



15th Annual Meeting of the European Society for Philosophy and Psychology University of Geneva, 9-12 July 2007

Welcome!

The Department of Philosophy of the University of Geneva and the Swiss National Center for Competence in Research on the Affective Sciences welcome you to the 15th Annual Meeting of the European Society for Philosophy and Psychology, which takes place in Geneva from the 9th to the 12th of July 2007.

The conference is supported by the Rectorat of the University of Geneva, the “Commission Administrative” and the Faculty of Humanities of the University of Geneva, the Société Académique (Geneva), the Marie Gretler Foundation (Zurich), the Swiss Academy of Social Sciences and Humanities (ASSH/SAGW), *dialectica*, Blackwell Publishing and the Conférence Universitaire de la Suisse Occidentale.

The aim of the ESPP is to promote interaction between philosophers and psychologists on issues of common concern. Psychologists, neuroscientists, linguists, computer scientists and biologists are encouraged to report experimental, theoretical and clinical work that they judge to have philosophical significance; and philosophers are encouraged to engage with the fundamental issues addressed by and arising out of such work.

We hope that this year’s conference will give us the opportunity to make some steps in this direction. Welcome to Geneva!

Kevin Mulligan, conference organiser
Philipp Keller, conference coordinator
Marie Oreiller, staff member
Sylvain Hurni, staff member
Amanda Garcia, staff member
Jessica Pallie, staff member
Rina Ghelfi, staff member
Marion Hämmerli, staff member

ESPP 2007 Geneva - Welcome





Program

ESPP 2007 Geneva - Program

	Monday 9th of July	Tuesday 10th of July	Wednesday 11th of July	Thursday 12th of July
8 am	registration	registration	registration	registration
9	Paul Harris (Harvard): Trust in Testimony	Michael Waldman (Göttingen): The Causality of Moral Dilemmas	James Blair (Bethesda): The Development of Moralities and Immoralities: The brain bases and cognitive-affective functional processes	Zoltan Szabo (Yale): The Determination of Content
10.15	coffee break	coffee break	coffee break	coffee break
10.45	symposium: Moral Emotions , opened by Kevin Mulligan, with Peter Goldie (Manchester), Paul Harris (Harvard), Klaus Scherer (Geneva)	symposium: Mutual Exclusivity , opened by Josef Perner, with Ellen Markman (Stanford), Lori Markson (Berkeley), Martin Doherty (Stirling)	symposium: Children's Conception of Desire , opened by Johannes Roessler, with Josef Perner (Salzburg), Fred Schueler (Delaware)	symposium: Attention in Neuropsychology and Philosophy , opened by Martin Davis, with Anne Aimola Davies (ANU), Philippe Chuard (Dallas), Robert Rafal (Bangor), Patrik Vuillemier (Geneva)
1 pm	lunch break	lunch break	lunch break 1.30 ESPP business meeting	lunch break
2.30	paper sessions A1 Meaning A5 Action, causation A9 Agency, self A13 Concepts	paper sessions A2 Communication A6 Emotion A10 Symp: Knowledge Processing A14 Experience	paper sessions A3 Intentionality A7 Emotion A11 Folk psychology, ethics A15 Perception	paper sessions A4 Symp: Emotion and Attention A8 Evolution, language, intention A12 Number, knowledge A16 Perception
4.30	coffee break	coffee break	coffee break	<i>dialectica</i> reception
5 pm	paper sessions B1 Theory of mind, folk psychology B4 Consciousness, attention B7 Language B10 Causation, imagination, perception	5-6 poster session 6-7 paper sessions B2 Knowledge, self-knowledge B5 Causation, counterfactuals B8 Traits, emotion B11 Modularity	5-6 poster session 6-7 paper session B3 Knowledge, self-knowledge B6 Metaphysics, logic B9 Traits, emotion B12 Innateness, perception	5.15-6.30 Keith Stenning (Edinburgh): The Origin of Specialities
8 pm			Conference Dinner	



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Programme

ESPP 2007 Geneva - Programme

	Lundi 9 juillet	Mardi 10 juillet	Mercredi 11 juillet	Jeudi 12 juillet
8 am	enregistrement	enregistrement	enregistrement	enregistrement
9	Paul Harris (Harvard): Trust in Testimony	Michael Waldman (Göttingen): The Causality of Moral Dilemmas	James Blair (Bethesda): The Development of Moralities and Immoralities: The brain bases and cognitive-affective functional processes	Zoltan Szabo (Yale): The Determination of Content
10.15	pause café	pause café	pause café	pause café
10.45	symposium: Emotions Morales , ouvert par Kevin Mulligan, avec Peter Goldie (Manchester), Paul Harris (Harvard), Klaus Scherer (Geneva)	symposium: Exclusivité Mutuelle , ouvert par Josef Perner, avec Ellen Markman (Stanford), Lori Markson (Berkeley), Martin Doherty (Stirling)	symposium: La Conception Enfantine du Désir , ouvert par Johannes Roessler, avec Josef Perner (Salzburg), Fred Schueler (Delaware)	symposium: L'Attention en Neuro-Psychologie et en Philosophie , ouvert par Martin Davis, avec Anne Aimola Davies (ANU), Philippe Chuard (Dallas), Robert Rafal (Bangor), Patrik Vuillemier (Geneva)
13	dîner	dîner	dîner	dîner
14.30	sessions parallèles A1 Meaning A5 Action, causation A9 Agency, self A13 Concepts	sessions parallèles A2 Communication A6 Emotion A10 Symp: Knowledge Processing A14 Experience	sessions parallèles A3 Intentionality A7 Emotion A11 Folk psychology, ethics A15 Perception	sessions parallèles A4 Symp: Emotion and Attention A8 Evolution, language, intention A12 Number, knowledge A16 Perception
16.30	pause café	pause café	pause café	réception <i>dialectica</i>
17	sessions parallèles B1 Theory of mind, folk psychology B4 Consciousness, attention B7 Language B10 Causation, imagination, perception	17-18 présentation d'affiches 18-19 sessions parallèles B2 Knowledge, self-knowledge B5 Causation, counterfactuals B8 Traits, emotion B11 Modularity	17-18 présentation d'affiches 18-19 sessions parallèles B3 Knowledge, self-knowledge B6 Metaphysics, logic B9 Traits, emotion B12 Innateness, perception	17.15-18.30 Keith Stenning (Edinburgh): The Origin of Specialities
20			Souper officiel du Colloque	



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ESPP 2007 - Parallel Sessions

Parallel Sessions on Monday, 9th of July

First Afternoon Session 2:30 - 4:30

A1. Meaning

Josep Macia: On the relationship between semantic theories and meaning
Bibiane Rendl & Josef Perner: Children's understanding of identity statements
Nausicaa Pouscoulous: Are scalar inferences implicit or explicit?
Sally Parker Ryan: Semantics, Pragmatics and Norms of Meaning

A5. Action, causation

Vivienne Brown: Reconceptualising 'action' and 'agency': a new approach to libertarianism?
Patrick Burns & Teresa McCormack: Inferring causal structure: the role of timing
Nancy Brenner-Golomb: Does voluntary attention imply free will?
Leonardo De Mello Ribeiro: Hedonic Desires and Reasons for Action

A9. Agency, self

Francesca De Vecchi: The Agency of the Spontaneous Acts
Hannes Rakoczy: "That's just the way it's done!" – Young children's understanding of the normative structure of conventional action forms
Harriet Over & Merideth Gattis: Having and Understanding Intentions
Louise Röska-Hardy: Autobiographical Memory, Narrative and the Self

A13. Concepts

Elena Zinchenko & Jesse Snedeker: The Role of Sensory-Motor Information in Concepts
Malte Dahlgrün: Recognitional concepts
Jussi Jylkkä, Henry Railo & Jussi Haukioja: Psychological essentialism and externalism
Peter Wyss: Emergence And The Individuation Of Kinds

Second Afternoon Session 5 - 7

B1. Theory of mind, folk psychology

Mark Jary: Assertion and false belief attribution
Laurence Kaufmann & Fabrice Clément: Are theory of mind and deontic reasoning two independent subsystems of social cognition? Evidence from development
Richard Griffin & Daniel Dennett: What does the study of autism tell us about the craft of folk psychology?
Henrike Moll & Michael Tomasello: Infants' Understanding of What Others See and Know

B4. Consciousness

Elizabeth Irvine: The Exclusion-Failure Paradigm and Signal Detection Theory - P without A consciousness?
Dorothea Debus: Memory, Imagination, And Narrative
Benedicte Veillet: Concept Acquisition and the Content of Experience
Catherine Stinson: Attention, Volition, and the Ghost in the Machine

B7. Language

Richard Moore: Dennett's Account of the Child's Accession to Language and Thought
Manuel Hernández Iglesias: Literality and the semantics/pragmatics distinction
Mark Cain: Linguistics and Philosophy: A Response to Devitt
Patrick Hawley: Attention and Proper Names

B10. Causation, imagination, perception

Panu Raatikainen: Mental Causation and the Interventionist Theory of Causation
Jean-Yves Beziau: Imagination in Perspective
Juan Suarez: Is Disjunctivism the best account of perceptual content?
Philipp Keller: Counterevaluatives





ESPP 2007 - Parallel Sessions

Parallel Sessions on Tuesday, 10th of July

First Afternoon Session 2:30 - 4:30

A2. Communication

Esther Romero & Belén Soria: Metaphors: what is said or what is implicated?

Erika Nurmsoo & Elizabeth J. Robinson: Learning from others: Children's understanding of speaker inaccuracy

Richard Breheny: What Infant Reference Studies Can Tell Us About the Nature of Human Communication

Tanya Behne: Early communication and pragmatics – Exploring young children's comprehension of deictic and iconic gestures

A6. Emotion

Olivier Massin: Mixed feelings and the feeling of effort: when we are pleased because we are displeased

Aaron Ben-Ze'ev: Hating the One You Love

Astrid Hopfensitz & Ernesto Reuben: The importance of emotions for the effectiveness of social punishment

Agnes Moors: Automatic constructive appraisal as a candidate cause of emotion

A10. Symposium: Aspects of Knowledge Processing (Ilmberger, Glatzeder)

Josef Ilmberger & Britta Glatzeder: Kinds of Knowledge: a taxonomical approach

Riccardo Manzotti: From phenomenal experience to knowledge

Susanne Neufang et al.: Iconic knowledge processing in children – the neural correlates of time discrimination

Michael Öllinger: "I morph therefore I know": The interplay between conceptual morphing processes and knowledge

A14. Experience

Stuart William George Derbyshire, Abhijit Chaudhuri & Peter O Behan: Is Fish Pain a Misnomer?

Ursina Teuscher: Time-space synesthesia and conceptual time-space mappings: A look at neural bases and at the synesthete in all of us

Sandrine Darsel: Musical experience and sentimental education

Chiara Guarda: Functionalism and Experience

Second Afternoon Session 6 - 7

B2. Knowledge, self-knowledge

Fabian Dorsch: Imagining and Knowing

Lisa Bortolotti: Does authorship contribute to self-knowledge?

B5. Causation, counterfactuals

Sarah R. Beck: What do children understand about what almost happened?

Teresa McCormack, Patrick Burns & Stephen Butterfill: Detectingblickets: What processes underpin young children's causal judgments?

B8. Traits, emotion

Sergi Rosell: Skepticism About Character Traits

Matthew Richard Broome, Louise Johns & Isabel Valli: Decision-making and delusion formation in people at risk for psychosis

B11. Modularity

Dario Taraborelli & Ángeles Eraña: Drilling down to modules. On the need of Individuation Criteria for Cognitive Modularity

Giuseppe Lo Dico: A Module For Decision-Making?



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ESPP 2007 - Parallel Sessions

Parallel Sessions on Wednesday July 11

First Afternoon Session 2:30 - 4:30

A3. Intentionality

Stéphane Lemaire: The construction of self-conscious emotions

Marius Dumitru: What It Is Like to Think

Mark Sprevak: Functionalism and the extended mind

Nicholas Shea: Connectionist Representational Development

A7. Emotion

Otto Bruun & Fabrice Teroni: Shame and its Evolution

Julien Deonna & Olivier Massin: Do emotions exist?

Åsa Carlson: Gibbard and moral emotions

Alison E. Denham: Reading Distress: Selective Egocentrism in Factor 1 Psychopaths

A11. Folk psychology, ethics

Charlotte Bleasdale: More Troubles for Churchland

Annika Wallin: Is egocentric bias evidence for Simulation theory? A critique of Goldman

Karsten Stueber: The Ethical Dimension of Folk Psychology?

Alberto Masala: Virtue Theory and Its "Normative Niche": How to Defend Virtue Ethics from The Attack of Situationist Social Psychology

A15. Perception

Christopher Gauker: Similarity and Seeing-As

Anirban Mukherjee: Understanding Helmholtz on Perception

Emmanuelle Glon: A Window into a Virtual World; compensation theory and seeing-in

Keith Allen: Perceptual Constancy

Second Afternoon Session 6 - 7

B3. Knowledge, self-knowledge

Anita Konzelmann-Ziv: Epistemic Feeling – Truth-Conduciveness and Shared Intentionality

Jun Luo: Ontological Norms Wanting Mechanism: Principled Explanation in Infancy

B6. Metaphysics, logic

Aisling Crean: Humean Humility

Margarita Vázquez: Solutions to the Surprise Exam Paradox

B9. Traits, emotion

Ivo Wallimann: Equal Opportunity and Emotions

Catrin Misselhorn: In Defense of Moderate Moralism. An Emotion-based Account

B12. Innateness, perception

Matteo Mameli: On the Theoretical Function of the Notion of Innateness

Gloria Ayob: Perceptual switching: understanding the significance of the dynamical account of perception





Parallel Sessions on Thursday, July 12

First Afternoon Session 2:30 - 4:30

A4. Symposium: Emotion and Attention (David Sander)

Tobias Brosch & David Sander: Relevance detection and its role in attentional capture

Patrik Vuilleumier: Cerebral underpinning of “emotional attention”

Christine Tappolet: Emotion and attention: a necessary connection?

A8. Evolution, language, intention

Ralph Schumacher: Finding the Right Level of Explanation: The Educational Implications of Neuroscience

Murray Clarke: Does Error Evolve?

Paolo Bonardi: The Fregean Theory of Belief and the Anaphora

Jan Slaby: Affective Intentionality – Identifying the Key Issues

A12. Number, knowledge

Valeria Giardino: The notion of counting

Mario Santos-Sousa: The “Bootstrapping” Metaphor

Friederike Moltmann: Reference to Numbers in Natural Language

Julien Dutant: Knowledge Ascriptions and Gradability

A16. Perception

Gillian Waters & Sarah Beck: The influence of information access on young children’s understanding of perceptual modalities as sources of knowledge.

Hemdat Lerman: Perceptual experience and correctness conditions

Matthew Nudds: Visually guided action

Philippe Chuard: Chromatic Appearance, Intransitivity and Context-Shift

ESPP 2007 - Parallel Sessions



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ESPP 2007 - Poster Sessions

Poster Sessions

Maxim Abelev, "Young children's talk about pretense as non-literal language use: the role of pragmatics"

Daniel Acquah & Peter Mitchell & Fenja Ziegler, "Towards a functional account of theory of mind"

Sarah R Beck & Kevin J Riggs & Sarah L Gorniak, "Executive demands in preschoolers" counterfactual thinking"

Markus Christen & Adrian Jaeggi & Ina Kaufmann & Nicole Miller & Claudia Rudolf von Rohr, "Naturalizing Moral Agency - Prospects and Perils"

Marian Counihan, "What's logic got to do with it?: reasoning and language use in logical reasoning tasks"

Olga Fernández-Prat, "Philosophy and Neuroscience: the Case of Attention"

Susanne Grassmann & Jennifer Kittel & Michael Tomasello, "Mutual Exclusivity vs. Pragmatics in early Word Learning"

Grainne Ni Mhaille & Jean Quigley, "The body in health psychology"

Hai-Sook Kim & Kyungwon Seo, "The effect of the exposure to the hostile-sexist and benevolent-sexist ideologies and attitudes on self perception"

Anna Elbieta Melon & Maciej Haman, "The development of understanding of the ambiguous emotions"

Kim Minjung & Jung Hyosun & Jeong Woorim, "fMRI brain activation during second-order false-belief task in healthy adults"

Lee Myung, "The relation of married men and woman's differentiation of self and marital adjustment"

Kwang B Park & Ji-sook Nam, "Development of a Paper-and-Pencil Test to Measure Eye-Hand Coordination as an Application of Cybernetics Principle"

SooJin Park & Kyung Ja Cho & Hei Rhee Ghim & Eun-Hye Park & In-Hye Song & Su-Mi Yi, "Developmental change of mind reading"

Erika Nurmsoo & Brian Scholl, "Word learning and unlearning: Preschoolers revise the meanings of newly learned words"

Jody Osborn & Stuart W. Derbyshire, "Pain in response to unpleasant visual stimuli"

Jean-Claude Pages, "Programmable Scenarios as future supports for Philosophy"

Raphael van Riel, "What an Epiphenomenalist's Mind Can Do"

Olga Liverta Sempio & Antonella Marchetti & Giulia Cavalli, "Theory of Mind and Alexithymia in children"



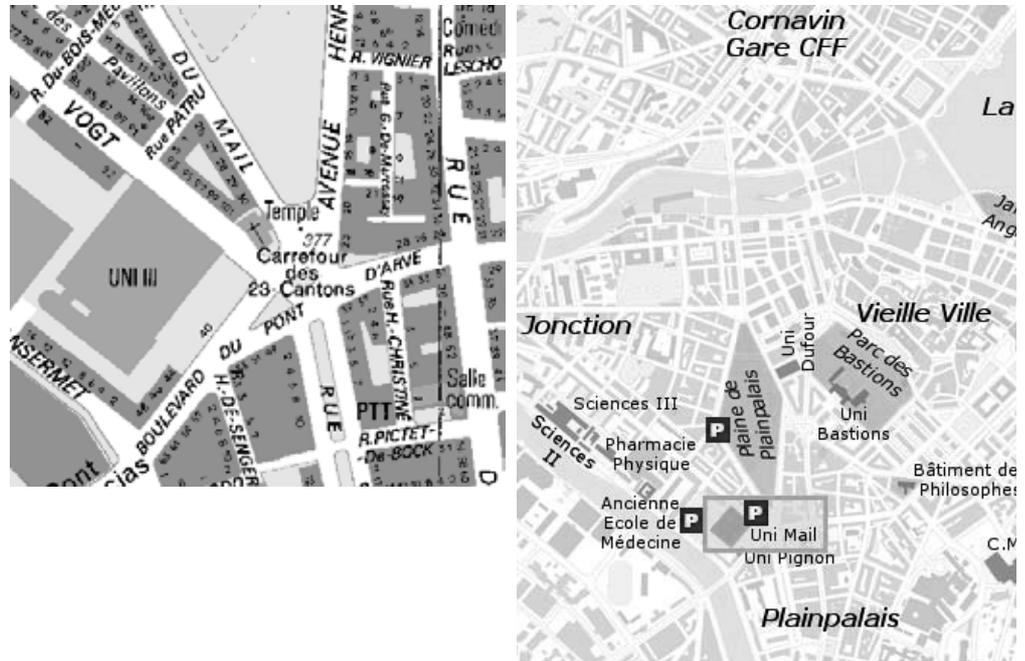


ESPP 2007 Practical Information

Practical Information

The conference takes place in the university building “Uni Mail”, in the south-east corner of the “Plaine de Plainpalais”. The address is:

Uni Mail
Boulevard Carl Vogt 102
1211 Genève 4



The plenary sessions and invited symposia will be held in room 150 on the ground floor, the parallel session in the rooms 1130, 1140, 1160, 1170 and 1193, on the two floors just above the plenary sessions.

Talks in the parallel sessions should be no longer than 15 minutes, leaving time for 10 minutes discussion and a 5 minute break. There will be computers, beamers and overhead projectors available in all rooms. Please just bring your USB.

We hope to be able to provide conference participants with temporary passwords for wireless access to the university LAN.

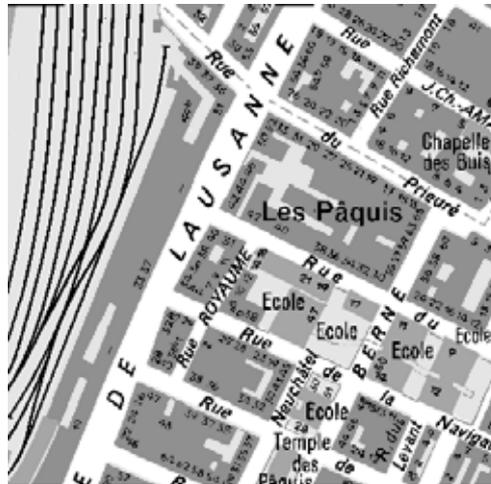




ESPP 2007 Practical Information

Conference Dinner

The conference dinner will be held on the evening of Wednesday 11th of July at 8 pm in the “Comptoir”, rue de Richemont 9, 1202 Geneva. The dinner costs 60 CHF including some wine or beer. Please register before Monday evening.



