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"VALUES AND COGNITION"

BOOKLET OF ABSTRACTS

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ABSTRACTS

Agostino Pinna-Pintor (University of Turin)
The Opacity of Embodiment and its Format-Reuse Solutions

ABSTRACT.

The present paper is about what I purpose to call the Opacity Problem of Embodied Cognition (OPEC). Roughly, the idea that 'embodied cognition' is an ill-defined expression. I will examine a family of solutions to OPEC, according to which cognition is embodied when it reuses body-related formats. Format-reuse solutions to OPEC, I will argue, do seem to carry with them a set of further opacity problems, which in turns seem to constrain any theory that targets OPEC by means of these very notions. The discovered constrains will eventually deliver a less opaque notion of Embodied Cognition.

Alessandro Bogani (University of Trento - Center for Mind/Brain Sciences); Alessia Caponio (University of Trento - Center for Mind/Brain Sciences); Katya Tentori (University of Trento - Center for Mind/Brain Sciences); Benjamin Timberlake (University of Trento - Center for Mind/Brain Sciences); Stefania P Pighin (CIMeC - University of Trento)

Amplified Victim Blaming for Blameless Individuals: The Impact of Counterfactual Thinking in Younger and Older Adults

ABSTRACT.
Thinking counterfactually about how an accident could have been avoided can increase the blame attributed to the victims of the accident. Two experiments showed that this effect is observed in both younger and older adults even for scenarios in which the victims are effectively blameless.

Alessandro Bruno (IULM University); Pier Luigi Mazzeo (CNR); Aladine Chetouani (Université d'Orléans, France); Marouane Tliba (University of Orleans); Mohamed A KERKOURI (Université d'Orléans)

Insights into AI Hallucinations from a Large Language Models' Perspective

ABSTRACT.

We are used to associating hallucination with something properly human. Surprisingly, the term 'hallucination' currently features several AI (Artificial Intelligence) papers and reports depicting anomalies and unexpected AI models' results, which do not partake of reality. Why is that so? Has hallucination not exclusively pertained to human beings? One of the most recent milestones in AI entails the so-called LLMs (Large Language Models) performing natural language tasks (text mining, writing, question answering, style transfer) with previously unseen results. LLMs also run into a not negligible issue: Hallucination. LLMs-generated text may contain false information or misguiding statements.Why does AI hallucinate, then? Our work aims to get deeper insights into LLMs' hallucinations as they can represent an underrated threat to fake news spread over the Internet.

Alessandro Capodici (Università degli Studi di Messina);
Carmelo Mario Vicario (Università degli Studi di Messina)

Interoceptive and affective alterations in Body Integrity Dysphoria: An online self-reporting study

ABSTRACT.
People with Body Integrity Dysphoria desire to achieve a specific physical disability. This rare condition involves biological, psychological, and social processes. Our study compares 68 participants with BID with a control group to investigate alexithymia, disgust sensitivity, interoceptive awareness, and empathy. Our results suggest affective processing impairments in BID.

Alessandro Demichelis (IMT School for Advanced Studies Lucca); Marco Marini (IMT School for Advanced Studies Lucca); Dario Menicagli (IMT School for Advanced Studies Lucca)

The Cognitive Foundations of Antibiotics Resistance: a study on Perception, Knowledge, and Antibiotic Prescriptions

ABSTRACT.
This study examines the cognitive drivers of behaviours that increase antibiotic resistance, among medical practitioners and the general population. Through online surveys, it explores how trust and knowledge influence antibiotic prescription dynamics, aiming to uncover factors driving overuse and strategies for effective healthcare communication.

Andrei I Marasoiu (University of Bucharest)
A multilevel approach to the extended mind

ABSTRACT.
Does the mind extend beyond the organism into its environment? Clark and Chalmers (1998) argue that it does, illustrating it with the system formed by a memory-impaired patient Otto and his compensating notebook. A functionalist analysis of standing (or dispositional) beliefs could specify functional roles more coarsely or more finely. I argue that a multilevel specification involving finer functional roles is needed if verdicts of extended mentation are to be justified. If so, then the question of whether organism and environment form soft assemblies (Clark 2010) to support mentation will vary with which computational levels interface is made at, preventing all-or-nothing verdicts of whether the mind extends, in some respect, at all computational levels or not. The result is a principled skepticism with respect to verdicts of extended mentation.

Anna Gerna (Università degli Studi Roma Tre)

Too good to be true? Formation, management and reliability of impressions in online dating

ABSTRACT.
Digital era transformed relationship building via apps like Tinder, where first impressions are everything. This paper explores online impression development, focusing on self-presentation, morality and attractiveness' role. The aim is to show whether and how these digital impressions can be considered reliable, given the uncertainty reduction strategies we use in online interactions.

