated as the main component of unforgiveness because it arises as a primary response to severe relational transgressions, being mainly relevant in the field of romantic relationships. Within this context, infidelity has been judged as an unforgivable betrayal that undermines the sense of union and shared identity by the couple, threatening the stability of the relationship. As a result, the offended person feels humiliation and experiences strong feelings of shame, judging the person with whom affair occurs as a relevant aspect in the subsequent response to betrayal. Moreover, empirical evidence has revealed that women with high levels of dependency can react with greater coercive behaviours faced with different severe conflicts, mainly when the situation is interpreted as a threat to the stability of the relationship. Through an experimental study between subjects (N = 216 women from general population), this research aims to analyze the role of dependency to the partner and shame on motivation for revenge of sexual infidelity, depending on the person with whom affair is committed (unknown person vs. ex-partner). Participants were presented with hypothetical scenarios of sexual infidelity varying the third person involved, and they were asked to imagine living the situation with their partner. The results showed that high dependency to the partner predicted greater revenge faced with
infidelity with an ex-partner. The results also revealed that dependency was positively related to shame, which in turn led to greater revenge in light of the infidelity with an ex-partner.

Research on CMC with Bio-emotion Estimate Method

Chen Feng & Midori Sugaya

Recently Computer-mediated communication (CMC) play an essential role in our daily life. Normally, CMC's are using approaches such as e-mail, video, audio, text chat and so on. With there approaches, CMC not only help users to share logical information during long-distance but also help users to share emotional information. However, CMC is unlike face-to-face communication, nonverbal cues such as tone and physical gestures, which assist in conveying the message, are lost through CMC. Moreover, this causes users' misunderstand or overestimate of their emotion. Receivers of such messages could also be confused with such emotion expressed. Previous researches of psychology showed that human biological signal is related to changing of emotion. Based on Russell’s Circumplex Model of Affect, affective computing researchers developed bio-emotion estimate method to recognize human's bio-emotion objectively. To help users avoid subjectively misunderstanding in CMC, we are considering of combine bio-emotion estimate method with CMC. To compare this way with normal CMC, we defined emotion estimated by biological information as objective emotion, emotion estimated by users as subjective emotion. Then we planned an experiment to compare three different patterns of sending emotion. These patterns are "sending only objective emotion", "sending only subjective emotion" and "sending both objective emotion and subjective emotion." As a hypothesis, we assumed that objective emotion could get a higher evaluation. However, on the contrary, objective emotion got the lowest evaluation. In this talk, the author will introduce this experimental process and results in detail, and discuss the results and future research directions.

Bio-sensing Emotion Estimated Method and Application

Midori Sugaya

It is known that emotions can be evaluated on two axes, such as valence and arousal. We have studied the method to analyze a set of values measured by the activities of the autonomic nerves (valence) and the activity of the frontal lobe with EEG (arousal), and estimate short-term emotions by these sensor measurements results. We named this method Bio-sensing Emotion Estimated Method, and evaluate its physical characteristics, and develop technology to control emotion based on its value. In this research, we will discuss the credibility of the evaluation using biometric information and its application, showing the result of the research.
“When in Rome, do as the Romans do” - History of conformism research

Dijana Sulejmanović

Conformity phenomena can occur in small groups, but also in society as a result of the influence of the others and the pressures of the group, and also as an act of comparing attitudes, beliefs and behaviors with the norms of the group. The oldest known experiment on the social influence, or the conformism, is the work of Muzafer Sherif, which showed that an individual not only adjusts to the majority, but continues to use the group’s reference framework as his own. Sherif’s work was continued by Solomon Asch, whose research of conformism is the foundation of all later work on this social phenomenon. Do individuals change their opinion under the influence of the social environment or they abandon their own attitudes only seemingly and privately retain their beliefs? What are the disadvantages of the previous research of conformism and how conformism is researched in our regions and in the world generally? Our goal is to present the history and development of conformism research, from the pioneering works of Sherif and Asch to today, by placing the obtained results in a historical and social framework.

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What Poetry Does to the Emotional Brain: A perspective from medieval England

Sarah McNamer

This paper is situated at the crossroads of two disciplines: the history of emotion and the study of literature. Taking up the Middle English poem Pearl, an elaborate alliterative poem that seeks to console a grieving father for the loss of his young daughter, it argues that poetry in fourteenth-century England was understood to be capable of producing salutary, therapeutic effects. The paper excavates a historical concept (circulating in medical texts) of the “affective antidote” and shows how Pearl is designed to produce healing effects through two sensory experiences it produces in the brain: 1) a sensation of shimmering light and color; and 2) soothing, polyphonic verbal music. In part, what the poet appears to be doing here is anticipating, and guiding the reader through, a version of what Bruce Ecker calls a “juxtaposition experience” (Unlocking the Emotional Brain). The paper concludes with some reflections on what contemporary research in psychology and affective neuroscience might learn from closer attention to Pearl and works like it. Often, literature – especially literature from the distant past – is considered merely decorative, or irrelevant to serious research on emotion. Is it? Or can complex, sophisticated poems like Pearl point us moderns towards new ways of conceiving of emotional phenomena – in this case, the interplay between grief and consolation?

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Emotion Manipulation Through Music

Annaliese Micallef Grimaud

This paper focusses on the relationship between music and perceived emotions, specifically looking at how altering the structure and expressive cues of a musical composition affects the perceived emotional expression. Although research on music and emotions has been carried out for over a century, several issues have yet to be resolved. One of the main issues has been retaining ecological validity of music while it is being altered to communicate different emotional expressions. This study tackles this issue by using specifically composed music examples that can be regarded as ‘real music’ and hold ecological validity even when manipulated. Additionally, this paper takes a different approach to the conventional way of how music structure affects perceived emotion. During this study, participants are instructed to alter parameters, such as tempo, mode and articulation, of the music to convey different emotional expressions. This approach allows to discover the distinct values and combinations of the structural parameters in relation to the desired emotions. A detailed account of the differences and similarities between the music examples conveying the same emotional expression is given, and the optimal cue combinations for each of the different perceived emotional expressions are presented and discussed within the wider context of emotion communication in music.
Organization
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