How to get there from the conference venue: Head southwest on Boulevard du Pont d'Arve toward Quai Ernest Ansermet, turn left at Quai Ernest Ansermet, continue on Quai Charles Page, turn left at Rue Rodo, Rue Rodo turns left and becomes Rue Hugo de Senger, turn right at Boulevard du Pont d'Arve, continue 1.4 km. Then turn right at 1/Rue des Terreaux du Temple, turn left to stay on 1/Rue des Terreaux du Temple, continue for 0.8 km. Then turn right at Rue Jean-Charles Amat, turn right at Rue de Richemont.





The European Society for Philosophy and Psychology (EuroSPP)

The European Society for Philosophy and Psychology is perhaps the most successful interdisciplinary society in Europe which involves both empirical research on the mind-brain and the humanities. Its annual meetings typically attract around 180 participants. Recent meetings have taken place in Belfast (2006), Lund (2005), Barcelona (2004), Turin (2003) and Lyon (2002).

The aim of the Society is “to promote interaction between philosophers and psychologists on issues of common concern”. Psychologists, neuroscientists, linguists, computer scientists and biologists are encouraged to report experimental, theoretical and clinical work that they judge to have philosophical significance; and philosophers are encouraged to engage with the fundamental issues addressed by and arising out of such work. In recent years ESPP sessions have covered such topics as spatial concepts, simulation theory, attention, problems of consciousness, emotion, perception, early numerical cognition, infants’ understanding of intentionality, memory and time, motor imagery, counterfactuals, the semantics/pragmatics distinction, reasoning, vagueness, mental causation, action and agency, thought without language, externalism, connectionism, and the interpretation of neuropsychological results.

Contact: Dr Matthew Nudds, Department of Philosophy, The University of Edinburgh, David Hume Tower, George Square, Edinburgh EH8 9JX, United Kingdom Tel. +44 (0)131 6503651. E-mail: matthew.nudds@ed.ac.uk

Programme Chairs for this year’s ESPP

Stephen Butterfill, Philosophy, University of Warwick
Louise McNally, Linguistics, University Pompeu Fabra, Barcelona
Elizabeth Robinson, Psychology, Warwick

Committee

Alice ter Meulen, President, Linguistics and Cognitive Science, University of Groningen
Josep Macia, Secretary, Philosophy, Barcelona
Matthew Nudds, Treasurer, Philosophy, Edinburgh
Richard Breheny, Linguistics, University College London
Josep Call, Psychology, MPI for Evolutionary Anthropology and co-director of the Wolfgang Köhler Primate Research Center in Leipzig, Germany
Zoltan Dienes, Psychology, University of Sussex, Brighton
Elisabeth Pacherie, Philosophy, Institut Jean Nicod (CNRS-EHESS-ENS, Paris)
Louise Röska-Hardy, Linguistics, University of Dortmund, Germany
Bernhard Schröder, Information Officer, Linguistics, University of Bonn

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Anthony Marcel, Sen. Scientist, MRC-CBU - Cambridge
Christopher Peacocke, FBA Philosophy, Oxford
Josef Perner, Psychology, Salzburg
Lawrence Weiskrantz, FRS Psychology, Oxford

ESPP membership

The annual ESPP membership fees are £25 for full membership, £5 for student membership.

Euro SPP





NCCR in Affective Sciences

The NCCR in Affective Sciences

In 2005 Geneva became the leading house for the national research pole (NCCR) in affective sciences (<http://www.affective-sciences.org/>), of which the conference organiser Kevin Mulligan is one of the two Deputy-Directors.

The Swiss National Centre for Competence in Research (NCCR) in Affective Sciences is financed by the Swiss federal government and administered by the Swiss National Science Foundation. It is the first research centre in the world dedicated to the interdisciplinary study of emotions and their effects on human behavior and society. Its director is the psychologist Klaus Scherer. Kevin Mulligan and the neuropsychologist Martial Van der Linden are deputy directors.

The Centre consists of a network of major research groups and associate members at six Swiss universities. It brings together internationally renowned Swiss scientists and scholars, who have a long history of close collaboration both among each other and with leading researchers in major universities around the world. This genuinely interdisciplinary competence centre integrates empirical and experimental research (in neuroscience, psychology, economics, and the social sciences), work in the humanities (on the history of religion, cultural value systems, the philosophy of mind, and emotion in literature and the arts), and the study of normative bases and practical applications in law.

The Centre trains the next generation of researchers in the new field of Affective Sciences through an ambitious program of doctoral and postdoctoral education, emphasizing interdisciplinary research skills and values.

The Centre's research program is structured around three aspects of emotions: emotions as complex multi-faceted reactions to our surroundings, emotions as disruptive states requiring control and regulation, and emotions as themselves a regulating force in society. Consequently the individual research projects are organised around three domains of research related to these aspects :

- emotion elicitation and perception,
- emotion regulation,
- and social functions of emotions.

The ESPP meeting in Geneva will provide a unique opportunity for interaction between colleagues from all over Europe and the members of the 11 sub-projects which make up the NCCR in Affective Sciences.

The ESPP meeting forms an important part of the activities of the NCCR during 2007, in particular of its postgraduate programme.



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Présentation de l'ESPP 2007

Quinzième rencontre annuelle de la Société Européenne pour la Philosophie et la Psychologie, Université de Genève, Suisse, du 9 au 12 Juillet 2007

Description générale

Le Département de Philosophie de l'Université de Genève et le Centre National Suisse pour la Recherche dans les Sciences Affectives vous invitent à la quinzième rencontre de la Société Européenne pour la Philosophie et la Psychologie qui aura lieu du 9 au 12 Juillet 2007 à Genève. L'organisateur local de l'édition 2007 est le professeur Kevin Mulligan de l'Université de Genève.

La Société Européenne pour la Philosophie et la Psychologie (<http://www.eurossp.org/>) est la plus grande rencontre interdisciplinaire d'Europe sur la psychologie impliquant des recherches dans les sciences empiriques et dans les sciences humaines. Ses réunions annuelles attirent chaque année plus d'une centaine de personnes. Les dernières éditions ont eu lieu à Belfast (2006), Lund (2005), Barcelone (2004), Turin (2003) et Lyon (2002).

La rencontre de 2007 aura lieu à Genève et se déroulera sur quatre journées durant lesquelles 120 intervenants présenteront plus d'une centaine de conférences. Les meilleurs spécialistes mondiaux dans des disciplines aussi diverses que la psychologie, la philosophie, la linguistique et les sciences cognitives (comme James Blair (MINH, Bethesda, USA), Michael Waldmann (Göttingen), Zoltan Szabo (Yale), Keith Stenning (Edinburg), Peter Goldie (Manchester) et Paul Harris (Harvard)), participeront à cet événement.

Les rencontres de l'ESPP ont couvert de nombreux sujets par le passé, tels les concepts spatiaux, la théorie de la simulation, l'attention, les problèmes de la conscience, l'émotion, la perception, la cognition numérique précoce, la compréhension de l'intentionnalité des bébés, la mémoire et le temps, l'imagerie moteur, les contrefactuels, la distinction sémantique/pragmatique, le raisonnement, le vague, la causation mentale, l'action, la pensée sans le langage, l'externalisme, le connectionisme, et l'interprétation des résultats neuropsychologiques.



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Présentation de l'ESPP 2007

But de l'ESPP et intérêt médiatique

Le but de l'ESPP est de promouvoir l'interaction entre les philosophes, les psychologues et les linguistes sur des questions pour lesquelles ils ont un intérêt commun. Les psychologues, neuroscientifiques, linguistes, informaticiens et biologistes sont encouragés à rapporter le travail expérimental, théorique et clinique, qui leur semble avoir une importance philosophique. De même, les philosophes sont encouragés à s'intéresser aux problèmes fondamentaux dont traitent ces travaux et qui en découlent.

Les sujets traités cette année sont sérieusement susceptibles d'intéresser le grand public. Il sera beaucoup question d'émotions puisque le comité de direction a convenu que les émotions constitueraient le thème-phare de la rencontre : qu'est-ce que la honte, qu'est-ce qui la distingue de la culpabilité ? Qu'est-ce qu'une émotion artistique ? Mais aussi comment expliquer les défaillances émotionnelles des psychopathes ? Qu'en est-il de la conscience morale des enfants ?

Par ailleurs, le simple fait que l'ESPP se déroule cette année à Genève est la manifestation de l'importance scientifique croissante de l'Université de Genève en psychologie, philosophie et sciences cognitives.

Après être devenu en 2005 le pied à terre officiel du Centre National du pôle de recherche en sciences affectives (NCCR), Genève est bel et bien devenu l'une des capitales européennes dans le domaine de la psychologie et des sciences affectives. L'ESPP est l'occasion médiatique de faire connaître au grand public le succès indéniable de l'Université de Genève dans ce domaine de recherches.



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Abstracts of invited talks

Abstracts of invited talks

Paul Harris (Harvard): Trust in Testimony

Monday, 9th of July, MS150, 9 - 10.15 am

Children rely extensively on others' testimony to learn about the world but from an early age, their reliance is tempered by selective trust in particular informants. Three- to 5-year-olds endorse the claims of familiar versus unfamiliar informants. They also prefer information from someone who has named objects correctly in the past rather than misnamed them. Indeed, 5-year-olds weigh past accuracy more heavily than familiarity. Future research is likely to pinpoint exactly how children discriminate among informants. Do they trust informants who tell the truth or those who comply with social convention?

Michael Waldmann (Göttingen): The Causality of Moral Dilemmas

Tuesday, 10th of July, MS150, 9 - 10.15 am

Most people consider it morally acceptable to redirect a trolley that is about to kill five people to a track where the trolley would kill only one person. In this situation, people seem to follow the guidelines of utilitarianism by preferring to minimize the number of victims. However, many people would not consider it moral to drive a train with a passenger towards the trolley, which would stop the trolley but kill the passenger. In this scenario our intuitions seem more in line with the principles of deontology. Several psychological theories have recently been suggested to account for these diverging intuitions. According to the moral grammar view we are born with a complex abstract moral grammar that explains these intuitions. According to an alternative view, the causal-model theory of moral reasoning, moral dilemmas activate conflicting moral principles for which no ready-made resolutions are immediately available. Therefore our intuitions are influenced by domain-general mechanisms that guide our attention when we plan interventions and consider their causal outcomes. Several experiments on variations of the trolley problem support the causal-model view.





Abstracts of invited talks

James Blair (NIMH, Bethesda): The development of moralities and immoralities: The brain bases and cognitive-affective functional processes

Wednesday, 11th of July, MS150, 9 - 10.15 am

In this paper, I will consider the development of morality. Four main claims will be made. First, that there are multiple, partially separable neuro-cognitive architectures that mediate specific aspects of morality: social convention, care-based morality, disgust-based morality and fairness/justice. Second, that all aspects of morality, including social convention, rely on affect based learning systems. Third, that these affect based learning systems are under considerable genetic influence. Fourth, that the neural systems particularly important for care-based morality are the amygdala and medial orbital frontal cortex. The functional roles of these systems will be considered. Dysfunction in these systems can lead to the development of psychopathy.

Zoltan Szabo (Yale): The determination of content

Thursday, 12th of July, MS150, 9 - 10.15 am

I identify a notion of compositionality at the intersection of the different notions philosophers, linguists, and psychologists are concerned with. The notion is compositionality of content: the idea that the content of a complex expression in a context of its utterance is determined by its syntactic structure and the contents of its constituents in the contexts of their respective utterances. Traditional arguments from productivity and systematicity cannot establish that the contents of linguistic expressions are compositionally determined in this sense. Moreover, the claim is challenged by various underdetermination arguments. I present a way some of those arguments can be resisted, which in turn leads to a novel defense of the thesis.

Keith Stenning (Edinburgh): The origin of specialties

Thursday, 12th of July, MS150, 5.15 - 6.30 pm

Classic studies in the sociology of knowledge focus on 16C to 18C events in the natural sciences played out in small communities which included all relevant players. They reveal how community dynamics played significant roles in determining the course of scientific reasoning (Kuhn 1962, *The Structure of Scientific Revolutions*). But modern research is carried out across communities insulated from each other by specialisation. Truths in one community are falsehoods in another. The dynamics of inter-community interactions and non-interactions have received much less attention. Existence proofs are a necessary beginning. This talk will illustrate with two examples of interdisciplinary non-communication. The first is between psychology and logic/philosophy of science in the field of the psychology of reasoning. The second is between psychology and genetics in the study of the inheritance of behaviour.





Symposium on Moral Emotions

Symposium: Moral Emotions

Kevin Mulligan, Peter Goldie, Paul Harris, Klaus Scherer
Monday, 9th of July, MS150, 10.45 am - 1 pm

Emotions are sometimes said to be moral as opposed to non-moral in virtue of their objects (moral disgust triggered by a lie vs disgust triggered by a smell) or in virtue of their functions. They are also said to be moral, for example morally good, as opposed to immoral, for example morally bad or evil, in virtue of their objects, nature, functions or effects. And the same is true of desires. Unfortunately the definition and content of moral and ethical matters are even more contested and contestable than the nature of affective phenomena and desires. There are, it seems, moral norms (one ought to keep one's promises, one ought not to tell lies), moral values (goodness, evil) and moral virtues (courage). But different accounts of morality understand norms, values and virtues and their interrelations in very different ways. Thus the range of putative moral emotions displays a bewildering variety. Unsurprisingly, recent empirical investigations of moral emotions, of their development, function and evolution, often presuppose different accounts of morality. Thus if shame is thought to be a social affair and autonomy a central moral value, then shame may well be thought to be morally less important than guilt. But if morality is essentially a matter of shared norms and shame is social, then shame's status as a moral emotion changes. The three contributions to this symposium look at some central aspects of moral emotions, values and norms: the emergence of conflicts between desire and duty, a component of nearly all of the more popular accounts of morality (Paul Harris); the relations between the way shame and guilt feel and their conceptualisation (Klaus Scherer); and the relation between emotions and thick moral (dis)values such as honour, shamefulness and corruption (Paul Goldie).

Peter Goldie: Emotions and thick concepts

I will discuss the relation between emotions and what are known as 'thick' concepts, including ethical concepts such as courageous and cruel, as well as other non-ethical concepts such as dangerous. Such thick concepts are contrasted with 'thin' concepts such as good and right. I will argue that emotions and thick concepts are made for each other: in emotional experience we can intuitively and immediately grasp things as being dangerous, people's actions as being brave or cruel, and so on. I will then relate this discussion of emotions and thick concepts to recent discussions in psychology of dual-process thinking.

Paul Harris: Children's grasp of the conflict between desire and duty

Do children think of duties as a separate domain from psychological states? In particular, do they recognize that conflicts frequently arise between duties and desires? Much evidence suggests that preschool children are slow to acknowledge such conflicts. In particular, they rarely acknowledge that wrongdoers might feel conflicted or guilty over what they have done. Research with older children, by contrast, notably children who have opted to become vegetarian (despite being raised in meat-eating families) points to a clear grasp of the difference between duty and desire and a firm commitment to not eating what they want.

Klaus Scherer: Shame and Guilt - Words and Things

Profiting from the dialogue with philosophers, the author presents a refinement of his Component Process Model of emotion with respect to the differentiation of shame and guilt. In particular, the relationship between felt qualia and the words used to communicate these feelings will be discussed.





Symposium Mutual Exclusivity

Symposium: Mutual Exclusivity

Josef Perner, Ellen Markman, Lori Markson, Martin Doherty
Tuesday, 10th of July, MS150, 10.45 am - 1 pm

We explore the developmental phenomenon that children, even up to 8 years, treat labels as mutually exclusive, e.g., although they are willing to label something “a rabbit” or label it “an animal,” they appear to deny that it can be both a “rabbit” and an “animal.” This phenomenon has been extensively investigated in younger children in the context of word learning, where it is deemed a useful heuristic (Markman) because it leads children to map new labels preferentially onto unknown objects. The pragmatics approach (Markson) explains this tendency by children’s pragmatic assumptions that if a speaker uses a different label s/he must be referring to something different than the thing that already has a conventional label. Impressed by older children’s seeming denial that something can have more than one “identity” and the suggestion that labels create a difference in perspective, children’s reluctance is seen as a reflection of deeper problems understanding identity and contrasting perspectives (Doherty). The focus of the symposium is on the question of how these different theoretical approaches and the empirical phenomena relate to each other. The discussion will be aimed, in particular, at how the word learning findings relate to the older children’s rejection of alternative labels, to recent findings on sorting objects and to Piaget’s venerable “Class Inclusion” task.

Tentative Schedule:

- 10.45 - 11.00 Introduction and Overview (Josef Perner)
- 11.00 - 11.30 Ellen Markman
- 11.30 - 12.00 Lori Markson
- 12.00 - 12.30 Martin Doherty
- 12.30 - 13.00 General Discussion

Ellen Markman (Stanford): Is Mutual Exclusivity Necessary?

Mutual exclusivity has been postulated, along with the whole-object and taxonomic assumptions, as a learning heuristic that helps very young children solve the Quinian inductive problem in word learning. Mutual exclusivity leads children to prefer only one category label for each object. From the child’s point of view, calling something, e.g., both “a dog” and “a poodle” may feel as if we are attributing multiple identities to a single object. I argue that mutual exclusivity is a lexical assumption that should be viewed as one of an analogous set of related simplifying heuristics that can be found in other domains and even other species such as blocking in classical conditioning, discounting in social psychology, and illusory correlations. Recent discoveries about young children’s competence in pragmatic and theory-of-mind reasoning raise the question of whether lexical constraints per se are needed and even whether they exist, or whether instead a set of pragmatic assumptions can account for all of the phenomena attributed to mutual exclusivity and other word-learning assumptions. I will review some of the existing findings that suggest mutual exclusivity is in fact necessary including: very young children’s difficulty in learning second labels in the face of clear pragmatic cues, autistic children’s use of mutual exclusivity while not attending to pragmatic cues, and infants’ tendency to search the room for an appropriate referent for a novel label when only an object that would violate mutual exclusivity is visible.

I will also present new findings showing that mutual exclusivity is needed for children to learn part-terms even when natural, felicitous pragmatic gestures are used to indicate the parts. I conclude that while pragmatic reasoning is crucial for word learning, it does not obviate the need for lexical assumptions as well. The redundancy between pragmatic knowledge and word-learning heuristics provides children with converging evidence as well as back-up mechanisms to help them map words onto appropriate referents.





Symposium Mutual Exclusivity

Lori Markson (Berkeley): Is pragmatic reasoning sufficient?

Is mutual exclusivity a purely lexical constraint or can it be reduced to pragmatic principles? Children's tendency to choose an unfamiliar object over a familiar one when asked to find the referent of a novel name has been taken as evidence for the operation of lexical constraints in children's inferences about word meanings. I argue that this response bias might result instead from pragmatic considerations. In support of this view, I will present earlier findings showing that children's avoidance of lexical overlap extends beyond the lexical domain, that children assume that labels are common knowledge among members of a linguistic community, and that shared knowledge between a speaker and listener influences how children interpret a speaker's request. I will then discuss conflicting findings from two recent studies that directly pit mutual exclusivity against pragmatic behavioral cues, and two studies with different explanations for young children's search behavior when asked to find the referent of a novel label. Lastly, I will present new findings on children's expectations and assumptions about the conventionality of words. Together these results highlight how pragmatic knowledge - in the absence of lexical constraints - might account for how children learn the meanings of words.

Martin Doherty (Stirling): Putting the ME bias into perspective (or vice versa)

There are two explanations for why children avoid learning overlapping words:

1. Children assume that words do not overlap – the Mutual Exclusivity bias.
2. Speaker's cues are sufficient to direct children to the correct referent of a novel word, and speakers tend to refer to objects by conventional labels.

In this talk we consider findings that children have difficulty producing or judging alternative names until around the age of four years (e.g., Doherty & Perner, 1998). This difficulty is for words already learned, suggesting that the mutual exclusivity bias may not be specifically to do with word-learning. Instead it may be because considering two labels for the same thing, novel or otherwise, requires an understanding of perspective. Empirically this is suggested because alternative naming is related to understanding of false belief. This explanation may be (at least partially) consistent with the ME bias and pragmatic accounts: we evaluate Markman's (1989) suggestion that the bias may be domain general, and also the possibility of modifying the pragmatic account to allow for children's developing understanding of perspective.



Children's conception of desire

Symposium: Children's conception of desire

Johannes Roessler, Josef Perner, Fred Schueler
Wednesday, 11th of July, MS150, 10.45 am - 1 pm

Josef Perner (Salzburg): Goals as Objective Desires

Evidence suggests that by their first birthday (+/- 3 months) infants attribute to people but also appropriately animated geometric shapes a rational pursuit of goals (e.g., Gergely & Csibra, 2003). They see these entities as acting in such a way as to achieve a presumed goal in a rational way given the existing circumstances (circumstance-goal reasoning). There is a fair amount of evidence that not before about 4 years do children have a clear understanding that rational action is not relative to existing circumstances but to the actor's belief about (mental representation of) the circumstances. My question is at what age pursuit of goals is understood in terms of a desire to attain the goal. The problem with my question is that we do not have a clear answer to it. Hence I will contend myself with asking of what kind of evidence would help us answer it by getting clearer on the difference between goals and desires in relation to circumstances and beliefs. Further development: Desires, one could say, are to goals what beliefs are to circumstances, namely mental representations thereof. That is, if we consider beliefs to be representations of circumstances that are subjectively (by the believer) taken as truthfully representing existing circumstances, we consider desires to be mental representations of potential circumstances that are subjectively considered to be desirable to have (i.e., worth while in order to act in such a way that present circumstances be transformed into the desired circumstances). This analysis brings out a certain asymmetry. While actual circumstances are clearly identifiable independently of someone's beliefs. They are real independent of someone believing them real. In contrast, goals are not independently identifiable of desires. Goals are potential circumstances that are desirable for someone. Desirability is inherently subjective: *de gustibus non disputandum*.