Camilla Colombo (RWTH Aachen University)

A Decision-Theoretic Approach to Assisted Medical Decision-Making

ABSTRACT.
Medical decision-making on behalf of intellectually and developmentally disabled (IDD) patients amounts to a critical challenge, one which has been widely discussed by bioethicists, medical, and legal personnel. Chief among the ethically sensitive issues is the recognition and safeguard of IDD patients' perspectives, values, and preferences in making and informing decisions, given their lack of the sophisticated abilities and cognitive standards which are traditionally required to exercise agential capacity. The current philosophical landscape, as well as general ethical guidelines, employ and advocate for rival approaches to assisted medical decision-making. In this paper, I argue that operationalizing these alternative models within a decision-theoretic setting could provide adequate technical tools for examining their critical differences and merits, and offer some techniques and examples for developing and discussing ethically sensitive accounts of supported decision-making.

Carlo Proietti (CNR (ILC)); Pietro Baroni (University of Brescia); Fabio Paglieri (CNR Rome); Serena Villata (INRIA Sophia Antipolis, France)

ARGUMENTATION, COGNITION, COMPUTATION: ETERNAL GOLDEN BRAID OR HOPELESS TANGLED MESS?

ABSTRACT.

This symposium introduces to the contemporary approach to formal argumentation in computer science and AI, its applications to natural language processing and the study of opinion dynamics. Further, we discuss its aspects of interest for the study of cognition and point to directions where gaps need to be filled.

Caterina Villani (Università di Bologna); Giulia Rambelli (Università di Bologna); Marianna Marcella Bolognesi (Università di Bologna)

Exploring Subordinate Semantic Category Organization in Human and Artificial Cognition

ABSTRACT.
This study explores the organization of subordinate semantic categories in humans and artificial minds. We investigate the internal organization of 187 basic-level concepts comparing the distributions of human-generated exemplars vs. vector-based representations of the same exemplars. Results show overlaps and divergences in human and artificial organization of semantic categories.

Chiara Lucifora (University of Bologna); Aldo Gangemi (University of Bologna); Claudia Scorolli (University of Bologna)

Attribution of creative skills to human and artificial artists: an online survey

ABSTRACT.

AI approximates computational creativity to human creativity. Our study explores human and AI artwork impact on creative judgment via online surveys on a sample of 30 subjects. Results reveal links between pleasantness, emotional intensity, and perceived creativity. Personality traits like neuroticism and extroversion negatively influence AI artwork perception.

Claudia Mazzuca (Sapienza University of Rome); Marta Arcovito (Sapienza University of Rome); Anna M. Borghi (Sapienza University of Rome)

Is water H2O? Differences and similarities in the conceptualization of water across chemists and non-chemists

ABSTRACT.

In this pre-registered study replicated and extended Malt's (1994) results on the conceptualization of water to Italian laypeople and chemists. We found that, unlike laypeople, chemists representation of liquids is more essentialistic, mostly driven by chemical composition rather than saliency in everyday life.

Daniela Altavilla (Roma Tre University); Ines Adornetti (Roma Tre University); Valentina Deriu (Roma Tre University); Alessandra Chiera (Roma Tre University); Francesco Ferretti (Roma Tre University)

First- and third-person narrative modulates neural activation during social cognition task. An ERPs study

ABSTRACT.

The aim of the present study was to investigate if and how a specific aspect of narrative, i.e., the perspective of the character (first and third person) modulates the neurophysiological activation in response to a theory of mind task and improves the accuracy in such task.

Daniele Porello (University of Genoa); Marcello Frixione (University of Genoa)

Exploring Trustworthy AI

ABSTRACT.

The description of Trustworthy AI (TAI) often encompasses delicate concepts such as fairness, interpretability, transparency, reliability, and accountability, necessitating clarification to foster consensus among stakeholders, a crucial step in justifying the TAI project. The goal of this symposium is to convene AI experts for a discussion on the foundational aspects of the TAI project, with a particular focus on how the main concepts of TAI are conceptualised and integrated into AI systems.

Darby C Vickers (University of San Diego); Nicholas Smith (Alabama A&M University)

Training Ethical Decision-Making in Autonomous AI: A Virtue-ethics Approach

ABSTRACT.

This paper advocates for a model of machine ethics based on Aristotle's ethical pedagogy from the Nicomachean Ethics. We argue that this model provides a basis for better ethical decision making practices. We conclude by providing a sketch of the machine learning techniques that could be used.