Gergely, G., & Csibra, G. (2003). Teleological reasoning in infancy: The naive theory of rational action. *Trends in Cognitive Sciences*, 7, 287-292.

Johannes Roessler (Warwick): Children's understanding of action and desire: reasons, causes and subjectivity

According to Josef Perner, young children initially make sense of rational actions in teleological terms: by appeal to goals, and rational means to achieve goals, rather than by appeal to the agent's desires and other mental states. And he suggests that understanding the causal relevance of desires requires understanding the sense in which desires reflect a subjective perspective (such that two people may have desires for incompatible states of affairs). I will consider how best to formulate the teleological interpretation, and defend the claim that it provides a genuine alternative to the standard account of young children's conception of action (in terms of a primitive theory of mind). I go on to argue that a defence of Perner's suggestion about causal relevance and subjectivity turns on the issue discussed by Fred Schueler, of how to conceive of the relation between desires and reasons for action.

Fred Schueler (Delaware): The Humean Theory of Motivation Rejected

The Humean Theory of Motivation holds that no belief could motivate us unless it is combined with some independent desire. At the same time, as Michel Smith has claimed, in order for a desire and belief to constitute a motivating reason the agent must, as it were, put the relevant desire and belief together. I argue that this putting-together point is correct but lethal for the Humean Theory. It means that the explanatory force of desire-belief explanations of actions depends in part on our reasoning about our desires and how to satisfy them, that is on our beliefs about what desires we have. So it seems possible we could have these beliefs even if we did not have the corresponding desires at all. Worse, this feature of the Theory rules out claiming that desires operate in the background, outside deliberation, a claim needed to make the Theory plausible.





Symposium on Attention

Symposium: Attention in Neuro- psychology and Philosophy

Martin Davies, Anne Aimola Davies, Philippe Chuard, Robert Rafal,
Patrik Vuillemier. Thursday, 12 of July, MS150, 10.45 am - 1 pm

William James famously said: “Everyone knows what attention is. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others.” When attention is focused, the mind is directed upon some objects while others are neglected. Thus, psychological processes of selective attention underpin our thought about, and reference to, objects in our world. James noted that attention scarcely figures in the work of the British empiricist philosophers and it remains the case that attention, by comparison with perception, memory, or thinking, has not been much discussed by philosophers of mind, although it is studied intensively in psychology, neuropsychology, and cognitive neuroscience. John Campbell’s book, *Reference and Consciousness* (2002), is a pioneering contribution to the philosophy of attention and an inspiration for further philosophical research drawing on the rich body of empirical findings about attention.

Philippe Chuard (Department of Philosophy, Southern Methodist University, Dallas): Perceptual Attention, Demonstrative Concepts, and the Coherence of Conceptualism

Can we consciously perceive objects and properties without selectively attending to them? I will briefly review some of the evidence – mostly empirical, but some phenomenological evidence too – suggesting that we can. If there can be conscious perceptual experience without selective perceptual attention, this raises an important problem for the conceptualist conception of experience, according to which what an experience represents – and how it represents it – is fully determined by the conceptual capacities the subject exercises in having the experience. In particular, the possibility of perception without attention undermines the Conceptualists’ appeal to demonstrative concepts which, Conceptualists argue, we deploy for the fine-grained perceptual representation of specific properties, and the use of which seems to require selective attention. If time allows, I will also present some evidence suggesting that unattended stimuli can nevertheless be represented in a fine-grained way in experience.

Robert Rafal (School of Psychology, University of Wales, Bangor): Consciousness is gated by attending to action

We are aware of only a limited amount of the sensory information to which we are exposed; and the traditional view has it that our conscious experience is constrained by limited neural resources for perceptual processing. However, priming studies in both healthy individuals [1] and neurological patients [2, 3] have revealed that unattended information outside of our ken does access semantic representations and, indeed, also activates motor responses relevant to the task at hand [4]. An alternative view is that the resource limitations constraining awareness are not neural but, rather, the finite physical limitations of the motor system which require sequential behaviour (including cognitive processes mediated by sequential verbal behaviour, i.e. thinking and memory encoding [5].) I shall sum





Symposium on Attention

marise observations in neurological patients with attentional impairment (hemispatial neglect) that suggest that consciousness is gated by attending to action. These patients may be aware of stimuli presented, in isolation, to the visual field opposite to the brain lesion (contralesional), but are unaware of the same stimulus if there is a competing stimulus in the 'good' (ipsilesional) field. The ipsilesional stimulus captures attention and the contralesional stimulus is 'extinguished' from awareness. Our experiments derive from a simple bedside observation: when a patient is presented with stimuli in both visual fields that need to be identified and reported, there is more extinction if the two items are the same [6]. Critically, this effect is dependent upon the two items being the same in the dimension that the patient is required to report [7]. Thus, for example, there will be more extinction between x and X if the identity of each letter is to be reported than if the case of each letter is to be reported; and conversely, more extinction between y and x if the case, rather than the names of the letters, is to be reported. Subsequent experiments have shown that what is critical is not whether the competing items share the same visual features, or even the same meaning but, rather, whether they are both competing for the same response [8]. Thus, not only was there more extinction when patients were asked to read the words ONE and ONE, than for the words ONE and TWO; but there was just as much extinction when the items to be read were ONE and I, or indeed ONE and WON, as for the identical items ONE and ONE. In the case where a patient was required to report whether each item (of pairs like ONE and ONE or ONE and I) was a word or a digit (a task in which semantics must be accessed to select the correct response), both the same semantics and the same response made independent contributions to determining the degree of extinction [9].

We concluded that:

- Attention is needed to gate access to awareness, not because of limitations of perceptual processing 'resources', but because consciousness needs to be limited to permit coherent goal directed action.
- Perceptual processes have evolved to optimise encoding and representation of visual information outside the focus of attention.
- Attention acts flexibly on these representations to gate access to consciousness at the level(s) of representation needed to select action.

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Symposium on Attention

Patrik Vuilleumier (Departments of Neurosciences and Clinical Neurology, University of Geneva): Conscious and unconscious levels of processing in spatial neglect patients: A critical role of “whereness” for awareness?

Patients with spatial neglect show striking deficits in awareness for events and stimuli located in the hemispace opposite to their brain lesion, but such deficits are not due to losses in elementary sensory functions. In fact, there is abundant evidence that residual (implicit or unconscious) processing can still arise for neglected information in several brain areas spared by the brain lesion. I will describe behavioural and functional neuroimaging data indicating that such residual activation may concern object features such as shape, colour, semantics, or affective values, but not spatial information. These data suggest that activation of brain areas coding for non-spatial properties may not be sufficient to afford conscious awareness of these properties and corresponding objects. In addition, I will illustrate that a key component of neglect may involve a failure to maintain stable representation across time and movement for spatial locations in the neglected side. Taken together, these findings suggest that damage to critical brain regions associated with space representations can preclude the access to awareness for feature information processed in intact brain pathways. Thus, by lacking specific location tags, sensory events may remain out of space and thus also out of mind for neglect patients.

Anne Aimola Davies (School of Psychology, The Australian National University and Department of Experimental Psychology and Faculty of Philosophy, University of Oxford): The role of expectations in inattentive blindness and unilateral neglect

Individuals set their attention to be especially sensitive to select properties of the visual world (such as colour or shape), and it is this attentional readiness that underlies task efficiency. As the phenomenon of inattentive blindness demonstrates, once this specific attentional set is adopted, an unexpected item is more likely to go undetected, particularly if it does not share these select properties. Inattentive blindness (IB) is thus the failure to detect unexpected items in the visual world when attention is otherwise engaged in a primary task with high perceptual demands. Even taking into consideration that tasks can be fully absorbing of attention, it remains surprising to discover that twenty-eight percent of participants show IB for an item that is so unique that it should pop out from background information (e.g., a red cross traversing the computer screen as one tracks either black or white circles and squares). Our research is focused on the role of viewers' expectations in IB. Some have discounted such a role, and one obvious objection is that, if expectation and detection were tightly linked then individuals would never see things for which they were unprepared. Others have systematically varied primary-task attentional demands, while holding expectations constant, and have concluded that the perceptual load explanation can fully account for varying levels of IB. We suggest that IB occurs, not just because a particular item is unexpected, but rather because the viewer's attention to expected items is so focused that processing strategies are biased and items that fail to conform to the viewer's attentional set go undetected.

In a series of cueing experiments, we manipulated both the perceptual demands of a primary letter-naming task and the expectations of the viewer. At moderate-to-high levels of perceptual load, individuals whose numerical expectations were fulfilled terminated processing when the primary task was complete, at the expense of an unexpected visual event. These experiments are the first to demonstrate that individuals set their attention for the number of items to be detected, and are vulnerable to IB whenever their primary-task numerical expectation is fulfilled. Having demonstrated a role for expectations in IB, we present findings relevant to the proposal that expectations are likewise important for patients with unilateral neglect, who, following a right-hemisphere stroke, suffer from a kind of IB for left-side information.



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Parallel Sessions: Monday

Parallel Sessions on Monday 9th of July

A1. Meaning

Josep Macia (josep@sct.ictnet.es): **On the relationship between semantic theories and meaning**

Philosophers and linguists working on the so called Montaguean tradition provide semantic theories of natural languages using some techniques of model theory introduced by logicians. A semantic theory of a (fragment of) a language is a theory of the meaning of the expressions of (that fragment of) the language, and so a semantic theory describes what a competent speaker must (implicitly) know in order to know the meaning of his or her language. A psychological theory of semantic competence should explain how speakers are able to (implicitly) know the kind of theories described by semanticists. In this paper I will try to contribute to the clarification of the status of semantic theories by casting some doubts on some widely shared assumptions. I'll do so by focusing on the following specific question: (A) What do sentences of a formal language mean? I will argue that a sentence of a formal language interpreted in the standard way (using model theory, and so, using the same sort of mechanisms also employed by many semanticists) does not mean anything. This might seem to be a surprising result, but we will be able to justify it appealing to considerations that, for the most part, are already familiar. Our answer to (A) will lead us to also consider question (B): (B) if a sentence of a formal language interpreted in the standard model theoretic way has no meaning - what are we doing when we offer a so called "interpretation" for a formal language?

Bibiane Rendl & Josef Perner (bibiane.rendl@sbg.ac.at, josef.perner@sbg.ac.at): **Children's understanding of identity statements**

We investigated children's ability to understand identity statements, for example, that Susie's mother is the same person as the nurse. One hundred and four children between 2 years and 8 months (2;08) and 4;06 years were tested with two identity stories and two inference control stories. In the identity story children were shown two lady figures (a nurse and another woman). After the figures were removed they got information about a person under one description (e.g. "The bracelet belongs to Susie's mother") and that Susie's mother is the nurse. The two lady figures were shown again and children should give the bracelet back. Only children who understand identity statements, namely that the nurse is Susie's mother, will give the bracelet consistently correctly to the nurse. To make sure that difficulties with the identity stories were not simply due to general problems with drawing inferences of this complexity we included inference control stories of a similar structure. Children were, for instance, presented with two lady figures and after the figures were removed the children were informed about a lost object that belongs to the cat. In contrast to the identity story children were not presented with an identity statement but they were informed about a contingent relation (e.g. "The cat belongs to the nurse"). When the two lady figures reappeared children were asked to give the lost object back. The results revealed that younger children did significantly better on the inference control story than on the identity story (Wilcoxon, $Z(N = 46) = -2.34, p < .05$), whereas older children showed no significant difference on the two tasks, Wilcoxon, $Z(N = 39) = -.96, p > .05$. These results were due to a significant improvement of the performance on the identity story with age (Mann-Whitney $U(n_1 = 46, n_2 = 39) = -2.20, p < .05$). This effect was not significant in the older children, Mann-Whitney $U(n_1 = 46, n_2 = 39) = -1.58, p > .05$. For the analysis of the results we make use of a modified concept of discourse referents and show that understanding identity requires meta-representational abilities.





Parallel Sessions: Monday

Nausicaa Pouscoulous (nausicaa_pouscoulous@eva.mpg.de): **Are scalar inferences implicit or explicit?**

Some parts of meaning are clearly explicit while others are conveyed implicitly. When a speaker utters a sentence such as “Daniel kicked the glass over and it fell on the floor”, the hearer may infer that Daniel broke the vase, yet this wasn’t explicitly stated; most linguists and laymen will agree that it is an implicature. Unfortunately, for some phenomena at the interface between pragmatics and semantics, it is difficult to decide whether they are part of what is explicitly said or implicitly communicated. Scalar inferences - whereby some is interpreted as not all, for instance - are a case in point. I present two experiments using a paradigm first established by Gibbs and Moise (1997) and based on Récanati’s ‘Availability Principle’ (2004), according to which we have pre-theoretical intuitions of which parts of meaning are explicit and which are implicit. Participants in Experiment 1 were presented with a set of sentences - some with a scalar inference, others with different pragmatic inferences. They were asked for each of them to choose between two possible paraphrases the one that better expressed what was explicitly said; one conveyed the literal meaning of the utterance and the other the inference. It was found that scalar inferences, unlike clear cases of implicatures, are overwhelmingly understood by subjects as part of the explicit meaning of the utterance. Experiment 2 was a follow up study using clearer instructions and yielded similar results. I discuss the consequences of such findings for current theoretical debates both on scalar inferences and on the explicit/implicit distinction more generally.

Sally Parker Ryan (sally.pr@sbcglobal.net): **Semantics, Pragmatics and Norms of Meaning**

Semantic Minimalists are of the view that sentences bear (a minimum of) semantic content independently of their uses in speech acts. Contextualists, on the other hand, argue that semantic content is determined (to a more or less radical degree) by the semantic features of language use - for example by the contexts in which sentences are uttered. In this paper, I defend a radical Contextualism, which I shall call, to reflect its historical tethers, a ‘use-based’ theory of meaning. The view maintains that sentences do not bear semantic content, however minimal, independently of their uses in speech acts - content and speech acts are inextricably linked. The Minimalist, on the other hand, sharply distinguishes meaning and use. But I argue that once the connection between meaning and use had been severed, the Minimalist no longer has the resources to account for the normative constraint the former ought to have over the latter. The Minimalist generally responds to this charge that such an account, i.e. of normative constraints over use, is not required of her theory since ex hypothesi the semantics and pragmatics of language are distinct, and she is accounting only for the semantics. I show why this is mistaken.





Parallel Sessions: Monday

A5. Action, causation

Vivienne Brown (V.W.Brown@open.ac.uk): **Reconceptualising 'action' and 'agency': a new approach to libertarianism?**

In philosophical debates 'action' is characterised by its being in a relation of exteriority to its 'cause', whether that cause is construed in terms of mental events (as in non-reductionist physicalism), brain events (as in physicalism), the agent (as in agent-causation varieties of libertarianism), or in the agent's conscious 'will' (as in some other versions of libertarianism). The philosophical problems of this approach include: how to theorise this posited relation of causal exteriority in terms of the metaphysics of agency / mental causation; how to reconcile it with various philosophical (also ethical) presuppositions about the 'autonomy' and responsibility of action and agency; and how to reconcile it with the evidence of neuroscience which eg challenges the notion of a prior conscious will that guides or controls actions.

My response to this is to propose a reconceptualisation of action which interiorises 'causality', thus making action 'acausal' with respect to the specifically extrinsic notion of cause that dominates philosophical debates about causation. This then provides a clear causal distinction between actions and happenings since in the case of the latter causality is extrinsic to the caused event. My proposed reconceptualisation is achieved by revisiting and refining Peirce's distinction between word-token and word-type, a distinction which philosophers of action have adopted in their talk of action-tokens and action-types, but which, I argue, remains underdeveloped. I propose a definition of word-token in terms of word-type that can then be applied to the case of action; and the benefit of this, I argue, is that it provides a definition of action-token according to which the relevant notion of 'causality' is intrinsic to the concept of action.

Advantages of this conceptual model of action include some new solutions to a number of difficulties in action theory (such as individuation, recurrence, adverbial modification); but for the purposes of this paper the broader point is that this 'acausal' (and therefore non-aetiological) concept of action does not require any extrinsic 'cause' of action. That is, seeking the cause of action as something extrinsic to it is in the nature of a category mistake.

Further, and more speculatively, might this model of action be consistent with neuroscientific research that shows how neurobiological processes are the correlates of an agent's action? That is to say, if an agent's action is construed in neurobiological terms as a string of neural firings, then such a string of neural firings just is the physical process by which an agent acts. But to say that when we act, we do so by means of various neurobiological processes is not the same as saying that our actions are caused by those neurobiological processes. The 'acausal' model of action being proposed thus restores agency at the heart of action but, hopefully, in a way that is not inconsistent with developments in neuroscience.

Patrick Burns & Teresa McCormack (pburns18@qub.ac.uk, t.mccormack@qub.ac.uk): **Inferring causal structure: the role of timing**

Recent research has indicated that adults preferentially use temporal information when making inferences about causal connections (Lagnado & Sloman, 2006). We examined whether children's causal judgements were sensitive to the relative timing of events. We also looked at whether children's causal judgements supported predictions about what would happen under certain hypothetical interventions on the events. In Experiment 1, participants observed three discrete events that occurred on the surface of a toy-like box. All participants saw an initial event A that was followed by two events B and C. In the Synchronous condition, B and C



Parallel Sessions: Monday

occurred simultaneously whereas in the Sequential condition, B occurred before C. Seven-year-olds and adults (but not four-year-olds) thought that B was more likely to cause C in the Sequential condition than in the Synchronous condition. However, only adults answered questions about hypothetical interventions on B and C consistent with this reasoning. Experiment 2 showed that even when seven-year-olds had to make intervention judgements before causal ones, their causal judgements were not commensurate with their judgements about causal interventions. These findings are consistent with those of Lagnado and Sloman (2006) but contrary to what the Interventionist theory of causation might predict.

Nancy Brenner-Golomb (n.brenner@hetnet.nl): **Does voluntary attention imply free will?**

In this paper I wish to show how different conclusions can be drawn from the same evidence. I do so by comparing the conclusions which William James drew from his survey of the experimental work of the leading psychologists of his time, with Spinoza's conclusions derived from his criticism of Descartes. Both argued that an explanation of human behaviour must include moral judgements. Both suggest that any interpretation of the evidence in an explanation is guided by a presupposed view of nature which serves as a standard of truth. Descartes held that the realm of science was exclusively the material world, because only this realm could be mechanistically explained. Moral behaviour had to be explained by a spiritual force of free will. Spinoza claimed that the realm of reason also could be mechanistically explained. It was free only in the sense that it was not determined by external forces. In this sense, moral judgements were free because they were part of the natural power of reason. Moral judgements were part of the natural power of reason. My suggestion is that, although James was acquainted with Spinoza, he argued against the mechanistic approach which replaced the Cartesian dualism after the impact of Darwin's theory of evolution. This approach introduced a new dualism of culture versus nature which included biology in nature but delegated morality to the realm of culture. According to James, it was the rejection of Descartes' original view which led to cultural determinism, and thus to the rejection of free will. It is this view which he wished to restore by equating voluntary attention to free will.

Leonardo De Mello Ribeiro (pip04ldr@sheffield.ac.uk): **Hedonic Desires and Reasons for Action**

I discuss Parfit's general claims about the relation between desires and reasons for action. My aim here is not to put into question Parfit's arguments against purely desire-based accounts of reasons. Rather, I am assuming both that his arguments against these accounts are sound and that the value-based framework on which Parfit builds his account of reasons is unproblematic. However, I am going to raise doubts concerning some of the details of Parfit's strategy against any view that takes some cases of desires as reason-giving. In order to do this, I shall focus on a special kind of desire, viz., hedonic. I will argue (contra Parfit) that whenever it comes to hedonic desires, such desires can be taken to provide reasons for action, even though this claim does not undermine and is not in conflict with a value-based account of reasons.





Parallel Sessions: Monday

A9. Agency, self

Francesca De Vecchi (francesca.devecchi@lettres.unige.ch): **The Agency of the Spontaneous Acts**

This paper gives a contribution to the problem of distinguishing between ownership and authorship of the mental states and acts. This problem is of particular relevance in the pathological sphere, as some literature about “thought insertion” by schizophrenic subjects shows (Frith 1992, Stephens & Graham 1994).

I maintain that it is fundamental to differentiate the ownership from the authorship also from a more philosophical perspective. If the ownership is sufficient to determine the “self-reference” (Gallagher 2000) or the subject’s “first person perspective” level (Baker 2000), it is only the authorship that allows us to speak of an individual identity in a strong sense, that is, to define what is really mine and what constitutes the who I am.

I adopt the agency of the subject as a fruitful criterion for distinguishing between authorship and ownership. The meaning of agency that I use refers to the initiating source of the act, i.e. it involves a sense of being the wilful initiator of an act, and it is linked to a very specific class of mental acts. In agreement with Reinach (Reinach 1911, 1913), I call these acts “spontaneous acts” and I define them as the acts in which their subject reveals himself as their author - and not simply as their owner -, and as an active and producing subject. I argue that spontaneous acts are our “individuation’s makers” and that the agency of the spontaneous acts is a relevant criterion for personal identity.

Hannes Rakoczy (rakoczy@eva.mpg.de): **“That’s just the way it’s done!” - Young children’s understanding of the normative structure of conventional action forms**

Infants imitatively learn new individual actions from observing others. However, many forms of action children encounter are not just individual instrumental acts, but forms of rule-governed, normatively structured activities. Often in such activities objects are treated in conventional ways and thereby acquire status functions. For example, the constitutive rules of games confer status functions on the objects involved (this piece of wood counts as a queen in chess”), and create a normative framework of right and wrong moves. Such activities lie at the heart of institutional reality (Searle, 1995). Little is known to date about young children’s grasp of such normativity. We therefore a new methodology for tapping at 2- and 3-year-olds’ awareness of the normative structure of rule-governed forms of action, particularly games, investigating whether children would not only learn to play novel games correctly, but whether they would spontaneously protest and criticize in response to others’ mistakes in the game. In two studies, children learned simple rule games from an experimenter and jointly played the game with her. Then a puppet joined them and performed a certain act. In the experimental condition, the act was a mistake. In the control condition, the exact same behaviour was performed, but the context was varied such that it was no longer a mistake. In both studies, children showed significantly more intervention (e.g., “No, that’s not correct”) in the experimental trials than in the control condition. In two further studies, analogous findings were obtained in the domain of joint pretence games.





Parallel Sessions: Monday

Harriet Over & Merideth Gattis (OverH@cardiff.ac.uk, GattisM@cardiff.ac.uk): **Having and Understanding Intentions**

In this paper, we seek to combine the philosophical literature on intentionality with the psychological literature on infants' developing capacity to have and understand intentions. Through combining these two research areas, we hope to expose the gaps in our knowledge of intentionality in infancy, and to generate new questions for research. As part of this endeavour, we suggest a theoretical framework through which the human capacity to have and understand intentions can be understood. We argue that intentions are best understood in terms of a hierarchy ranging from basic intentions-in-action to complex collaborative intentions. Intentions at the peak of this hierarchy are both causally antecedent and cognitively more complex than those at the base. In analysing evidence for this framework, we treat the capacity to have and understand intentions as two separate abilities. First we argue that the acquisition of intentions at the base of the hierarchy is developmentally and evolutionarily prior to the acquisition of intentions at the peak. Secondly, we argue that intentions at the base of the hierarchy are easier to understand than intentions at the peak. Understanding of these simple intentions should, therefore, appear earlier in both development and evolution. However, as we shall demonstrate, methodological discrepancies make these predictions difficult to assess. In the final section of this paper, we begin to investigate how our framework can help uncover the developmental mechanisms underlying intentionality.

Louise Röska-Hardy (roeska-hardy@roeska.de): **Autobiographical Memory, Narrative and the Self**

Fictionalist construals of the self claim that the self is merely an abstract, fictional object, created to organize self-interpretation and provide an alternative to immaterialist and materialist substance theories of the self. However, rejecting the notion of the self as a substance or an entity of some sort does not force us to conclude that the continuing self is an illusion or a theoretical construct. This talk sketches an alternative account of the "continuing self" which eschews both fictionalist construals and substance theories. Taking work in cognitive neuroscience and developmental psychology as a starting point, the account considers its implications for the philosophical understanding of one's self. The key claim is that the sense of a self continuous in time is created by the narrative structuring of autobiographical memory, which emerges from and is constrained by the interplay of neural, cognitive and especially linguistic capacities. I argue for the claim by (1) discussing the features of autobiographical memory as a memory system that develops over time, (2) reviewing claims concerning its development in ontogeny and (3) examining the role of language acquisition and use in interpersonal contexts. It is argued that the 'continuing self' is anchored in the neural processes and cognitive capacities involved in encoding and re-encoding memories and that these receive linguistic, i.e. symbolic, expression and description in the process of language acquisition.





Parallel Sessions: Monday

A13. Concepts

Elena Zinchenko & Jesse Snedeker (zincheel@gse.harvard.edu): **The Role of Sensory-Motor Information in Concepts**

The content of conceptual representations is one of the key issues in philosophy of mind and theories of concepts (see Laurence & Margolis, 1999). Over the last 50 years many theorists and experimentalists have argued that conceptual content is abstract and cannot be reduced to sensory-motor primitives. But recently there has been a resurgence of interest in the alternate view (eg., Gallese & Lakoff, 2005; Rizzolatti & Gallese, 1998), fueled in part by behavioral and imaging studies suggesting that motor areas in the cortex are involved in abstract language tasks (eg., Buccino et al., 2005; Oliveri et al., 2005; Hauk & Pulvermüller, 2004). While these data suggest that motor information plays a role in conceptual processing, the nature of this involvement is unclear. Are these terms defined in terms of motor primitives? Or does motor information merely influence conceptual processing or accompany it? Are early concepts largely concrete, with abstract contents emerging later in development? We explore these questions by examining the role of motor information in children's categorization. While no studies have been done on the role of motor information, previous research has shown that younger children (three-year-olds) are more likely to rely on perceptual information (such as the object's shape) rather than abstract information (such as the object's function) when categorizing novel objects (Keil, 1997; Smith, Jones & Landau, 1996). However, recent studies demonstrate that three-year-old children can use perceptual features as a clue to the object's intended function (Diesendruck, Markson & Bloom, 2003; Kemler-Nelson, 2000; 2004). Thus children's reliance on perceptual features may be consistent with a system in which content of concepts is largely abstract. Our current work compares the use of motor information and function in the acquisition of novel tool categories in children. Five-year olds were asked to extend a novel word to new exemplars of tools which either required the same motor movement or had the same function as the standard. Children overwhelmingly used the tool's function as the basis for their categorization decisions (75% function choices). Thus by five years of age, abstract information overrules motor information in the formation of novel tool categories.

Malte Dahlgrün (dahlgrun@web.de): **Recognitional concepts**

The notion of a recognitional concept, with which Fodor and other philosophers have identified the notion of a perceptual concept, is argued to constitute a strawman hybrid. It runs percept-concept relations together with a direct concept-world relation, when in fact it is only the percept-concept relations that are immediately content-constitutive of perceptual concepts. Moreover, even if Fodor's notion of a recognitional concept were granted to be a relevant one, his two central, critically intended attributions of commitments to the notion do not bear up under examination. On the one hand, his claim that concept-constitutive recognitional capacities would have to be limited to good instances lacks sound justification, and the limitation itself is difficult to make sense of. On the other hand, his claim that concept-constitutive recognitional capacities would have to be limited to favourable conditions of recognition is indistinguishable from, and no more justified than, a corresponding claim about covariational theories of content which would be self-refuting, from Fodor's perspective. Furthermore, and most importantly for general purposes, the proper notion of a perceptual concept bears no intrinsic connection to either of these ideas.





Parallel Sessions: Monday

Jussi Jylkkä, Henry Railo & Jussi Haukioja (jusjyl@utu.fi): Psychological essentialism and externalism

The philosophical doctrine of semantic externalism is considered to be a serious threat to the traditional psychology of concepts. We adapt externalism into a psychological theory of natural kind concepts through building on the view known as psychological essentialism. We examine the only study presented thus far that aims to put externalism into an empirical test, namely Braisby's et al. (1996) study. Braisby et al. claim that their results undermine externalism, but we argue that the externalistic interpretation of psychological essentialism is consistent with them. We conducted an experiment, the results of which strongly suggest that lay speakers do use language in a clearly externalistic manner, at least in certain contexts. However, our results also point at a possible ambiguity in natural kind term meanings.

Peter Wyss (p.wyss@philosophy.bbk.ac.uk): Emergence And The Individuation Of Kinds

The current discussion of emergence is dominated by the debate about reduction and anti-reduction. Many, if not all, accounts of emergence use irreducibility as the core definiens. While the denial of reduction is indeed constitutive of emergentism, it does not exhaust it; and neither is it sufficient, because nonreductive physicalists and dualists also deny reduction. Emergentists have recently been challenged to provide a positive characterisation of emergence. After all, it might be said that emergentists claim certain items to be emergent, rather than merely not reducible. Therefore, emergentists should find a relation between two sets of entities (most likely, properties), one emergent, and the other nonemergent, which possibly makes intelligible why emergents are irreducible. Addressing this challenge, I explore the idea that individuation might be this relation: emergent properties are individuating of new kinds of things. For a particular entity of kind K , an emergent property P is K -distinctive in the sense of being individuating of, or supplying a principle of individuation for K -things; these things fall under K in virtue of having a specific emergent property. This idea, which is congruent with central insights of classical emergentists (especially Alexander), is an attempt to move forward with the clarification of emergence, and to make the best overall sense of emergence. I will follow a suggestion by O'Connor and Jacobs, and centre my exploration around persons, who might be regarded as instances of a kind (roughly) defined by the capacity for self-referential thought. Since my proposal aims at generality, however, I will also address broader issues, such as the questions of what is particularly emergentist about it, and how the appropriate balance can be found between too much specificity and too little distinctiveness (e.g., dog is too specific a kind, while entity is too little distinctive a kind).





Parallel Sessions: Monday

BI. Theory of mind, folk psychology

Mark Jary (m.jary@roehampton.ac.uk): **Assertion and false belief attribution**

This paper addresses the issue of the link between linguistic ability and the capacity to attribute false beliefs. It suggests that a view of representation proposed by Robert Brandom, building on work on assertion by Michael Dummett, can do a good job of explaining why linguistic competence is a prerequisite for false belief attribution. According to this view, representation of the type involved in belief attribution is to be explained in terms of the practical and inferential commitments associated with assertion: grasping these constitutes grasping the type of representation involved in false belief attribution. The consequences of applying this philosophical position to the practical task of explaining belief attribution are examined, and it is suggested that the predictions made are largely borne out by the data.

Laurence Kaufmann & Fabrice Clément (laurence.kaufmann@unil.ch, fabrice.clement@unil.ch): **Are theory of mind and deontic reasoning two independent subsystems of social cognition? Evidence from development**

In the last 20 years, psychologists have frequently considered social cognition as a subspecies of theory of mind. According to this prevailing mentalistic framework, the interpretation of social behaviors relies on the attribution of mental states. In contrast to this view, we hypothesize that there is a system of social inferences specifically dedicated to processing mind-independent information such as rules, status, hierarchy, and situations. The results of three series of experiments plead for the existence of such non-mentalistic understanding and prediction of others' behavior. Young children (3 and 5 years old) were told different versions of classic false belief tasks, some of which were modified by the introduction of a rule. When the task (a standard change of location task) included a rule (e.g. "in this house, one must always put jam in the fridge"), the results for 3-year-olds who fail traditional false-belief tasks were comparable to the results for 5-year-olds. These data suggest that rules play a central role in young children's social cognition and that deontic reasoning might not necessarily involve mind-reading.

Richard Griffin & Daniel Dennett (Richard.Griffin@tufts.edu): **What does the study of autism tell us about the craft of folk psychology?**

Much of the cognitive research on autism spectrum conditions (ASCs) has focused on the propositional attitudes. In this paper, we examine Baron-Cohen's (1995) developmental model of the "mindreading" system and evaluate it in light of new data with toddlers and preschoolers with autism. These data are also brought to bear on questions surrounding the earliest stages of intentional interpretation in typically developing children. We argue that the focus on the propositional attitudes, while useful, is limited in being able to adequately characterize the social difficulties found in ASCs.





Parallel Sessions: Monday

Henrike Moll & Michael Tomasello (moll@eva.mpg.de): Infants' Understanding of What Others See and Know

There is a puzzle in infants' acquisition of two different kinds of social-cognitive abilities. The puzzle is that infants seem to understand what others do and do not know from past perceptual experience before they understand what others can and cannot see in the moment. Studies using active response measures have shown that by around one year of age infants already understand which of three objects another person does not know from past perceptual experience (e.g., Moll et al., 2007; Tomasello & Haberl, 2003). However, it takes them about another year to come to understand which of two objects another person cannot see in a given situation (Moll & Tomasello, 2006). In my talk I will try to shed some light on the question of how this counterintuitive developmental order might be explained. Ongoing research will be presented in which we test the influence of some factors which might contribute to this phenomenon.

B4. Consciousness, attention

Elizabeth Irvine (emi6@pitt.edu): The Exclusion-Failure Paradigm and Signal Detection Theory - P without A consciousness?

Block's distinction between Access and Phenomenal consciousness, (see 1995, 2001, 2005), states that there is at least a conceptual distinction between the what-it-is-likeness of an experience (P consciousness), and its information processing counterpart (A consciousness). In order to find an actual example of P without A consciousness, P consciousness must somehow be operationalised, but it is not clear how or if a completely non-functional experience could be identified within an experimental set-up. Snodgrass and Block claim that Snodgrass's Signal Detection Theory approach to perception provides such a method of operationalisation, and an example of P without A consciousness in the exclusion-failure paradigm. (The exclusion-failure paradigm is an experimental attempt to show qualitative differences in conscious and unconscious perception. However, if subjects are highly motivated during the task they use perceptual information that was previously only available to unconscious processing; thus it has been suggested that this information was available and conscious all along, but only 'weakly' conscious). It will be argued on several grounds that the claim by Snodgrass and Block is flawed and is yet another example of cross-talk and confusion on the meaning of terms. First, the inference from the fact that motivation enables subjects to use previously ignored perceptual information to the claim that these previously ignored perceptions were P but not A conscious, is unjustified. Low level perceptions plus high task motivation generally leads to better task performance, which suggests that motivation can single out information to be both P and A conscious. However, the claim that prior to increased task motivation all low level perceptions are P conscious, but not necessarily A conscious, is unjustified. An equally good explanation is that motivation enables the use of previously completely unconscious perceptions, (i.e. not even P conscious perceptions), thus making them both A and P conscious. Second and more importantly, it will be argued that the characterisation of 'weakly conscious' percepts in Snodgrass's model





Parallel Sessions: Monday

implies that ‘weakly conscious’ percepts refer to low-grade percepts that exhibit qualities of both A and P consciousness, rather than being purely P conscious percepts. Signal detection theory (SDT) is essentially concerned with graded conscious experience; to interpret low-grade perception as P but not A conscious is to remove the functional properties of low grade perception and is antithetical to the core of SDT. In conclusion, Snodgrass’s SDT model as applied to exclusion-failure paradigms does not illustrate an example of P without A consciousness, and in fact supports instead the existence of graded levels of consciousness that are both A and P conscious ‘all the way down’.

Dorothea Debus (dorothea.debus@philosophy.oxford.ac.uk): **Memory, Imagination, And Narrative**

Sometimes we experientially remember things and sometimes we sensorily imagine things. The relevant cases of memory, here called “recollective memories” (or “R-memories”), and the relevant cases of imagination, here called “sensory imaginations” (or “S-imaginings”), characteristically correspond to our use of the distinct senses. Indeed, from the point of view of the experiencing subject, S-imaginings and R-memories are phenomenologically rather similar. At the same time, however, R-memories and S-imaginings play very different roles in a subject’s mental life. Indeed, a subject who R-remembers a certain past event usually (rightly) takes it that the relevant experience presents her with how things were in the past, while a subject who S-imagines something does not usually do so. The present paper offers a novel answer to the question how subjects are able to (rightly) treat those different kinds of mental episodes in relevantly different ways. More specifically, the answer developed here sets out by developing and defending the “Narrative Claim”, namely the claim that a set of beliefs (and experiences) can provide a subject with a reason to take it that a present experience presents her with how things were in the past if, on the basis of the relevant set of beliefs (and experiences), the subject would be able to tell a reasonably detailed, autobiographical story which includes a reference to the content of the relevant experience. But then, so I show, a subject’s R-memories usually are “embedded” in a context of beliefs (and experiences) on the basis of which the subject is able to tell a reasonably detailed, autobiographical story which includes a reference to the content of the relevant experience, while S-imaginings usually are not embedded in such a context of beliefs (and experiences). On the basis of this difference, subjects are able to treat S-imaginings and R-memories in relevantly different ways. Indeed, so I finally show, in order for a subject to be able to treat S-imaginings and R-memories in the relevantly different ways, is necessary that the subject be able to tell autobiographical stories. This, in turn, is a novel and rather surprising conclusion. It should further our understanding of one particular feature of our mental lives, namely our ability to treat S-imaginings and R-memories in relevantly different ways, and it should also lead us to acknowledge that our ability to engage in simple autobiographical narratives plays a more fundamental and crucial role in our day-to-day mental lives than we might have realized so far.





Parallel Sessions: Monday

Benedicte Veillet (bveillet@hotmail.com): **Concept Acquisition and the Content of Experience**

Concept acquisition seems to change experiential content: the avid bird watcher no longer sees the beach as filled with birds but sees it rather as filled with robins and sparrows. Assuming that concept acquisition does change the content of experience, how might we explain that change? I consider two possibilities: 1) the bird watcher's newly acquired concepts get to enter into the content of her experience; and 2) the bird watcher's newly acquired concepts causally influence the visual processing of her experiential content. I call these the constituent view and the causal account respectively.

These accounts are linked to three accounts of the content of experience: conceptualism, nonconceptualism and partial conceptualism. In the paper, I argue that the concept acquisition data provides prima facie support for partial conceptualism. The overall argument is this:

- (1) There are two accounts of the changes in experiential content, the constituent account and the causal account.
- (2) The causal account cannot account for all changes in experiential content - it must be supplemented by the constituent account.
- (3) The constituent account is (a) incompatible with nonconceptualism and (b) incompatible with conceptualism (c) but compatible with partial conceptualism.

I conclude that

- (4) Changes in experiential content support partial conceptualism.

Catherine Stinson (ces35@pitt.edu): **Attention, Volition, and the Ghost in the Machine**

In this paper I examine the concept of attention as it is described in contemporary psychology and neuroscience. Two problems with theories of attention have to do with the lack of unity of the concept and the illusion of a causal agent in charge. There is much agreement that there are at least 2 kinds of attention, most often called selective and executive. Within selective attention, there are recognized to be a number of distinct mechanisms. Within executive attention, it is sometimes admitted that there are at least a number of different functions served, but this admission is countered by the intuition or hope that these various functions are all served by a single causal agent located somewhere in the frontal lobes. The lack of unity of the concept does not necessarily make it ill defined, nor the study of it a degenerating research program, but it does cause problems. First, there is a tendency for researchers to equivocate between different kinds of attention in their writing and in their thinking. Second, despite widespread agreement that attention is not unitary, there is a tendency to try to draw it together under a unified theory. The only ways of unifying all the senses of attention turn it into a chimerical and problem-laden concept. Many of the equivocations and attempts at unification flounder on the issue of whether attention is an effect or a cause. Within the field, the possibility that cause theories of attention might suffer from a "homunculus problem" has been noted, but then mostly ignored. I investigate this problem more thoroughly, and argue that cause theories of attention, including the most common conceptions of executive attention, are incoherent.





Parallel Sessions: Monday

B7. Language

Richard Moore (r.t.moore@gmail.com): **Daniel Dennett's Account of the Child's Accession to Language and Thought**

Against the background of his claim that “only speakers can be thinkers”, Daniel Dennett purports to explain how the pre-linguistic infant acquires language (and thought) from a starting point of only the “stupid practices” of mechanistic association. According to the account that Dennett proposes, the child first hears the words of its caregivers without understanding them. As a result of its taking up and repeating these words to itself in a commentary on its activities, their meanings are gradually distilled. Thus language acquisition is explained in terms of (1) the association of sounds and the context of their utterance, and (2) repetition. I argue that on the basis of what Dennett says, it's clear neither how the child could come to discern the referents of words, nor how it could come to understand how these words are being used. Furthermore, after Wittgenstein, I will argue that the repetition of words cannot explain one's coming to understand them, since nothing about words instructs us in their correct use or application. Rejecting Dennett's account and the simplistic thought/association dichotomy that motivates it, I will start to sketch out a more credible middle-ground. With reference to recent empirical work on infant cognition, I will suggest that prior to its acquisition of language the infant is affectively engaged with its peers and the environment that they cohabit. Attention to the nature of this engagement - incorporating an understanding of the purposive activities of others - helps to explain the infant's ability to learn word meanings.

Manuel Hernández Iglesias (mhi@um.es): **Literality and the semantics/pragmatics distinction**

The most natural way of drawing the distinction between semantics and pragmatics appeals to the notion of literal meaning. According to this view, the literal meaning of an utterance is the meaning determined by linguistic conventions alone. This literal meaning may differ from speaker's meaning, that is, from what the speaker means as opposed to what the speaker says (the literal meaning). In order to grasp the speaker's meaning, the interpreter must appeal, in addition to linguistic conventions, to some aspects of the context of utterance. Given this picture, a distinction between semantics and pragmatics can be easily drawn: the business of the former would be the study of linguistic conventions and how they determine the literal meaning, while the business of the latter would be the study of how the different aspects of context determine speaker's meaning.

The distinction between semantics and pragmatics based on the notion of literal meaning has been challenged by contextualists. Contextualists claim that, at least in most cases, no proposition at all can be determined by semantic conventions alone. In this view, the very notion of literal meaning as defined above collapses, and, with it, also the notion of semantics as the explanation of the determination of literal meaning.

The main purpose of this paper is to defend a definition of 'literal' not committed with the literalist thesis that there is a meaning that can be determined by conventions alone and, therefore, not committed with the standard distinction between semantics and pragmatics.