Davide Coraci (IMT School Lucca)

Second-order isomorphism: Why cognitive (neuro)scientists should care more about it

ABSTRACT.
Second-order isomorphism (SOI) is a concept introduced by Shepard to study representations. The present work investigates the fundamental role of SOI for enriching geometry-based models of knowledge representation recently discussed in different of research areas, such as Representational Similarity Analysis and Conceptual Spaces.

Davide Coraci (IMT School Lucca); Erika Bucci (IMT School Lucca); Alice Chinaia (IMT School Lucca); Giada Lettieri (IMT School Lucca); Afroditi Giannakopoulou (IMT School Lucca); Anil Karabulut (IMT School Lucca); Alessandro Pigoni (IMT School Lucca); Marcin Radecki (IMT School Lucca); Federica Ruzzante (IMT School Lucca); Erika Sampaolo (IMT School Lucca); Gianluca Sesso (IMT School Lucca); Lorenzo Teresi (IMT School Lucca); Caterina Vannucci (IMT School Lucca); Fabrizio Calzavarini (University of Turin); GUSTAVO CEVOLANI (IMT School for Advanced Studies Lucca); Giacomo Handjaras (IMT School Lucca); Luca Cecchetti (IMT School Lucca)

NeuroSynth: A systematic review

ABSTRACT.
One of the most powerful and popular tools for automatically decoding large-scale functional magnetic resonance imaging data is NeuroSynth. The current work aims to provide the first comprehensive systematic overview of the usage and the impact of NS on the domain of cognitive neuroscience.

Edoardo Vaccargiu (University of Neuchâtel)

Pragmatic understanding in infants' mind: Addressing the developmental puzzle

ABSTRACT.

Pointing gestures require pragmatic understanding to be interpreted. Post-Gricean models fruitfully explain the cognitive underpinnings of human communication, but some scholars question their plausibility for infant pragmatics. Do infants possess the cognitive wherewithal to pragmatically understand in a post-Gricean way? This talk addresses this developmental puzzle from a renewed perspective.

Elisabetta Lalumera (University of Bologna); Francesco Ellia (Alma Mater-Università di Bologna)

Empowering Digital Health Technologies in Mental Health: Addressing Epistemic Injustice with an Optimistic Perspective

ABSTRACT.
Digital Health Technologies (DHTs) offer promising solutions for mental health challenges but raise concerns about perpetuating epistemic injustice by delegating decision-making to opaque algorithms. This discussion explores the intersection of DHTs, mental health, and epistemic injustice, challenging the assumption of inherent injustice. The focus is on diagnostic predictive models in DHTs, emphasizing the importance of inclusive design, ethical data practices, collaboration with mental health experts, flexible usage, and user opt-out to empower patients and prevent epistemic injustice

Emiliano Loria (UPO); Francesca Memini (Con Cura Studio);
Carmela Rinaldi (UPO)

Ageing and new forms of digital proximity through Telecare: behavioural challenges

ABSTRACT.
In the next 30 years, the over-70s will constitute a significant proportion of the population in Western Countries. Promising technological tools emerging from international research in the field of Ageing can offer challenging opportunities to transform the future demographic aspect of society from a problem to a valuable resource.

Ennio Bilancini (Scuola IMT Alti Studi Lucca)

Exploring Artificial Intelligence with Behavioral and Cognitive Sciences

ABSTRACT.

We investigate the profound impact of AI on behaviors as well as social and personal values. Scholars delve into ethical considerations, uncovering how AI systems influence human values, biases, and decision-making, and explore ways to align AI with societal objectives, also considering statistical learning techniques on which AIs are built.

Eugenia Polizzi (Institute of Cognitive Science and technologies, National Research Council); Biljana Meiske (European University Institute); Amalia Alvarez-Benjumea (Institute of Public Policies and Goods, National Research Council of Spain); Giulia Andrighetto (ISTC-CNR)
Nudging Punishment Against Sharing of Fake News

ABSTRACT.
Corrective comments on social media can reduce belief in misinformation but can also serve as a publicly observable punishment against fake news sharing. By visibly displaying punishment, corrections can function as a norm nudge, updating observers' perception of the norms regulating it. We conduct an online experiment with participants joining an virtual online forum and commenting on posts shared by previous users, and manipulated the likelihood to observe other users' comments correcting fake news. Participants exposed to corrections were significantly more likely to reply with a corrective comment. Importantly, participants perceive replying with corrections to be more socially appropriate. Our results suggest that social corrections may work as meta-norm nudge, increasing punishment by amplifying its social appropriateness. Our findings suggest that interventions targeting "would-be" enforcers can provide a tool to complement policies specifically directed at norm violators.