Parallel Sessions: Monday

Mark Cain (mcaain@brookes.ac.uk): **Linguistics and Philosophy: A Response to Devitt**

What is the subject matter of linguistics? In his recent book “Ignorance of Language” Michael Devitt attacks the Chomskyan psychologicist answer to this question and argues that linguistics is the study of linguistic reality, a study that is not to be confused with any psychological investigation of the basis of our linguistic competence. Devitt’s argument is based upon an examination of chess and bee dance where, he claims, there exists a distinction between structure rules and processing rule. In this paper I shall argue that Devitt’s position is deeply problematic. Contrary to his analysis there are salient differences between chess and bee dance. What Devitt says about chess is broadly correct but there are reasons for doubting that there is any strong analogy between chess and language so making his consideration of the former completely irrelevant when seeking to understand the latter. With respect to bee dance, he completely misdescribes that phenomenon with the implication that an appeal to bee dance does little to motivate his claims about language.

Patrick Hawley (patrick@hku.hk): **Attention and Proper Names**

Hector is at a party, drinking a martini, conversing with some colleagues. From across the room, Elaine says, “Hector!” and Hector turns around to see what Elaine wants. Psychological and neuroscientific evidence suggests that Elaine succeeds in getting Hector to pay attention because of processing very different from the processing that would occur if Hector is already paying attention, and hears “Hector” in a sentence like “Hector is happy”. Making sense of this everyday use of proper names arguably provides good reason to reject causal theories of reference, and supports, to some degree, a surprising sufficient condition for reference: if a hearer H is disposed to pay attention when a name n is uttered, then n refers to H.

Bio. Causation, imagination, perception

Panu Raatikainen (panu.raatikainen@helsinki.fi): **Mental Causation and the Interventionist Theory of Causation**

The problem of mental causation, the exclusion problem and the causal closure of the physical are discussed by taking into account certain recent developments in the philosophy of science. The issue is viewed from the perspective of the new interventionist theory of causation, developed especially by James Woodward. It is shown that from its point of view, it is perfectly reasonable, in certain cases, to take agent’s mental state, rather than the underlying brain state, as the cause of agent’s behavior. The import of the idea that causal claims involve contrastive classes in mental causation is also discussed. It is argued that mental causation is much less a problem than it has appeared to be.





Parallel Sessions: Monday

Jean-Yves Beziau (jean-yves.beziau@unine.ch): **Imagination in Perspective**

In a first part I will discuss the relation between imagination, language and thought, recalling some basic philosophical views such as the ones of Plato and Descartes.

In a second part I will study the relation between imagination, rationality and logic, through a precise analysis of imagination and possibility via modal logic.

In a third part I will explain how imagination can be understood via a model of brain activities I have been developing with the team of Patrick Suppes at Stanford, based on networks of associations. To insert imagination in these networks I will use some ideas that have been put forward by the neuroscientist of Berkeley Walter Freeman.

Juan Suarez (juan.suarez@unifr.ch): **Is Disjunctivism the best account of perceptual content?**

In “Beyond Dispute” and the first chapter of “Uncovering Appearances” Mike Martin presents a dialectical argument in favour of disjunctivism. According to Martin the most charitable way of understanding the debate around the argument from illusion is to attribute to both tenants of the debate, Sense-datum theorists and Intentionalists, a commitment to the phenomenal assumption that the nature of perceptual experiences is obvious to us. This claim is in tension with the disagreement about what the nature of appearances is. When we give up this claim disjunctivism comes out as the best position to account for the nature of perceptions. In this paper I purport to present a way of understanding the debate in which Sense-datum theorists and Intentionalists can hold up to the claim and agree about the nature of appearances, thereby blocking the dialectical argument for disjunctivism.

Philipp Keller (philipp.keller@lettres.unige.ch): **Counterevaluatives**

I discuss the peculiar behaviour of counterevaluatives, sentences that claim evaluative matters to be different from how they actually are. Counterevaluatives have recently received a lot of attention in discussions of the so-called “puzzle of imaginative resistance” (Gendler 2000). Distinguishing between quasi- and make-believe mental states, I trace the difficulties we experience in imagining counterevaluatives to the way in which counterevaluatives involve quasi-emotions and quasi-feelings. I’ll argue that both the fearfulness of the dangerous and our incapability to imagine it being otherwise are consequences of the way emotive states in general behave under off-line simulation: it is because the relation between quasi-fear and real fear is different from that between supposition (make-believe assertion) and assertion that we cannot imagine not being afraid of the fearful. The constitutive relation between emotive quasi-states and the formal objects of their real counterparts should also shed some light on normative necessity.





Parallel Sessions on Tuesday, 10th of July

Parallel Sessions: Tuesday

A2. Communication

Esther Romero & Belén Soria (eromero@ugr.es, bsoria@ugr.es): **Metaphors: what is said or what is implicated?**

The main problem raised in this talk is whether the result of metaphorical interpretation must be involved in what is said or in what is implicated. According to the first position, the speaker means what he metaphorically says. According to the second, the speaker says one thing in order to mean another. A variety of theorists have recently argued against the explanation of metaphor as particularized conversational implicature, but as Camp (2006) has recently argued, their arguments are not conclusive. This has left a space for defending the conception of metaphor as implicature. In this context, the main aim of this talk appears: to show that for metaphor to be considered as a case of implicature, the notion of implicature should change until a point in which the notion is unrecognisable. What is more, it ends up having the properties that are usually attributed to what is said. Thus, we argue that, in the theoretical explanation of how metaphors work, the result of metaphorical interpretation is more naturally located in what is said.

Erika Nurmsoo & Elizabeth J. Robinson (e.nurmsoo@warwick.ac.uk, E.J.Robinson@warwick.ac.uk): **Learning from others: Children's understanding of speaker inaccuracy**

Koenig & Harris (2005; Harris, 2007) show that 3- and 4-year-olds learn from speakers with a history of accuracy rather than inaccuracy. In their studies, one speaker consistently provides correct labels for familiar objects (e.g., a ball), while a second consistently labels them inaccurately for no apparent reason. On test trials, the two speakers offer different novel names for a novel object. Children use the label given by the previously accurate speaker. In Experiment 1 we found that 3- and 4-year-olds showed the same pattern of responding when the inaccurate speaker wore a blindfold while mislabelling familiar objects, removed on test trials: Children did not excuse the inaccuracy despite understanding why it occurred. In Experiment 2, both speakers had a history of inaccuracy, one for no apparent reason and one blindfolded. Again children showed no sensitivity to reasons for inaccuracy. Children may use a simple heuristic with no mentalising, contrary to Harris's (2007) assumption.

In contrast, in an interactive task with a live actor (Experiment 3), children were sensitive to reasons for past inaccuracy: They believed an actor despite her history of inaccuracy due to being poorly informed. Children can make mentalistic attributions for speaker inaccuracy when they participate actively.



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Parallel Sessions: Tuesday

Richard Breheny (r.breheny@ucl.ac.uk): **What Infant Reference Studies Can Tell Us About the Nature of Human Communication**

A flood of recent research has provided important data about infants' production of, and response to, referential acts (see Tomasello et al in press, Csibra & Gergely 2006 for summary overviews). This research has also generated debate about how to interpret this data. In particular, Tomasello et al claim that pointing for a 12 month-old infant is a complex cooperative activity which involves mutual recognition of a 'social intention' (an intention to share information or feelings about the object of the referential act with the person for whom the pointing is performed). Southgate et al. (in press) argue that this interpretation of the data reads too much into results. In particular, they are sceptical that 12 month infants would intend to share information with pointing gestures. However, Southgate et al.'s alternative analysis is really no less 'lean' than that of Tomasello et al. In particular, their analysis involves a 'social intention' that the person for whom the pointing is performed supplies information to the child about the object of the referential act.

In this paper it will be argued that the employment of the social intention is unnecessary in the analysis of proto-speech acts. It will also be argued that it is unlikely that 12 month-old infants have a concept of an individual having information, sharing or supplying information. It will be argued that infant pointing gestures could and should be given a more minimal analysis according to which children seek to bring about actions on the part of others rather than changes to information states. This minimal analysis is proposed in Breheny (2006).

Tanya Behne (Tanya.Behne@manchester.ac.uk): **Early communication and pragmatics - Exploring young children's comprehension of deictic and iconic gestures**

In this paper I want to present three studies on young children's comprehension of deictic and iconic gestures. The first study examines whether infants recognize others' communicative intent as expressed by deictic gestures, such as pointing (Behne et al.). Results showed that infants, as young as 12 months, were able to use an adult's pointing gesture to guide their search for a hidden toy - suggesting that they recognised the relevance of the gesture in the context of the game. The second study examines whether infants take note of what experience they have shared with a communicative partner when interpreting his or her pointing gestures (Liebal et al.). Results showed that infants interpreted the same pointing gesture, performed in the same manner and context, differently depending on what experience they had shared with the pointer. The final study extends this research to look at young children's ability to gain information from iconic gestures (Haimel et al.). Two-year-olds were presented with the task of opening different apparatuses. For one group of children, an adult used iconic gestures to convey how to open the apparatuses. Children in this group made significantly more appropriate attempts at opening the apparatuses than children in a baseline comparison group. Findings on one- and two-year-olds' communicative abilities will be discussed with regard to children's social cognitive development.





Parallel Sessions: Tuesday

A6. Emotion

Olivier Massin (olivier.massin@lettres.unige.ch): **Mixed feelings and the feeling of effort: when we are pleased because we are displeased**

Mixed feelings occur when a same subject experience both pleasure and displeasure at the same time. I argued that mixed feelings are not only possible, but that they constitute a widespread phenomenon. In the first part, I answer to three objections against the possibility of mixed feelings, the most important one being that mixed feelings contradict the view that pleasure and displeasure are contraries. In the second part, I argue that pleasure in effort, the pleasure we take in doing things, is a widespread phenomenon that constitutes a case of mixed feeling of a special sort: a case where the displeasure grounds or explains the pleasure. I argue that none of the usual strategies of the enemies of mixed feelings for dealing with putative cases of mixed feelings (oscillation between pleasure and displeasure, rejection of one of the two feelings) achieves to deal with pleasure in effort.

Aaron Ben-Ze'ev (benzeev@research.haifa.ac.il): **Hating the One You Love**

Many testimonies, as well as fictional works, describe situations in which people find themselves hating the person they love. This might initially appear to be contradiction, as how can one love and hate the same person at the same time? In order to cope with this problem, I argue that love and hate are not diametrically opposed attitudes. In particular, love and hate are based upon a weighted, rather than a comprehensive, evaluation. At the basis of romantic love (and hate) there is a profound positive evaluation of one or a few of the beloved's characteristics. This evaluation is typically associated with a comprehensive evaluation that extends the positive evaluation to other characteristics. It is plausible therefore that when people describe their relationship as a love-hate relationship, they may be referring to different features of each experience. Such situations do not involve logical contradiction but merely psychological incompatibility (or dissonance).

Astrid Hopfensitz & Ernesto Reuben (astrid.hopfensitz@cisa.unige.ch): **The importance of emotions for the effectiveness of social punishment**

This paper experimentally explores how the enforcement of cooperative behavior in a social dilemma is facilitated through institutional as well as emotional mechanisms. Recent studies emphasize the importance of anger and its role in motivating individuals to punish free riders. However, we find that anger also triggers retaliatory behavior by the punished individuals. This makes the enforcement of a cooperative norm more costly. We show that in addition to anger, 'social' emotions like guilt need to be present for punishment to be an effective deterrent of uncooperative actions. They play a key role by subduing the desire of punished individuals to retaliate and by motivating them to behave more cooperatively in the future.



Parallel Sessions: Tuesday

Agnes Moors (agnes.moors@ugent.be): **Automatic constructive appraisal as a candidate cause of emotion**

Critics of appraisal theory have argued that appraisal is a laborious rule-based process and therefore not a plausible cause of emotions. Appraisal theorists have used different strategies to respond to the criticism. A first strategy is to argue that appraisal was never meant as a cause but rather as a constituent of emotions. According to this view, appraisal is not a process but a description of the structure of emotional experience. A second strategy is to argue that appraisal is actually a process (and causal), but that appraisal theories have merely given a functional description of it rather than a formal one. A third strategy would be to investigate empirically whether rule-based appraisal can be automatic. Empirical research concerned with the automaticity of rule-based processes faces at least two problems. A first problem is that automaticity is a gradual notion and not a matter of all or nothing (Bargh, 1992; Moors & De Houwer, 2006a). A second problem is that at present there is not a satisfying criterion to distinguish the associative mechanism from rule-based ones (Hahn & Chater, 1998; Moors & De Houwer, 2006b, Sloman, 1996; Pothos, 2005). I therefore propose a fourth strategy which is to empirically investigate the automatic nature of constructive instead of rule-based processes involved in appraisal. I argue that the appraisal process should primarily be characterized as constructive and not necessarily rule based. Thus, by investigating the automaticity of constructive appraisals, the core of appraisal theory can be maintained and studied.

A10. Symposium: Aspects of Knowledge Processing (Josef Ilmberger & Britta Glatzeder)

Research on the nature of kinds of knowledge (or mental content, or mental representations etc.) has created a plethora of questions that have occupied philosophers and psychologists alike over centuries. Despite all efforts no common framework has been established and controversies are bound to continue. We believe that the problem is rooted in terminology varying over research disciplines and personalities. We delineate a taxonomy of “knowledges” that might help to clear the picture and prepare the ground for interdisciplinary collaboration and present links to various research topics from different disciplines.

Josef Ilmberger & Britta Glatzeder (Josef.Ilmberger@med.uni-muenchen.de, bg@parmenides-foundation.org): **Kinds of Knowledge: a taxonomical approach**

Animals - human and non-human - need knowledge in order to evaluate inbound information (from the outside world and from within the body), to operate on this information and already stored knowledge, and to act (searching food, having sex, and collect even more information in action-perception cycles). But what is knowledge? How is it acquired and how is it stored? Are there fundamentally different kinds of knowledge, or does all knowledge consist in bringing experience under concepts (as Kant assumed)? What kinds of knowledge do non-human animals have? Research on knowledge has created a plethora of questions that have occupied philosophers and psychologists alike over centuries. Despite all efforts no common framework has been established and controversies are bound to continue. We believe that the problem is rooted in terminology varying over research disciplines and personalities. We delineate a taxonomy of knowledges





Parallel Sessions: Tuesday

that might help to clear the picture and prepare the ground for interdisciplinary collaboration. In following Deacon the three layers of this knowledge taxonomy are labelled as iconic, indexical and symbolic. Iconic and indexical knowledges are nonverbal and exist also in nonhuman animals; symbolic knowledge may be verbal in one of several parallel systems. Iconic knowledge is based on discrimination processes, i.e. it is gained by same/different classifications. A specific sensory event is classified as belonging to one of two classes: same (as other event/as before) or different (as other event/as before), and entails one of two behaviors: continue behavior, or change behavior. Making iconic statements (same same same) are acts of not making distinctions (Deacon). An example from biology would be orienting reactions (changes in the periphery are followed by a re-orientation of body parts towards the change in order to analyze more precisely what is there). Indexical knowledge connects at least two iconic relationships; it is based on multiple classifications. Specific sensory events may now belong to two or more classes (Hayek). An event gains its meaning in the context of other events. There are events representing redround things and redsquare things with different behaviors required. Multiple classifications represent concepts or syngrams; concepts thus are abilities to represent the physical world for the guidance of action (Millikan). An example from biology might be concept grasping. Words are not needed to have and apply concepts, but may be used for communication (e.g. in a Wittgensteinian Sprachspiel) and word learning. However, at this level words display just another feature being attached to a concept. This kind of using words is not language. Symbolic knowledge consists of re-represented (Karmiloff-Smith) indexical content; knowledge systems on this level are languages (sets of symbols with grammars). The meaning of a symbol is a function of the relationships to other symbols. On the symbolic level, mental content is often described in terms of verbal knowledge, but there are other languages (musical, mathematical, motor - corresponding to Gardner's intelligences) highly developed in human experts. An example from biology would be choreographies. We believe that the three-layered taxonomy of knowledges described above might provide a platform facilitating interdisciplinary collaboration between the various research disciplines (psychology, cognitive and neuro-sciences, philosophy, evolutionary anthropology, and robotics) upon which the scientific study of knowledge must draw.

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Riccardo Manzotti (Riccardo.Manzotti@iulm.it): **From phenomenal experience to knowledge**

All human knowledge comes from experience and experience is rooted in phenomenal experience. It is far from clear how phenomenal experience, which is subjective, could provide bedrock for third-person knowledge. David Chalmers referred to this gulf as the paradox of phenomenal judgment (Chalmers, 1996). Other authors referred to it as the explanatory gap (Levine, 1983; Jackson, 1986). The primary nexus of the relationship between phenomenal experience and





Parallel Sessions: Tuesday

knowledge lies in consciousness and yet most authors underestimate the origin of all third-person knowledge. Phenomenal experience has a special role in our knowledge of the world: consciousness is self-knowing. On the other hand, under the spell of physicalism we are pushed towards forms of epistemic epiphenomenalism like in the case of the inverted spectrum (Shoemaker, 1982) - although persons of normal sight make the same distinctions of colour, we cannot ascertain whether their consciousness of red, blue, etc. is just like our own. Can't we? Yet there other approaches that struggle to find a common foundation for phenomenal experience and the physical world, for phenomenal experience and knowledge (Strawson, 2003; Skrbina, 2005; Manzotti, 2006). Arthur Eddington observed that (Eddington, 1929/1935) "The problem of the scientific world is part of a broader problem - the problem of all experience. Experience may be regarded as a combination of self and environment, it being part of the problem to disentangle these two interacting components." Phenomenal experience could be the place where knowledge and reality are one.

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Susanne Neufang, B. Herpertz-Dahlmann, G.R. Fink & K. Konrad (susanne.neufang@parmenides-foundation.org): **Iconic knowledge processing in children - the neural correlates of time discrimination**

Iconic knowledge is based on discrimination processes, i.e. it is gained by same/different classifications: a specific sensory event is classified as belonging to the same (as other event/as before) or a different (as other event/as before) class (Deacon, 1997). Based on the assumption that iconic knowledge is strongly linked to perceptual processing we chose a time discrimination task with duration differences in the millisecond range, a task subsumed under time perception (Rubia & Smith, 2004). We investigated 36 children (21 boys, 16 girls) aged from 8 to 15 years using fMRI, looking for developmental effects in both the activation pattern during the task and the functional relation between the activated structures (effective connectivity via psycho-physiological interactions). We found higher activation in the anterior cingulate cortex in adolescents in contrast to stronger activated right supplementary motor area and right inferior precentral gyrus and the left cerebellum. Connectivity analysis developed that activation in the right inferior frontal gyrus was significantly correlated with activation bilateral in the cerebellum as well as in the thalamus. We conclude from our developmental results that activation in the overall network reduces with age, reflecting a more





Parallel Sessions: Tuesday

efficient processing in adolescents compared to children. The higher activation in the acc in adolescents however might reflect parts of the default mode (Polli et al., 2005), awakened with puberty. In contrast to the baseline network the architecture of time discrimination does not change with age, which goes in line with behavioral studies, which showed time discrimination reaching an adult level at the age of 8 years (Droit-Volet, 2003). The correlation pattern between the right ifg, the thalamus and bilateral cerebellum might reflect an 'exemplary' top-down loop of iconic knowledge processing with the ifg regulating the activation of the cerebellum, where the actual discrimination takes place (for review see Rubia et Smith, 2004), with the thalamus as pace maker.

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Michael Öllinger (michael.oellinger@parmenides-foundation.org): **“I morph therefore I know”: The interplay between conceptual morphing processes and knowledge**

Thinking can be understood as the manipulation of mental content. In our view mental content can be roughly described as encoded information - our concepts. There is still the fascinating and unanswered question how our brain can deal with the variety of environmental stimuli and extract knowledge from that and administer those knowledge in a effective way. A number of cognitive theories try to answer this question. The most prominent representatives are the Classical View, the Similarity-Based View, and the Explanation-Based View that focus on the question in which form concepts are stored and represented. We propose a new approach that is based on the assumption that morphing processes between two exemplars are responsible for categorization, in particular when two objects should be judged as same or different. We will provide behavioural, fMRI and EEG data that verify this view and synthesize the existing theories with this latter approach to gain further insights in the processes that are involved in categorizing, accessing, and recognizing knowledge.





Parallel Sessions: Tuesday

A14. Experience

Stuart William George Derbyshire, Abhijit Chaudhuri & Peter O Behan (s.w.derbyshire@bham.ac.uk): **Is Fish Pain a Misnomer?**

Fish behaviour changes in the presence of noxious stimuli and it is known that the oral region of fish contain free nerve endings that can detect noxious stimuli. Subsequently, it is suggested that fish responses to noxious events include cognitive and emotional reactions amounting to a subjective experience of pain. This suggestion of fish pain, however, rests on a mistaken equivalence between the biological and psychological development of fish and humans. Pain is dependent upon the presence of higher cortical and psychological development, which are absent in fish. Attributing conscious appreciation of pain to fish implies a propositional attitude, belief and knowledge towards their state that is simply absurd. There is no medium, neural or psychological, to hold this level of experience. A “ground-floor” of sentient existence that allows for the sensing of noxious events without knowing That I am in pain remains open to debate but even if such an unknowable sentience can logically exist it is a mistake to suggest equivalence between passive sensation and active experience. In the Second Meditation, Descartes explains that “perception is neither an act of vision, nor of touch... but only an intuition of the mind.” The penetration of our bodies by physical stimuli exposes sentience to the reason of the mind; the mind is not drowned or dissolved by the senses. Fish may be sensorily immersed but are not self-located within sensory experience. It is therefore prudent to separate any debate regarding fish sensations from the misguided notion of fish pain.

Ursina Teuscher (uteusche@cogsci.ucsd.edu): **Time-space synesthesia and conceptual time-space mappings: A look at neural bases and at the synesthete in all of us**

Synesthesia is a condition in which certain types of perceptual or conceptual stimuli evoke sensations in another, unstimulated modality. In one type of synesthesia people report that they associate time events, such as months of the year, with specific spatial locations. Behavioral and event-related brainpotential (ERP) findings show that time-space associations in synesthesia are consistent and automatic and impact visuospatial attention via a symbolic cuing paradigm (Teuscher, Brang & Coulson, in prep).

Previous research has argued that synesthesia may provide important insight into higher-level conceptual processes. From that perspective, I note here the close correspondence between time-space synesthesia and one well-studied class of conceptual mapping, the time-space mapping. The cross-cultural existence of this metaphor has traditionally been interpreted as a result of our common embodied experiences in the world. Although we agree that experience is important, we suggest that this metaphorical mapping may arise not only because of the structure of our embodied experience, but also because of the structure of our brains and the manner in which our brains make sense of that experience (Hubbard & Teuscher, *subm.*). Recent findings in human neuroimaging, neuropsychology and monkey physiology suggest that the parietal cortex houses circuitry crucial for both temporal and spatial representations. We suggest that the same neural structures that in synesthetes may lead to perceptual experiences, are connected to a lesser degree in everyone, thus providing a brain based constraint on the universal Time is Space metaphor.

A better understanding of the bottom-up constraints imposed on our conceptual structures by our neural structures has profound implications for our understanding of cognition.





Parallel Sessions: Tuesday

Sandrine Darsel (sandrinedarsel@yahoo.fr): **Musical experience and sentimental education**

Talk point-blank about the education of emotions by music may frighten. On the one hand, it seems like emotional engagement is diametrically opposed to the sphere of knowledge and education. On the other hand, even if we contest this opposition, it seems as if art is useless, or worst demolishing, for the education of emotions because art and knowledge would be polar opposites. Contrary to these two common thoughts, I want to insist about the role of music in education emotions. The cognitive contribution of music is precisely the education of emotions in two different ways: either by the musical expression of emotions, either in the emotional responses with regard to properties of the musical work.

Chiara Guarda (chiara.guarda@gmx.net): **Functionalism and Experience**

Ned Block has offered famous arguments against functionalism. Yet, these arguments go through if and only if one identifies functionalism with a behavioral theory. However, functionalism need not be so identified. A functionalist might understand functional isomorphism in terms of functional organization of a given physical system. She might argue that a mental state is determined by the particular performance of a functionally organized physical system. (For the sake of argument, let us neglect the question of how such determination is to be understood). The functionalist might then claim that, if two physical systems are functionally organized in the same manner, receive the same input, and can perform their functions without failures, if one of them determines a mental state the other must determine the same mental state too. To reject this claim, one has two options. The first is to deny that mental states are determined by the performance of functionally organized physical systems. The second is to make the noise in the performance of functionally isomorphic systems responsible for different mental states. Both options encounter enormous difficulties and result highly implausible. I conclude that we have no sound reason to reject the thesis that functionally isomorphic physical states must be in type-identical mental states. Indeed, the puzzle about experience has not so much to do with this thesis, but rather with the fact that an experience is what it is. David Chalmers claims that this is the hard problem of consciousness, and I agree with him.



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Parallel Sessions: Tuesday

B2. Knowledge, self-knowledge

Fabian Dorsch (fabian.dorsch@uclmail.net): **Imagining and Knowing**

In this talk, I would like to defend the claim that episodes of visualising can ground knowledge and highlight some of its philosophical consequences. The claim at issue is, more specifically, that - if embedded in the right kind of context - visualising that p can ground non-introspective, knowledge-constituting judgements that p (where p concerns some contingent fact about the external world). For example, by visualising a certain arrangement of boxes in the interior of a removal van, we may - in the right kind of circumstances - come to know that the respective number of boxes, if thus arranged, fits inside the van. And, as I intend to illustrate, this claim about the potential epistemic role of visualising has important consequences, not only for how best to account for the nature and features of imaginative episodes, but perhaps also for discussions about certain issues in epistemology and the philosophy of mind, such as epistemic responsibility, perceptual and judgemental commitment, and rational motivation.

Lisa Bortolotti (l.bortolotti@bham.ac.uk): **Does authorship contribute to self-knowledge?**

In both philosophy and commonsense we distinguish between two ways of characterising the asymmetry between the first and the third person. We have a privileged claim to knowledge of our beliefs because (a) we typically have better access to their content and (b) we exercise some control over what we come to believe. Richard Moran argues that authorship provides a kind of first-person authority that includes a sense of ownership of the belief but requires also an active role that can be explained in terms of deliberation, justification or commitment. Only by having the capacity to defend and endorse a belief do we become its authors. Moran suggests that authorship gives rise to self knowledge and that there is a link between (a) and (b). It is this link which has been challenged on the basis of the empirical evidence on introspection.

In the paper I defend the claim that authorship contributes to self-knowledge. Limited as it is, authorship has an important role to play in attitude formation and decision making. Motivated attitude shifts due to justification or deliberation are likely to increase responsibility and self awareness when the processes leading up to authorship are rational, that is, when they take into account all the available evidence and are based on the subject's best reasons. But even when the processes of deliberation and justification are not rational, attitude shifts should be seen as a consequence of a breakdown of rationality and not necessarily as a failure of self knowledge.





Parallel Sessions: Tuesday

B5. Causation, counterfactuals

Sarah R. Beck (s.r.beck@bham.ac.uk): **What do children understand about what almost happened?**

We examined children's understanding of things that almost happened. Harris found that 2 year olds can identify such events (Harris, 1997), even though other studies show they find counterfactual thinking difficult until around 4 years (e.g. Riggs et al, 1998). In the horse event the target horse stopped within 2cm of the edge of the table, the comparison horse stopped 15cm from the edge or fell. In the wall event the target doll could almost reach a ball on top of a wall, the comparison doll was too short or reached the ball.

In experiment 1 (N=32, mean 4;1; 3;3-4;9) children performed no better than chance when identifying the target character. In experiment 2 (N=64, mean 3;8; 2;11-4;6) performance was substantially better when there were only two characters and the comparison character did not complete the action. In experiment 3 (N=41, mean 3;11; 3;4-4;4) we replicated this finding. Children saw only two characters. When the comparison failed to complete the action, children performed well. When the comparison completed the action, children were as likely to pick the horse that almost fell as the one who really fell. 3 and 4 year olds do not show a reliable understanding of 'almost' and thus, our findings do not support the claim that very young children can think counterfactually.

Teresa McCormack, Patrick Burns & Stephen Butterfill (t.mccormack@qub.ac.uk): **Detecting blickets: What processes underpin young children's causal judgments?**

Recent research has suggested that by three or four years, children make causal inferences that are not based on simple detection of associations. Sobel, Tenenbaum, and Gopnik (2004) have reported that children of this age demonstrate the phenomenon of backwards blocking, a finding which they claim is problematic for simple associative models. Our study tested a central prediction of simple associative models: that performance should be affected by the order in which information is presented. It also examined whether young children demonstrate true blocking by including appropriate control tasks. Groups of four-year-olds and five-year-olds were assigned to either a Forward or a Backward condition. Both conditions involved Gopnik, Sobel, Schultz, and Glymour's (2001) blicket-detection task, in which children are introduced to a machine which lights up and plays a tune when activated by a 'blicket'. Familiarisation and pre-training procedures were closely modelled on those of Sobel et al. Following Gopnik et al., test trials involved three demonstrations in which colored blocks were placed on the detector singly and in pairs. Each trial involved one demonstration in which one block was put on the detector on its own, and two demonstrations in which pairs of blocks were placed on it simultaneously. The order of these demonstrations and whether or not the detector activated during each demonstration varied between trial types. For example, Backward Blocking trials involving a pair A and B would proceed: AB together = machine activates; AB together = machine activates; A on its own = machine activates. Children then had to judge separately for A and for B whether it was or was not a blicket. Backward blocking is judged to occur if participants tend to categorise A but not B as a blicket.



Parallel Sessions: Tuesday

B8. Traits, emotion

Sergi Rosell (sergi.rosell@uv.es): **Skepticism About Character Traits**

Ordinarily we ascribe character traits (CTs) to persons; that is, we say that someone is honest, courageous, cowardly, kind, compassionate, etc. As traditionally understood, CTs seem to be relatively broad dispositions to respond with the trait-relevant behavior to the trait-relevant situation. However, research in social psychology has produced some results that appear to some to undermine our ordinary talk of CTs. Particularly, these results have been interpreted as supporting this situationist claim: systematic observation of behavior contradicts people's behavioral reliability that we would expect in virtue of our ordinary beliefs and standard theoretical constructions of personality (Ross & Nisbett [1991]); from which some philosophers (especially, Harman [1999], [2002], and Doris [1998], [2002]) conclude that there are no such things as CTs. After briefly reviewing some of the more relevant situationist experiments, I begin by clarifying the Traditional View of CTs and making explicit the Skeptical Argument for their elimination. Then, I will try to resist this radical conclusion by proposing these three independent - though closely related - arguments. (1) addresses the generalization problem of the experimental data; in particular, what it seems to me is an unjustified restriction of generalization to CTs. By (2) I attempt to undermine the distinction between robust and local CTs, which I judge fundamental for the eliminativist project - given the aim of avoiding a complete counterintuitive revisionism. Lastly, (3) stresses difficulties in considering all situations in our life as matching the experiments' situations, and denounces Doris's final moral advice as inconsistent with the very eliminativist interpretation of the experimental results. My conclusion will be that the experimental data neither entail eliminativism, nor render it as the only/best option. They only justify a qualified deflationism that I will further specify, which must be kept distinct from localism.

Matthew Richard Broome, Louise Johns & Isabel Valli (m.r.broome@warwick.ac.uk): **Decision-making and delusion formation in people at risk for psychosis**

Background: Cognitive models propose that the faulty appraisal of anomalous experiences is a critical factor in developing psychosis, particularly delusions. A data gathering bias may be a fundamental component of abnormal appraisal.

Aims: To examine whether a data gathering bias is present in people at high risk of developing psychosis.

Methods: Individuals with an At Risk Mental State (ARMS; $n=35$) were compared with a matched group of healthy volunteers ($n=23$). Subjects were tested using a modified version of the 'Beads' reasoning task with different levels of task difficulty.

Results: When task demands were high, the ARMS group made judgments on the basis of significantly less information than controls ($p < 0.05$). Within both groups, a 'jumping to conclusions' response style was directly correlated with the severity of abnormal beliefs, and intolerance of uncertainty ($p < 0.05$). In the ARMS group jumping to conclusions was also associated with impaired working memory ($p < 0.05$), whereas in controls poor working memory was associated with a more conservative response style ($p < 0.05$).

Discussion: People with an ARMS display a jumping to conclusions reasoning style which is associated with impaired working memory and intolerance of uncertainty. This may underlie their tendency to develop abnormal beliefs and their vulnerability to psychosis.





Parallel Sessions: Tuesday

BII. Modularity

Dario Taraborelli & Ángeles Eraña (angeleserana@yahoo.com, d.taraborelli@ucl.ac.uk): **Drilling down to modules. On the need of Individuation Criteria for Cognitive Modularity**

Since its onset (Fodor 1983) the modularity debate has suffered from conceptual flaws, some of which have already been identified and criticized in the literature (Samuels 1998; Gerrans 2002; Barrett & Kurzban 2006). These flaws have systematically been addressed by suggesting revisions of the notion of a module rather than by focusing on the very question of what it means to individuate a module. We argue in particular that two clearly distinct, though often conflated, research programs have been confronting themselves in this debate: one that aims at producing analytical models of the processing systems underlying behavior; another one that does not aim at modeling cognitive architecture per se as much as at understanding the evolutionary history of domain-specific capabilities. We claim that these two programs serve distinct theoretical purposes, but are both rhetorically built on the assumption that some sets of features define necessary conditions for a module. We review examples from the literature in which claims of modularity or non-modularity have been defended by relaxing these conditions. Our main contention is that if the modularity hypothesis is meant to do explanatory work, then the question of what individuates a module (as opposed to any cognitive subsystem that can be isolated on arbitrary grounds) should become crucial.

Giuseppe Lo Dico (giuseppe.lodico@unicatt.it): **A Module For Decision-Making?**

Double dissociation is considered the main neuropsychological method. Let's consider two patients with brain injuries. Patient 1 has bad results in cognitive test measuring writing, but is good in tests measuring reading. Patient 2 has the opposite problem. If patient 1 shows a lesion in the brain area X and patient 2 in another area Y, neuropsychologists infer that writing and reading are localized in different brain areas.

The basic assumption of dissociation method is that mind is divisible in independent cognitive mechanisms implemented in different brain areas. This is the idea of modularity proposed by Fodor. A module is a cognitive mechanism with a limited capacity, specialized for a specific function and impenetrable by information of other parts of cognition. Fodor distinguishes modules from central processes that require more information than that available in a module and are accessible by other parts of cognition. He maintains that cognitive impenetrability is the core of modularity and argues that modules are very few. Other authors, instead, think that mind is almost-at-all modular and this is what allows to use the method of dissociation.

In my paper, I aim to consider if it is plausible that a cognitive system, in order to be recognized as a module, must be informationally encapsulated. For this aim, I propose an analysis of the Damasio's 'somatic marker hypothesis', which tries to explain decision-making as a cognitive and cerebral module.





Parallel Sessions on Wednesday, July 10

A3. Intentionality

Stéphane Lemaire (stephane.lemaire@univ-rennes1.fr): **The construction of self-conscious emotions**

It is tempting to see self-conscious emotions (shame, guilt, embarrassment, pride) as constructed from more basic emotions since they appear after one has acquired a conception of the self and the ability to make normative judgments. However, under the pressure of followers of Ekman, of evolutionist approaches and of social psychologists, the predominant view in cognitive science is that they are basic and modular. In favor of this view, it can be argued that these emotions are universal and that they imply universal displays whereas the available constructivist views seem unable to explain these facts because they tend to see constructed emotions as culturally dependent or as consisting only in the conceptual specification of basic emotions.

Nevertheless, modular approaches tend to overestimate the link between a type of normative judgment, a physiological response and an innate expressive display because they rely too much on stereotypical examples of each of the self-conscious emotions.

Hence, once this systematic link is severed, it becomes possible to see these emotions as constructed from three types of building blocks: normative judgments about the self, basic emotions, and innate expressive displays that have a communicative function. Moreover, we are justified to speak of constructions since the particular association of these blocks that constitute the occurrence of an emotion depend on a specific context, on past experiences and on learning processes. An interesting consequence is that a constructivist approach can take its elements as universal and can see constructed emotions as universal while rejecting that our folk-concepts for these emotions fit with natural entities.

Marius Dumitru (Marius.Dumitru@ens.fr): **What It Is Like to Think**

The claim of this paper is that if there is an intrinsic phenomenal character of thoughts, it has to be functionally exhausted to a great extent. Arguments are presented against exclusively equating the presumed phenomenal character of thoughts with verbal phenomenology (e.g., subvocalized speech), and the feelings of comprehension and conviction, on the ground that these phenomenal aspects of thoughts are derivative (similar to associated imagistic and emotional phenomenology) and engender certain anomalies if considered separately as accounting for the phenomenology of thoughts. Functional exhaustion for the case of cognitive phenomenology is shown to be immune to inverted spectra and absent qualia objections, because from the point of view of inferential involvement, colour concepts are constructs derived from experience, and zombie arguments are not free from prior assumptions of separability between functional and phenomenal aspects in the case of thoughts.

Parallel Sessions: Wednesday





Parallel Sessions: Wednesday

Mark Sprevak (mds26@cam.ac.uk): **Functionalism and the extended mind**
Clark and Chalmers (1998) claim that cognitive processes can and do extend outside the head. This claim – the hypothesis of extended cognition (HEC) – has been strongly criticised, most notably by Rupert (2004) and Adams & Aizawa (2001). In this paper, I argue that HEC is a harder target than Rupert, Adams, and Aizawa have supposed. A widely held view in the philosophy of mind, functionalism, entails HEC. However, the version of HEC entailed by functionalism is more radical than the version that Clark and Chalmers suggest. I argue that it is so radical as to form a counterexample to functionalism.

Nicholas Shea (nicholas.shea@philosophy.ox.ac.uk): **Connectionist Representational Development**

This paper uncovers and rejects a hidden assumption that underlies two arguments made by Jerry Fodor (1) for radical concept nativism and (2) against connectionism. The nativist argument assumes that concept development is to be accounted for in terms of processes occurring over existing contentful resources, where those resources in turn determine the content of the new concept. The argument against connectionism offers to read ‘distributed’ in one of the following ways: Version One. Mental representations are distributed over neurons. Version Two. Some mental representations are distributed over others. Version One is uncontentious and uninteresting, whereas Version Two is the familiar project of structuring lexical concepts out of primitives. But we should differentiate between objects that are relevant for two different purposes: Obj₁. Individuals which count as vehicles of content for the purpose of giving a representational explanation of the behaviour of a system. Obj₂. Individuals which feature in an explanation of the development of new representations. In characterising connectionism, Fodor re-deploys the assumption which underlies his concept nativism, namely that Obj₁ = Obj₂. In PDP models, Obj₁ can be distributed over Obj₂. The story about representational development may be told at the level of individual neurons while the most basic level of content attribution stops at the level of distributed patterns of activation. PDP models hold out the prospect of giving an account of representational development in non-contentful terms, which avoids radical concept nativism. That gives connectionist models considerable philosophical importance.





Parallel Sessions: Wednesday

A7. Emotion

Otto Bruun & Fabrice Teroni (otto.bruun@lettres.unige.ch, fabriceteroni@freesurf.ch): **Shame and its Evolution**

This study raises concerns about possible conceptual confusions and inconsistencies in the present debate concerning the evolution of shame, which we diagnose as stemming from an infelicitous framing of the question. The study focuses on one evolutionary theory of shame: that of Dan Fessler. It is the most complete, detailed, and plausible of the theories currently available, and yet also clearly exemplifies the faults cited above which are symptomatic of the general debate. We first provide an overview of current evolutionary perspectives on shame, offering reasons to reject the diverse positions presented. We then outline Fessler's data and his theory, presenting his account of shame as evolved from a primitive proto-shame emotion. Next, we present two objections to the theory as outlined. One concerns the cogency of the evolutionary story, arguing that the adaptive functions attributed to shame and proto-shame are excessively divergent. The other concerns Fessler's conceptual assumptions concerning shame, arguing that the identifying features of shame and proto-shame are excessively divergent. Finally, we offer a diagnosis of the weaknesses apparent in existing evolutionary theories of shame and suggest that a more fruitful approach involves a reframing of the question.

Julien Deonna & Olivier Massin (olivier.massin@lettres.unige.ch, julien.deonna@lettres.unige.ch): **Do emotions exist?**

It is still a temptation for many to want to reduce emotions to other mental phenomena. It has been argued that emotions are kinds of desires, kinds of cognitions or a mixed of the two. After reviewing some of the well-known and less well-known arguments against these attempted reductions, we suggest that the overriding difficulty with these attempted reductions is connected to the general assumption that the activities of the mental are all to be regimented according to psychological states having one of two directions of fit: the mind-to-world direction of fit or the world-to-mind direction of fit. First, the direction of fit criterion leaves open the rarely considered possibility that some mental states might have no direction of fit or a double-direction of fit; we discuss what these two possibilities might amount to. Second, we argue that direction of fit is only one criterion by means of which we categorize mental states, and that hedonic tone is an equally fundamental one. Mental states vary in hedonic tone from the very negative, the neutral, to the very positive. Using both criteria, it is possible to create a matrix generating many more types of mental states. Although only a few of these types might look as if they could count as emotions, only a few of these candidates emotion will constitute a sui-generis class not ultimately reducible to either pure cognitions, pure conations, a mix of the two or simple bundle of sensations. We argue that there is no reason, either conceptual or empirical, for counting any one single type generated by our matrix as constituting what emotions are. Quite the opposite, different types of emotions will fit nicely in different emotions types.





Parallel Sessions: Wednesday



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Åsa Carlson (asa.carlson@philosophy.su.se): **Gibbard and moral emotions**
Alan Gibbard's influential expressivistic meta-ethical theory relies on a certain understanding of emotions (Wise Choices, Apt Feelings 1990; Thinking How to Live 2003): Moral judgments are explained in terms of emotions, hence emotions may not essentially involve judgments. "It is wrong to do x" is analysed as "it makes sense to feel guilt if one does x" or "it makes sense to feel anger towards someone who does x". Gibbard discusses briefly two different kinds of theories, adaptive syndromes theories and attributional theories, which he believes to be compatible with his expressivism, but, of course, clearly despises of so-called judgmental theories. However, there are, explicitly and implicitly, substantial criteria an account of emotion has to fulfil to fit into Gibbard's expressivism:

i) Senseless, irrational emotions, going against our beliefs or judgments, are possible.

ii) To be, for example, afraid is to be in a state where a "mechanism of fear" is operating. The mechanism is pointed out by - but not identical with - fearful circumstances; symptoms of fear; tendencies/actions to avoid what is fearful.

iii) Emotions are internal states, they are "emotional mechanisms" (presumably neuronal and endocrinal).

iv) Emotions are directed or intentional; they have a focus (an object).