Federica Ruzzante (IMT School for Advanced Studies Lucca);
Lorenzo Teresi (IMT School for Advanced Studies Lucca)
A Deep Dive in Italian Adolescents' Digital Life

ABSTRACT.
Our study, conducted in Italian high schools (n= 3074), investigates
adolescents' relationship with social media and gaming disorder. Anxiety and
attention disorders seem to predict heightened social media use. We will
furthermore explore subgroups, like gender and second-generation
immigrants, providing insights into the intersection of mental health and
digital behavior.

Federico Bina (University of Genoa); Massimo Reichlin (Vita-Salute San Raffaele University); Sarah Songhorian (Vita-Salute San Raffaele University); Francesca Guma (Vita-Salute San Raffaele University); Elisa Canu (Neuroimaging Research Unit, IRCCS San Raffaele Scientific Institute); Elisa Sibilla (Neuroimaging Research Unit, IRCCS San Raffaele Scientific Institute); Chiara Tripodi (Neuroimaging Research Unit, IRCCS San Raffaele Scientific Institute)

Effects of a moral reasoning intervention on moral justification abilities

ABSTRACT.
This study tests the impact of a moral reasoning intervention on the abilities to provide good justifications for one's moral judgments. In a pilot study, 27 students were split into a moral (N=13) and a non-moral (N=14) reasoning group. After attending a class on their assigned topic, students' justifications improved in both groups, and more significantly in the moral condition.

Francesca Ferraioli (Univesity of Messina); Chiara Lucifora (University of Bologna); Carmelo Mario Vicario (Univesity of Messina); Giorgio Mario Grasso (University of Messina)

Consumer Preferences Insights from Electrophysiological Measurements in a Virtual Supermarket.

ABSTRACT.

The research examines electrophysiological cues for preferences in a virtual supermarket using facial and submental muscle electromyography (EMG), along with electrodermal activity (EDA). Participants simulate food goods shopping while their electrophysiological and behavioral data is collected, aiming to study neural mechanisms and predictive potential of these indices for consumer purchases.

Francesco Bianchini (University of Bologna); Luisa Damiano
(IULM); Pierluigi Graziani (University of Urbino)
Cognitive Robo-Ethics 2023

ABSTRACT.
The Cognitive Robo-Ethics 2023 workshop intends to extend the attention
of the ethical research and debate on social robots to an aspect of human-
robot interaction which they often neglect: their cognitive side.

Francesco Ellia (University of Bologna / University of Wisconsin-Madison)

Computational Functionalism and the Neuroscience of Consciousness: A Critical Perspective on Recent Developments in AI and Consciousness

ABSTRACT.
This paper critically evaluates Butlin et al.'s (2023) approach to AI consciousness. It questions their theory-heavy framework in the context of a pre-paradigmatic science and challenges their reliance on computational functionalism, warning against overemphasizing proxies of consciousness such as report and functions over consciousness itself.

Gaetano Albergo (Liceo Pascal)
Literature and play the law

ABSTRACT.
One of the most important debates within the philosophy of literature concerns the cognitive value of literature and whether this value must be considered crucial for literary appreciation. Literary cognitivism supports the idea that some literary works have a cognitive value. Here, value means that our mind can learn knowable truths from them. In this way, literature is often brought into competition with science. One can argue that literature offers us truth in the same way that science does, namely by offering the reader propositions that can be judged for their truth value. An alternative to the propositional theory of literary truth consists in claiming that we acquire a particular kind of knowledge by reading literary works, a kind of knowledge we cannot acquire through science. This lead us to support the Aesthetic value condition: the cognitive value is essential to the aesthetic value of these works.

Giacomo Zanotti (Politecnico di Milano)

Explanation(s), Understanding and Trustworthy AI

ABSTRACT.
The paper addresses the issue of explanation in AI. It argues that high-level explanations of AI systems, aiming at providing non-specialists with an understanding of these systems' working principles and capabilities, should play a central role in the attempt to build trust in AI.

Giacomo Zanotti (Politecnico di Milano); Marco Facchin (University of Antwerp)

Affective artificial agents and the problem of transparency

ABSTRACT.
This paper focuses on affective artificial agents, namely AI-powered systems enabling emotionally engaging interactions with their users. We argue that affective artificial agents should be regarded as affective artifacts. However, we show that they are sui generis ones, for they give rise to a problematic tension between different transparency requirements.