This paper discusses, firstly, whether these criteria are coherent, which seems inter alia to depend on how the intentionality of emotion is spelled out, and, secondly, whether the best non-cognitive theories of today, for example Jesse Prinz', match Gibbard's views.

Alison E. Denham (alison.denham@st-annes.ox.ac.uk): **Reading Distress: Selective Egocentrism in Factor 1 Psychopaths**

Few experimental studies of the past decade have provoked greater interest among moral theorists than James Blair's comparative investigations of psychopathy and autism. Blair's studies addressed, inter alia, the question of how, if at all, mindreading deficits affect the moral competence of subjects manifesting each disorder. His question was an inspired one. Part 1 of this paper sets out how two moral theorists - Shaun Nichols and Jeanette Kennett - have interpreted Blair's findings. Their accounts of the nature of psychopathic disorder are very different, but both take Blair's comparative results to show that a subject's competence in 'core' moral judgment is in general independent of his proficiency as a mindreader. This thesis is the focus of my discussion in Part 2. I there re-consider two empirical claims that serve as premisses supporting it. The first premiss is that Blair's autistic subjects suffer mindreading deficits in ways that sustain the needed contrast with the mindreading skills of psychopaths, namely in their ability to respond discriminately to states of distress in others. The second premiss is that psychopathic individuals (or more precisely, Factor 1 psychopaths) are not subject to morally salient mindreading and TOM-related cognitive deficits. I argue that neither premiss is confirmed by Blair's findings. In Part 3 I sketch an alternative hypothesis: psychopaths are selective mindreading egocentrics, subtly impaired in their ability to detect and internally represent phenomenologically characterised states of distress (especially fear and sadness) in others and even in their own past and present selves.



Parallel Sessions: Wednesday

III. Folk psychology, ethics

Charlotte Blease (charlotte.blease@ntlworld.com): **More Troubles for Churchland**

Paul Churchland argues that folk psychology is a “degenerating research programme”. I contend that Churchland’s use of the term “degenerating” is undercut by his own views on what constitutes theoretical progress.

If we view trauma as a case of major psychological anomaly we can observe that “coming to terms” with the traumatic experience involves revising some core assumptions about how the world works. I contend that trauma victims display a predilection for the sort of pragmatic epistemic virtues that Churchland claims are indicative of theoretical progress. The case of trauma suggests that folk psychology cannot be deemed stagnant. Churchland will need to provide additional stipulations if he is successfully to make the claim that folk theory constitutes a degenerating theory.

Annika Wallin (annika.wallin@lucs.lu.se): **Is egocentric bias evidence for Simulation theory? A critique of Alvin Goldman**

Revised Simulation theory (Goldman, 2006) allows attributions that contain some or all of attributors’ genuine, non-simulated, mental states. The revision is argued to increase Simulation theory’s (Simulation’s) empirical power, since revised Simulation but not Theory theory (Theory) or Rationality theory can explain egocentric bias (the tendency to over attribute own mental states to others). Contrary to Goldman, I show that Simulation does not hold an explanatory advantage over alternative mindreading accounts. Theory and Rationality theory can explain egocentricity with heuristic mindreading and the diagnosticity of own beliefs, and these explanations are as simple and consistent as Simulation’s.

Karsten Stueber (kstueber@holycross.edu): **The Ethical Dimension of Folk Psychology?**

Participants in the debate about the nature of folk psychology tend to share one fundamental assumption: that its primary purpose is a cognitive one consisting in the prediction and explanation of another person’s behavior. Interestingly, a minority view grown stronger in recent years has challenged the underlying consensus of this debate by insisting that folk psychology and its concepts are somehow intimately and essentially linked to our ethical. In my paper I will evaluate the above ethical challenge to the basic cognitive assumption of the contemporary theory of mind debate, particularly as it has been argued for by Knobe. I will show how conceiving of folk psychology in an engaged manner enables one to account for one of the main results of folk’s intuitions about the concept of “acting intentionally” without being forced to accept Knobe’s ethical take on folk psychology. Yet while I conceive of folk psychological concepts as being primarily cognitive ones I will suggest in the last part of the paper that the structure of folk psychological explanations has ethical implications that have been insufficiently noted in the contemporary context.





Parallel Sessions: Wednesday

Alberto Masala (masalaalberto@gmail.com): **Virtue Theory and Its “Normative Niche”: How to Defend Virtue Ethics from The Attack of Situationist Social Psychology**

The idea that nurturing virtues such as courage, generosity, honesty, kindness (and the like) is crucial for individual well-being, correct moral functioning and successful community life is the gist of virtue ethics, an ancient and still developing philosophical approach to morality, dating back at least to Plato, Aristotle and Confucius. Contemporary situationist social psychology has criticized virtue ethics showing that behavior is impressively incoherent and sensitive to the force of subtle situational influences. The kind of harmonious and reliable global virtue the ancients described does not exist. I will clarify and qualify this criticism, showing that it frustrates only the exaggerated ambition of building an ethical theory of right action in terms of what a virtuous agent would do. The problem of this proposal is that psychological structures producing appropriate moral action in every context do not exist. It is not possible to define right action as what a perfectly wise and virtuous agent would do, because there is no plausible reference for this description, which could only fit an “ideal moral oracle”, failing to explain the psychology of really existing moral excellence. I will show that a more modest project of nurturing virtues defined as implying not-perfectly-reliable dispositions to act (just “on average tendencies”, as traits in personality psychology) is perfectly viable and promising. This project is currently being developed by positive psychology.”

A15. Perception

Christopher Gauker (christopher.gauker@uc.edu): **Similarity and Seeing-As**

This paper advances the thesis that perceiving a thing as being a certain way consists in locating the object of perception in a perceptual similarity space. The difference between accurate and inaccurate perception is explicated in terms of the functionally normal way of recording objects in perceptual similarity space, which in turn is defined in terms of the functionally normal way in which the perceptual similarity space guides behavior. Persistent illusions, such as the Müller-Lyer arrows, are countenanced by defining a sense in which distance on a dimension of perceptual similarity space may or may not provide a true measure of distance on a corresponding dimension of objective quality space. Inasmuch the mind can locate objects in perceptual similarity space without using concepts, this theory contrasts with all theories that explicate perceptual representation in terms of conceptual representation.

Anirban Mukherjee (anirban.mukherjee@reading.ac.uk): **Understanding Helmholtz on Perception**

Hermann von Helmholtz (1821-1894), the noted 19th century German scientist and philosopher is widely acknowledged to have done pioneering work in the area of perception. Helmholtz theorises on perception with a strong commitment to empiricism. He argued that the world impinges on the sense organs of the perceiver. The perceiver associates or connects the stimulations to form perceptions of objects and space which accommodates those objects. This he claimed involved unconscious inference. P. M. S. Hacker contends that “Helmholtz’s use of concepts of sensation, perception and perceptual inference suffers from extensive confusion”. According to Hacker, these conceptual muddles are a baggage of the 17th- and 18th- century speculation. In this paper, I intend to clarify and defend the theoretical position of Helmholtz’s work on perception as well as to consider the criticisms levelled against his position by Hacker.





Parallel Sessions: Wednesday

Emmanuelle Glon (emmanuelleglon@hotmail.fr): **A Window into a Virtual World; compensation theory and seeing-in**

What is special about the kind of visual experience we have when looking at a painting or photograph? According to Richard Wollheim the perception of pictorial representations is characterized by seeing the depicted object or scene in the two-dimensional coloring of the surface; i.e. the simultaneous “twofold” awareness of both the medium and the subject of the picture. This philosophical theory seems to have empirical consequences, as soon as we try to make it precise. Strikingly, certain pictures maintain their spatial effects despite changes in the observer’s vantage point, while others such as ceiling frescoes often look distorted unless viewed from just the right point. According to the compensation hypothesis (Pirenne, Kubovy), this difference is explained by the perceptual access or not to the picture plane permitting spectators to compensate for any infortunate angles and thus see the scene as from the right viewpoint. Thus the idea such that pictorial perception would be necessary twofold might be weighted by showing that surface viewing entails pictorial perception.

In section 1, I explain Wollheim’s concepts of seeing-in and twofoldness. In section 2, I discuss Wollheim’s approach of pictorial perception in the light of the compensation hypothesis. In section 3, I confront compensation hypothesis with both critical examples of pieces of art and insights coming from major alternative theories of shape constancy and perceptual invariance. I conclude that adherence to the compensation hypothesis appears to be not sufficient motivation for the postulation of twofoldness as a necessary condition for pictorial experience.

Keith Allen (keith.allen@sas.ac.uk): **Perceptual Constancy**

Properties like colour, shape, and size exhibit perceptual constancy: there is some sense in which they appear to remain constant throughout variations in the conditions under which they are perceived. But exactly what sense? According to ‘counterfactualist’ accounts of constancy proposed in the recent philosophical literature (e.g. Alva Noë, Jonathan Cohen), similarity in respect of colour, shape, size, etc., across perceptual conditions is not directly perceived. I argue that counterfactualist accounts of perceptual constancy misdescribe the phenomenology, and outline an alternative ‘actualist’ account.





Parallel Sessions: Wednesday

B3. Knowledge, self-knowledge

Jun Luo (jun.luo@utoronto.ca): **Ontological Norms Wanting Mechanism: Principled Explanation in Infancy**

I examine the “principled explanation”, the mode of explanation in developmental psychology that ascribes to infants knowledge of general principles (such as the “principle of continuity” that objects move along continuous spatiotemporal trajectories) and takes them to understand and reason about perceptual scenes according to such principles. I argue that instead of being the content of thinking or reasoning processes, these principles are actually the theorists’ articulation of ontological norms concerning what objects are. As ontological norms, they govern the behavior of what is registered as an object. Registering objects that conforms to such norms, however, requires mechanisms wherein knowing or invoking the principles is not helpful. The principled explanation fails to answer the important question how something may be registered, in the first place, as an object that conforms to the principles.

Anita Konzelmann-Ziv (Anita.Konzelmann@unibas.ch): **Epistemic Feeling - Truth-Conduciveness and Shared Intentionality**

On the assumption that affective phenomena are not to be a priori excluded from the extension of truth-conducive processes or faculties, the paper explores a stronger and a weaker account of epistemic feeling. According to the stronger thesis, epistemic feeling is construed as “truth-feeling”, i.e. a form of affective intentionality whose formal object is truth, truth-value or true propositions. This account understands epistemic feeling as veridical, hence directly truth-conducive property. The weaker thesis construes epistemic feeling as phenomenally affective state whose formal object is truth-conduciveness. According to this account, epistemic feeling is indirectly truth-conducive, assessing the appropriateness of occurrent knowledge providing processes by evaluating their success and their motivational conditions. It is argued that epistemic feeling taken in this sense is rather a form of shared than of individual intentionality.

B6. Metaphysics, logic

Aisling Crean (aisling@coombs.anu.edu.au): **Humean Humility**

The sceptical realist reading of Hume says that Hume believes that there are causal powers and necessary connections in nature but that we cannot know these powers and connections. I outline a problem for this view - a problem that threatens to make Hume philosophically unintelligible. I then explore an avenue to solving this problem.

Margarita Vázquez (mvazquez@ull.es): **Solutions to the Surprise Exam Paradox**

I analyze the “surprise exam paradox” or the “unexpected hanging paradox”. I study some interpretations of this paradox and give an attempt of solution, based on classical logic and temporal logic.



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Parallel Sessions: Wednesday

B9. Traits, emotion

Ivo Wallimann (ivowall@access.unizh.ch): **Equal Opportunity and Emotions**

Consider Paul, manager of a small company, who must choose between two equally qualified candidates. Paul has already met them both, Petra and Peter. He feels their qualifications and their potentials for good job performance are equal; yet, he senses more sympathy for Petra. It is therefore clear to him whom he should choose for the job: Petra! However, Paul's company advertises as an employer guaranteeing equal opportunity. Is equal opportunity still ensured if Paul legitimates his decision for Petra on the pro-attitude he senses for her?

I shall look more closely at Paul's sample situation. First, I will clarify the concept of equal opportunity. This section of my paper will conclude that emotions evoked by applicants should not be taken into consideration for job allocation. Second, I will discuss how emotions arise during the recruitment process: emotions are a consequence of Paul's interaction with candidates. Even though emotions should not be regarded as relevant criteria for job allocation, it is legitimate for Paul to have certain emotions towards the applicants. This will lead to the conclusion that in application procedures emotions provoke Fishkin's trilemma which consists of the conflict between equal opportunity and personal liberty.

Catrin Misselhorn (cmisselhorn@gmx.net): **In Defense of Moderate Moralism. An Emotion-based Account**

One of the major issues in aesthetics is whether the ethical value of a work of art does have an impact on its aesthetic value. There are two basic positions regarding this question: The first one is Moralism, i.e., the thesis that there is, indeed, a connection between the ethical and the aesthetic value of a work of art. The second one is Autonomism which holds that art and morality are two entirely separate spheres, and that, therefore, the moral value of a work of art does not at all influence its aesthetic value. In my talk, I want to develop an argument for a moderate kind of Moralism based on an emotion-based approach to the imagination. The core claim of the argument is that ethical defects do sometimes, as a matter of fact, prevent the audience from showing the emotional responses a work of art prescribes, and that this amounts to an aesthetic flaw. Two aspects are relevant in this context: 1) whether the imagined content is an instance of the formal object of the prescribed emotion and 2) how it is presented. However, even if a work of art fails because of ethical flaws to elicit the emotions it prescribes, this is not necessarily an aesthetic flaw. In order to make the account work in support of moderate moralism, we have to add some important qualifications.





Parallel Sessions: Wednesday

B12. Innateness, perception

Matteo Mameli (matteo.mameli@kings.cam.ac.uk): **On the Theoretical Function of the Notion of Innateness**

The innate/non-innate distinction plays an important role in the cognitive sciences; for example, it plays an important role in developmental psychology, cognitive anthropology, psycholinguistics, evolutionary psychology, developmental cognitive neuroscience, etc. The distinction is also used in some biological sciences; it is for example explicitly used by immunologists and, often implicitly, by researchers studying the development of morphological structures and of physiological processes. One important issue is whether the theoretical function played by the notion of innateness is the same in all these theoretical contexts (i.e. there is a single property that the notion of innateness is supposed to track in all of these contexts), or whether the notion plays a different function in different theoretical contexts (i.e. in each context the property is supposed to track a different property). Another important issue is whether the notion of innateness has genuine theoretical utility in any theoretical context, or whether it has no theoretical utility at all. The innate/non-innate distinction has its origins in folk thinking about psychological and biological matters (i.e. in what are known as ‘folk-biology’ and ‘folk-psychology’); the cultural distribution and developmental trajectory of this folk distinction are currently being studied by developmental psychologists and cognitive anthropologists. One possibility is that the folk distinction has been imported into various scientific disciplines and that it has been put to good theoretical use (perhaps via some kind of refinement) within these disciplines. Another possibility is that various researchers keep using the innate/non-innate distinction not because this notion has a useful role to play in science (or at least within their specific discipline), but rather because they are in the grip of folk thinking. In this paper, I will try to determine (a) whether it is possible to ascribe a single function to the notion of innateness across theoretical contexts and (b) whether it is possible to argue that this notion has genuine theoretical utility. The discussion will involve an analysis of how the notion of innateness is related to other notions that seem to play an important role in the cognitive and biological sciences and that are often used in connection with the notion of innateness itself, i.e. notions such as ‘genetic encoding’, ‘Darwinian adaptation’, ‘developmental robustness (or canalization)’, ‘lack of learning’, and ‘lack of adaptive plasticity’.

Gloria Ayob (gloria_ayob@yahoo.co.uk): **Perceptual switching: understanding the significance of the dynamical account of perception**

My aim in this paper is to critically evaluate John Campbell’s (2002) characterisation of the Fregean sense of a demonstrative concept and his account of why an object’s location matters in our understanding of perceptually-based demonstrative terms. Campbell thinks that the senses of a demonstrative term are the different ways of consciously attending to one and the same object over multiple, spatio-temporally discontinuous presentations, where conscious attention is a perceptual state rather than a cognitive one (ibid: 87). I will evaluate Campbell’s account of sense by exploring and comparing two scenarios in which the actual location of a seen object is different from its perceived location. I do this in order to motivate the following point: Campbell’s characterisation of the sense of a demonstrative term turns sense into a psychologistic notion. If this is right, then Campbell’s substantive account of the notion of sense produces a deeply undesirable consequence, namely that it is difficult to see how sense could underwrite reference. In short, I shall be arguing that Campbell’s account of the ways of perceiving an object is simply inadequate as an account of the Fregean notion of sense, according to which the senses of a demonstrative term are the different ways of thinking about an object.





Parallel Sessions: Thursday

Parallel Sessions on Thursday, July 11

A4. Symposium: Emotion and attention (David Sander)

Given the flow of events entering the cognitive system, together with its processing capacity limitations, a critical function shared by both emotional and attentional processes is to prioritize the processing of pertinent events, relative to neutral or mundane events, leading to enhanced perceptual analysis, memory, and motor action. Therefore, emotional processing might be intimately linked to attentional mechanisms, requiring swift evaluation of their affective meaning when they are relevant for behavior as well as when they are currently irrelevant but potentially significant. In particular, appraisal theories of emotion have proposed that an early and critical evaluation process is responsible for detecting the extent to which stimulus events are relevant for the momentary hierarchy of goals and needs of the individual, possibly leading to an enhancement of processing resources and a modulation of attentional processes towards these events. Given the growing interest for interactions between emotion and attention, the current symposium aims at bringing together three disciplines: psychology, cognitive neuroscience, and philosophy.

Tobias Brosch & David Sander (david.sander@pse.unige.ch): **Relevance detection and its role in attentional capture**

We will present some potential links between appraisal mechanisms and attention. In particular, we will discuss an alternative to the view that during evolution the human brain has specialized to preferentially attend to threat-related stimuli. This proposal is that all classes of stimuli that have high biological significance are prioritized by the attention system. In particular, human offspring is a biologically relevant stimulus, as it is related to the continuity of the species and thus of high adaptive value. We will in particular report a series of two experiments in which it was examined whether the Kindchenschema (baby schema) as described by Lorenz (1943) captures attention in a spatial attention task. Results indeed showed attentional capture by human infants displaying the Kindchenschema. Interestingly, the effect was restricted to left visual field presentation, which corresponds to a right hemisphere advantage. These findings show that positive biologically significant stimuli are prioritized by the attention system. In addition, the presentation will also include data from an electroencephalographic (EEG) experiment testing the same hypothesis, but interested in better understanding the temporal effects of such attentional capture.

Patrik Vuilleumier (patrik.vuilleumier@medecine.unige.ch): **Cerebral underpinning of “emotional attention”**

This presentation will describe the concept of “emotional attention” and discuss how investigating the brain can help to better understand the effects of emotion on attention. Indeed, recent advances in cognitive neuroscience -both with the use of functional brain imaging and the testing of neuropsychological patients - allow one to identify the cerebral underpinning of the interaction effects between attention and emotion. In particular, the amygdala seems to play a critical role in providing both direct and indirect top-down signals on sensory pathways, which can influence the representation of emotional events. It will be argued, based on classical and recent work, that these modulatory effects implement specialized mechanisms of ‘emotional attention’ that might supplement but also compete with other sources of top-down control on perception.





Parallel Sessions: Thursday

Christine Tappolet (christine.tappolet@umontreal.ca): **Emotion and attention: a necessary connection?**

As many psychologists and neuroscientists as well as some philosophers have underlined, emotions seem closely related to attentional phenomena. The model that is usually assumed is that emotions and attentional phenomena are distinct entities, which causally influence each other. By attracting someone's attention to a certain noise, one can cause that person to feel fear. And her fear will cause her to focus her attention on a range of related stimuli, thus limiting the information that will be taken into account. On this model, an emotion like fear can occur without attentional phenomena. The question I shall address is whether an emotion such as fear can occur without attentional focus on its target.

A8. Evolution, language, intention

Ralph Schumacher (ralph.schumacher@ifv.gess.ethz.ch): **Finding the Right Level of Explanation: The Educational Implications of Neuroscience**

The desire for founding educational reform on a sound empirical basis has coincided with a period of impressive progress in the field of neuroscience and wide public interest in its findings, leading to an ongoing debate about the potential of neuroscience to inform education reform. But is neuroscience really suited to provide specific instructions for improving learning conditions at school? Or is it too underdetermined with regard to psychological and pedagogical explanations to offer such advice?

This paper explores the educational implications of neuroscience. The first part presents an argument for the claim that in principle psychological explanations cannot be reduced to neuroscientific explanations. The second part concentrates on developmental cognitive and learning deficits to illustrate the significance of neuroscience for psychological and pedagogical research on learning and instruction. The third part focuses on the difference between biologically privileged learning processes and learning at school. Since in the case of learning at school, the factors that initiate learning processes and the way these learning processes are executed are not biologically determined, the description of the preconditions for this type of learning has to go beyond descriptions of the preconditions to be met by the human brain. In particular, preconditions for this kind of learning are primarily knowledge preconditions. Since psychological and cultural concepts are indispensable to describe them, neuroscience is in principle underdetermined with regard to learning conditions at school.

Murray Clarke (clarkemurray@hotmail.com): **Does Error Evolve?**

In this paper, I report evidence from Error Management Theory (by Buss, Haselton, Saal, Johnson, Abbey, et al.) and the Positive Illusions Literature (by Alicke, Cross, Gilovich, Taylor, et al.) that suggests that humans form systemically false beliefs about themselves and others. Error Management Theorists believe that such cognitive biases, formed when making judgements under uncertainty, are really psychological mechanisms that are designed to be biased when the costs of false-positive and false-negative errors were asymmetrical over evolutionary history. Such biases facilitated survival and reproduction, they were adaptive. Likewise, the Positive Illusions Literature suggests an adaptive advantage for the





Parallel Sessions: Thursday

pervasive overconfidence bias. If these theorists are even close to the mark, it would seem that to err is human, but that to err systemically, is good for your genome. I offer a solution to these issues that allows that error evolves in some cases but denies it in other cases. I also contrast my view with a recent alternative analysis of this same literature by McKay and Dennett. Finally, I show how my view on this topic represents a consistent development of the position on false belief that I advocated in my book, “Reconstructing Reason and Representation” (MIT, 2004).

Paolo Bonardi (pbonardi@libero.it): **The Fregean Theory of Belief and Anaphora**

The main purpose of this talk is to present a new argument against the Fregean theory of belief, proving that if anaphora are devices which keep the same denotation of the expressions they are linked to, then the Fregean theory of belief cannot make sense of a sentence like ‘a believes that she is F’, where the pronoun ‘she’ works as an anaphor linked to ‘a’. The presented argument takes its cue from two arguments against the Fregean theory put forward by Stephen Schiffer (“The Things We Mean”), which will be discussed in the talk.

Jan Slaby (jan_slaby@yahoo.de): **Affective Intentionality - Identifying the Key Issues**

Philosophical emotion theory long sought to reduce affective states to intentional states of another kind, for example, and most prominently, to cognitive states like value judgments or evaluative beliefs. Recently, however, non-reductive approaches to affective intentionality made a strong comeback: In line with phenomenologists like Husserl and Scheler, authors such as Peter Goldie, Bennett Helm, Sabine Döring and Matthew Ratcliffe (among others) claim that emotions have sui generis intentional contents that are not reducible to the contents of other kinds of mental states. Overall, the work of these authors converges in that it delineates the contours of a theory of affective intentionality - a theory of the sui generis way in which felt states are directed at the world.

The aim of this talk is to identify the key issues surrounding the notion of affective intentionality and develop considered views on them. Thereby, an overview concerning the current debate on the nature of affectivity, focused mainly on the four authors just mentioned, is provided.

First, the arguments against reductive and in favour of sui generis views are reviewed briefly. In particular, Goldie’s and Helm’s phenomenological considerations are assessed, but also Döring’s argument from emotional conflict. Subsequently, Helm’s account of felt evaluations - intentional feelings of significance that are “hedonically valenced” and holistically embedded into larger rational patterns - serves as a heuristic to locate and discuss the following issues: Are affectively intentional states intrinsically motivational? (Answer: yes) Are the feelings in question bodily feelings and does their bodily nature contribute to their intentional contents? (Answer: yes) What ways of being conscious while having an affective experience have to be distinguished? Answer: At least three:

1. An evaluative awareness of the emotionally relevant situation;
2. An reflexive awareness of being thus evaluatively engaged with the world (which need not yet be an awareness of the affective state in question);
3. A background awareness of one’s evaluative standing in the world (while one can be consciously focused on something else).





Parallel Sessions: Thursday

A12. Number, knowledge

Valeria Giardino (valeria.giardino@gmail.com): **The notion of counting**

In this paper, I discuss the notion of counting, which has traditionally been connected to the use of linguistic symbols. I will argue that counting is not only a matter of mastering some number system, but also involves some kind of spatial organisation. I will present the empirical evidence that has been provided in this respect by cognitive science.

My hypothesis is that counting means creating one-to-one correspondences between the elements in the world around us, in the form of an ordered sequence, and some kind of artefact we have invented to keep track of this order. My further speculation is that maybe it is by means of counting that we are able to fill up the representational gap that exists between small numbers precise subitizing and large numbers approximation. In some sense, it is by means of counting that we are able to increase the numerical semantics we happen to be innately provided with.

The activity of counting can thus be of interest in setting up a plausible connection between cognitive science results and the attention to mathematical practice: first, it allows going from simple to more complex numerical representations; secondly, it can be of help to some extent for the understanding of some set-theoretic notions.

Mario Santos-Sousa (msansou@gmail.com): **The “Bootstrapping” Metaphor**

Whereas certain numerical concepts, such as the concept of square root, and of real, imaginary or complex numbers, are only ever accessible to a tiny proportion of educated human adults in a subset of cultures, other numerical abilities are quite widespread—even among nonhuman species. There is current behavioral and neuropsychological evidence that the complex, uniquely human, culture-specific mathematical skills exhibited by human adults rest on a set of psychological and neural mechanisms that (a) are shared by other animals, and (b) emerge early in human development, continue to function throughout the lifespan, and thus are common to infants, children and adults. It has been proposed that these common and evolutionary ancient mechanisms account for humans’ basic “number sense” and form the building blocks for the development of more sophisticated numerical skills. Indeed, infants leave animals far behind in their numerical sophistication. What boosts this developmental difference? My tentative answer is that the power of the resulting conceptual system derives from the combination and integration of previously distinct representational systems, capitalizing on the human capacity for creating and using external symbols. Our working hypothesis will be that human beings can only develop their distinct conceptual abilities due to their original embeddedness in both the physical world and, most importantly, in a network of social institutions (public language). Thus, an important developmental source of number representations, in addition to the preverbal systems mentioned above, is the representation of numbers within natural language.

Friederike Moltmann (fmoltmann@univ-parisi.fr): **Reference to Numbers in Natural Language**

The common view is that there are two sorts of number-related entities natural language makes reference to: pluralities, that is, concrete multitudes, and numbers, abstract objects. On that view, the definite plural *the women* refers to a plurality, and the singular NP *the number of women* or a term like *the number*



Parallel Sessions: Thursday

eight refer to a number. Reference to numbers with the number of N seems particularly obvious in Frege's (1884) often discussed example (1):

(1) The number of planets is eight.

In fact, for Frege, just as for neo-Fregeans like Wright and Hale, the possibility of statements like (1), with the number of planets apparently acting as a singular terms, was a chief motivation for taking numbers to be objects, in fact objects introduced by principles of abstraction, on the basis of a relational predicate (such as equinumerous) and concrete objects (such as sets of planets).

In this talk I will argue that this view about (1) is mistaken: not only is (1) not an identity statement, but also the number of planets does not refer to a number (an abstract object) at all: rather it refers to a 'trope', a concrete manifestation of the property of 'having eight members' in the collection of the planets. Such a 'number trope' is an entity that inherits all number-related properties from the collection it is based on, but no other properties. If this is correct, then there is in fact no motivation from natural language for the view that numbers are objects, introduced by principles of abstraction.

I will show first that in contexts other than (1), the number of planets does not act as a term referring to numbers as abstract objects; rather it refers to a number trope, a collection qua having a certain number of members. Natural language at the same time does contain terms that refer to numbers, namely explicit number-referring terms such as the number eight. The crucial observation is that NPs of the sort the number of planets and explicit number-referring terms of the sort the number eight do not share the same properties:

- (2)a. The number of children exceeds the number of women.
- b. * The number eight exceeds the number four.
- (3) a. John compared the number of women to the number.
- b. John compared the number eight to the number nine.
- (4) a. The number of women was unexpected.
- b. ?? The number eight was unexpected.

The acceptability or particular reading of (2a, 3a, 4a) corresponds to that of (5a, 5b, 5c), with simple definite plurals:

- (5) a. The children exceed the women (in number).
- b. John compared the women to the men in number.
- c. The women were unexpected in regard to their number.

Number tropes thus are entities inheriting certain properties, the number-related properties, from their bearers, the collections. Number tropes, unlike abstract numbers, also can act as objects of perception and relata of causal relations:

- (6) a. John noticed the number of women / * the number eight.
- b. The (great) number of women changed the atmosphere of the meeting.
- c. ?? The (great) number eight changed the atmosphere of the meeting.

The distinction between the two constructions is made explicit in German *die Anzahl der N* ('the number of N') and *die Zahl acht* ('the number eight').

Returning then to (1), I will argue that this is not an identity statement at all, but a specificational sentence (Higgins 1973, Romero 2005), expressing not a relation of identity of a number with itself, but a relation between a question and an answer, a highly plausible analysis of specificational sentences in general (den Dikken et al 1999, Schlenker 2003, Romero 2005). More specifically, (1) says that the answer to the question of the property that is the gloss of the number trope the number of planets is 'eight'. Further evidence for this analysis of (1) is that eight in (1) cannot be replaced by an explicit number description: (7) # The number of the planets is the number eight. I will discuss the implications of these results for the philosophy of mathematics in general.



Parallel Sessions: Thursday

Julien Dutant (julien.dutant@lettres.unige.ch): **Knowledge Ascriptions and Gradability**

The debate over epistemic contextualism has recently raised the question whether propositional knowledge attributions were gradable predicates. Contrary to Stanley (2005), I argue that they exhibit genuine constructions of degree. However, these constructions are limited in several important ways; most importantly, they only include what I call “qualitative modifications” (well / better than) as opposed to “quantitative modifications” (much / a lot / more). Drawing on the work of Kennedy and McNally (2005), I argue that the absence of quantitative modifications shows that know itself is not gradable, but that know well is. An interpretation of these constructions is put forward, according to which know well operates on degrees of epistemic justification which is not at the same time degrees of knowledge. I explore an extension of the account into a unified semantics for the various gradable constructions that occur with know, and indicate its distinctive predictions. I conclude by listing several unsolved issues.

A16. Perception

Gillian Waters & Sarah Beck (GMW537@bham.ac.uk): **The influence of information access on young children’s understanding of perceptual modalities as sources of knowledge**

Young children’s metacognitive ability is often investigated through their understanding of perceptual ‘sources of knowledge’. Such tasks study children’s ability to consider and act upon the link between perceptual access and perceptual knowledge (e.g. O’Neill, Astington & Flavell, 1992). Awareness that some sort of perceptual access will lead to knowledge is apparent at 3-4 years of age (Wimmer, Hogrefe & Perner, 1988). It is not until around 5-6 years of age, however, that children can choose the correct perceptual action required to identify or locate a hidden target object (e.g. O’Neill, Astington & Flavell, 1992; Perner 1991). Yet, the perceptual information that children are given about the objects, before they are hidden, can vary between these tasks (e.g. O’Neill, Astington & Flavell, 1992; Pillow, 1993). The current study investigated the influence of self-experience and verbal descriptions of the perceptual properties of objects on children’s performance. One hundred 6-year-olds (mean age 6;5) took part in a task in which two balls that either looked the same and felt different (or vice versa) were hidden from them. On eight trials they had to decide whether to look or feel in order to find a target ball. They were allocated to one of four conditions that determined if they personally looked at and handled the balls or heard verbal descriptions of them (or neither or both), before they were hidden. Surprisingly, our analysis revealed that performance was significantly worse when children had been given verbal descriptions, $F(1, 100)=7.922, p=.006$. In fact, children’s ability to choose the correct perceptual access to find the target was reduced whether the verbal descriptions were presented in isolation, or in combination with their own direct experience. Children’s understanding of the link between perception and knowledge was influenced by the way in which such information was initially presented. We discuss possible reasons why verbal descriptions caused children such difficulties and future research is suggested.





Parallel Sessions: Thursday

Hemdat Lerman (h.lerman@warwick.ac.uk): **Perceptual experience and correctness conditions**

Our experiences can be veridical or not; an experience is veridical if the world is the way it is presented in the experience as being. Thus, there is a sense in which our experiences have veridicality or correctness conditions. In this talk I argue that, while it's true that an experience's correctness conditions are determined by the way things are presented in it as being, it is a mistake to attempt to specify the way things are presented as being in terms of correctness conditions. Such a specification, I argue, distorts the way information about the environment is made available to the subject in experience. The information available in experience at a time is partial and dependent on the subject's current perspective, the lighting and other relevant conditions. Furthermore, the information is presented to the subject, from her point of view, as partial and dependent on relevant conditions. These facts cannot be captured if the way things are presented in experience as being is specified in terms of correctness conditions. Furthermore, I suggest that these facts are essential for explaining how experience provides us with access to mind-independent objects.

Matthew Nudds (matthew.nudds@ed.ac.uk): **Visually guided action**

The phenomena of blindsight and other vision-action dissociations are usually taken to be phenomena of consciousness. It has been argued that since visually guided actions may be intact in the absence of visual experience, these dissociations show that visually guided actions are not guided by visual experience but by unconscious visual processes. Visual experiences are usually taken to have representational content of a kind I label 'presentational'. I argue that the control of action in general requires states with what I label 'directive' representational content, and hence that actions can be guided by visual experiences only if visual experiences have directive content. I show that the hypothesis that visual experiences have two kinds of content can explain the vision-action dissociations without appealing to consciousness and suggest that there is something that it is like to have an experience with directive content. I conclude that visual experience can guide action, and that blindsight is not a phenomenon of consciousness.

Philippe Chuard (pchuard@smu.edu): **Chromatic Appearance, Intransitivity and Context-Shift**

Could there be 3 coloured patches a, b, and c, such that, while (i) a and b look chromatically the same and (ii) b and c look the same too, (iii) a and c look different with respect to their colour? In other words, is the relation of looking the same intransitive? Recently, various philosophers have, for various reasons, answered this question in the negative. In this paper, I look at one popular strategy for denying that looks the same is intransitive: the context-shift strategy. On this strategy, apparent cases of intransitivity aren't genuine cases of intransitivity, because the chromatic appearance of the 'middle term' b shifts from contexts in which b is compared with a to contexts in which b is compared with c. Against this proposal, I shall argue that (1) there is no good empirical reason to think that such shifts in appearance actually take place in the relevant cases under consideration, and that (2), surprisingly, the most promising version of this strategy seems to entail intransitivity.





information on Geneva

Some information on Geneva

Altitude: 374 m above sea-level

Population: 184'758 inhabitants

Languages: official language French, other spoken languages: English and German

Exchange rate: 1 euro = 1.50 CHF. NB: the exchange rate of the euro for the Swiss franc isn't officially fixed and so is subject to the variations of the market. The current rate of exchange is available at the banks and in the press.

Exchange offices:

Gare Cornavin, Place Cornavin, 1201 Genève - Open 7/7; Change Cité, Rue du Mont-Blanc 21, 1201 Genève. Open from Monday to Saturday; American Express Int. INC-Aéroport, 1215 Genève. Open 7/7.

Taxis: basic load: CHF 6.30 + CHF 3.20 per kilometre (outside the town: CHF 3.80, nights, Sundays and public holidays: CHF 3.80, 4 or more passengers: CHF 3.80, baggage/animal: CHF 1.50). The prices between the airport and the city vary between CHF 30.- and CHF 35.- because they depend on the traffic and the number of passengers. The price is normally indicated on the taximeter.

Taxi Numbers:

Taxi-Phone Centrale SA Genève : +4122/331.41.33

AA Central Taxi : +4122/320.22.02

AA New Cab SA : +4122/320.20.20 or +4179/449.61.47

Tips: Taxes and services are included in the prices of the hotels, restaurants, and taxis, etc. A tip is thus not essential, but is justified for good service.

Visas: Travellers needing a visa to enter to Switzerland must make sure that it enables them to go back after having visited bordering countries. A valid passport is essential for excursions to France and Italy. Nationals of some countries will have to also obtain visas.

Geneva Transportation Card: All hotel, youth hostel and camping residents in Geneva can benefit freely from this transportation card. This card allows its holder to benefit without restriction from the transportation network in Geneva (TPG, CFF and the little boats called "les Mouettes"). More information is given at: www.unireso.ch

How to get around: The best way to get around in Switzerland is by train. You will find the electronic timetable on www.cff.ch. If you come to Switzerland more than once a year or travel a lot, consider buying a Half-Fare card. It gives you access to reduced fares and costs 150 CHF.

Emergency numbers

Police	117
Firemen	118
Ambulances	144
Intoxication	145
SOS Pharmacist	+4122/420.64.80
SOS Nurses	+4122/420.24.64
Found objects	+4122/327.60.00





Restaurants for lunch

Restaurants for lunch

Il Padrino – Excellent pizzeria close to “Uni Mail”

41, rue Dancet
1205 Genève
+4122/320.31.04



L'Universal – Good salads and close to “Uni Mail”

26, boulevard du Pont d'Arve
1205 Genève
+4122/781.18.81



O Sole Mio – Good pizzeria and close to “Uni Mail”

Boulevard Carl-Vogt 43
1205 Genève
+4122/321.75.07



Le Thé – Chinese: a very small charming Dim Sun place

65, rue des Bains
1205 Genève
+4179/436.77.18



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DÉPARTEMENT DE PHILOSOPHIE
UNI BASTIONS, rue de Candolle 2 | CH-1211
Tél. 022 379 70 50 | Fax 022 379 11 31



Restaurants for lunch

Café Saint Jean – Mexican

4, rue du Vieux-Billard
1205 Genève
+4122/328.34.44



Restaurants for dinner

L'Echalotte – Excellent food and good-value prices

17, rue des Rois
1204 Genève
+4122/320.59.99



Le Milan – Serves excellent pasta and other Italian non-pizza dishes. Close to the railway station Cornavin

9, rue de Chaponnière
1201 Genève
+4122/732.46.65



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Restaurants for dinner

La Mamounia – Maghreb cuisine

Boulevard Georges-Favon 10
1204 Genève
+4122/329.55.61



Coffee houses with wi-fi access

Rond-Point – Popular “brasserie”

Rond-Point de Plainpalais
1205 Genève
+4122/320.47.95

Le Remor – excellent ice-cream

3, place du Cirque
1204 Genève
+4122/320.47.95



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Nightlife, bars, clubs

Nightlife, bars

Café Art's
Rue des Pâquis 17, 1201 Genève
+4122/738.07.97

Les Brasseurs – Brewery close to the railway station Cornavin
Place Cornavin 20, 1201 Genève
+4122/731.02.06

Le Piment Rouge – Artamis – alternative
Quai du Rhône 14, 1205 Genève
www.aupimentrouge.ch

Café du Lys – close to “Uni Mail”
Rue Ecole-de-Médecine 7, 1205 Genève
www.cafedulys.ch

Le Lola – minimal electro-pop
Rue Richemont 7, 1201 Genève
+4122/731.32.37

Le Baroque – Bar, Lounge, Restaurant
Place de la Fusterie 12, 1204 Genève
+4122/311.05.15

L'étage – Artamis – alternative
Boulevard Saint-Georges 21, 1205 Genève
www.letage.ch

Café Sud – close to “Uni Mail”
Rue Ecole-de-Médecine 14, 1205 Genève
+4122/329.05.50

Clubs

L'Usine – alternative
Place des Volontaires 4, 1204 Genève
www.usine.ch

S.I.P
Rue des Vieux-Grenadiers 10, 1205 Genève
www.lasip.com

Au Chat Noir
Rue Vautier 13, 1227 Carouge
www.chatnoir.ch





Ideas for excursions

Ideas for excursions

Geneva has more than forty public and private museums as well as many art galleries. There are collections of archaeology, ethnography, natural history, art, applied art, science and technology. You will find below some of the main museums. Information is to be found on: <http://www.geneve-tourisme.ch> – culture.

Musée d'Art et d'Histoire

Rue Charles-Galand 2, 1206 Genève

+4122/418.26.00

mah.ville-ge.ch

Built between 1903 and 1910 and conceived like an encyclopedia, it brings together aspects of all Western culture from its origins to now.

Musée International de la Croix-Rouge et du Croissant-Rouge

Avenue de la Paix 17, 1202 Genève

+4122/748.95.25

www.micr.org

Geneva, the birthplace of the Red Cross, houses the only museum devoted to the work of Henry Dunant. Located opposite to the “Palais des Nations”, it was inaugurated in 1988 to evoke the extraordinary adventure of men and women in their humanitarian missions for more than 140 years.

Musée Rath

Place Neuve 2, 1204 Genève

+4122/418.33.40

mah.ville-ge.ch

The Museum Rath is the first of the Swiss Museums devoted to the Fine Arts.

Musée d'histoires naturelles de la Ville de Genève

Route de Malignou 1, 1208 Genève

+4122/418.63.00

www.ville-ge.ch/mhng

This is the largest Natural history museum in Switzerland. It is also a Genevese cultural meeting-place which is very appreciated particularly by children.

MAMCO, Contemporary Art Museum

Rue des Vieux-Grenadiers 10, 1205 Genève

+4122/320.61.22

www.mamco.ch

Inaugurated in an old factory in September 1994, Mamco exhibits industrial architecture and contemporary art.

Fondation Martin Bodmer, Library and Museum

Route du Guignard 19-21, 1223 Cologny

+4122/707.44.33

www.fondationbodmer.org

This exceptional collection, installed in the middle of Cologny, was the life-work of Martin Bodmer (1899-1971). It is one of the most important private libraries in the world; it reflects the adventure of the human spirit since the origins of the writing. Bringing together 160'000 items in approximately 80 languages, it includes hundreds of Western and Eastern manuscripts, among which is one of the rare specimens of the Gutenberg Bible.