Giulia Andrighetto (ISTC-CNR); Luca Tummolini (ISTC-CNR); Eva Vriens (ISTC-CNR)

Risk, Sanctions, and Norm Change: The Formation and Decay of Social Distancing Norms

ABSTRACT.
Global challenges like the climate crisis and pandemic outbreaks require collective responses that quickly adapt to changing circumstances. Social norms are potential solutions, but only if they are capable of adapting themselves. To investigate the ability of norms to adapt to changing conditions, from June 2021 to February 2022, we collected data to examine the formation and decay of social distancing norms as the Covid-19 risk decreased and increased.

Giulia Piredda (IUSS Pavia)

Photography and social networks: where affectivity meets technology

ABSTRACT.
The starting question regards the activity of posting pictures on our social network profiles: how do we choose these contents? In our activity on social networks, we tend to crystalize happy moments of our life, that we want to share with others. By doing so, we display the best version of ourselves, we create an ideal self. Many researchers fear that this tendency could be a way of falsifying the reality of our selves, by offering just one piece of information about our lives: the one in which we are happy, satisfied for our life choices (Fasoli 2019; Toma 2016). In this paper I would like to explore a more innocent and maybe naïve interpretation of this phenomenon by framing it in the debate on situated affectivity (Griffiths & Scarantino 2009; Colombetti & Krueger 2015) and exploring the interpretation of posts on social networks as potential examples of affective artifacts (Piredda 2020) and as pieces of our extended selves (Belk 2003; Candiotto, Piredda 2019; Heersmink 2017).

Guendalina Righetti (Free University of Bozen-Bolzano);
Claudio Masolo (ISTC-cnr); Pietro Galliani (Università degli
Studi dell'Insubria)

Concept Combination in Weighted Logic: an Empirical Study

ABSTRACT.
Building on previous work on Weighted Description Logic (WDL), we
present and assess an algorithm for concept combination grounded in the
experimental research in cognitive psychology. Starting from two WDL
formulas representing concepts in a way similar to Prototype Theory and a
knowledge base (KB) modelling background knowledge, the algorithm
outputs a new WDL formula which represent the combination of the input
concepts. First, we study the logical properties of the operator defined by our
algorithm. Second, we collect data on the prototypical representation of
concepts and their combinations and learn WDL formulas from them. Third,
we evaluate our algorithm and the role of the KB by comparing the
algorithm's outputs with the learned WDL formulas.

Guido Caccialupi (Humboldt-Universität zu Berlin, Berlin School of Mind and Brain; Freie Universität Berlin Department of Education and Psychology Neurocomputation and Neuroimaging Unit)

Neural Foundations of Prospective Motor Planning: An fMRI Decoding Study of Grip-Force Anticipation

ABSTRACT.

To investigate neural-correlates of motor-planning, we applied a delayed grip-force paradigm during fMRI. MVPA was used to test what brain-regions code a maintained grip-force-intensity during a WM-delay-period. We found l-SPL, l-PMd and SMA to exhibit parametric-codes of prospective motor-movements, for which successful cross-decoding shows similar activation-patterns during motor-execution and motor-planning.

Guido Cassinadri (Sant'Anna School of Advanced Studies)

ChatGPT Does not Extend Students' Cognition: Applying Virtue Epistemology to a Cognitive Artifact in Educational Settings

ABSTRACT.

Pritchard (2016) proposes to combine the theory of extended cognition (EXT) and virtue responsibilism to avoid cognitive diminishment due to tool-use in education. I argue that EXT is uninformative and that we should combine virtue responsibilism with Fasoli's (2017) taxonomy of cognitive artifacts to interpret the educational uses of ChatGPT.

Guido Cassinadri (Sant'Anna School of Advanced Studies);
Marco Fasoli (University of Roma La Sapienza)

A critique of the Argument From Assessment of Capacities: Extended Cognition, Cognitive Disability and Marginalization

ABSTRACT.
King (2016) and Vold (2018) argued that we should embrace the theory of extended cognition (EXT) instead of the embedded one because the former offers as a less marginalizing picture of cognitive disability in educational settings. In this paper we argue against this type of argument in support of EXT.

Harry Drummond (University of Liverpool)

Artistic Value Judgements are Socially Extended Cognitive Processes

ABSTRACT.

In this paper, I argue that the artworld is a 'cognitive institution', and that artistic value judgements are socially extended cognitive processes, constitutively dependent upon that institution. This carries explanatory purchase regarding the nature of artistic value, its contrast with aesthetic value, artistic expertise, cognitive permeation, and autonomy.

Ilaria Frana (Università degli Studi di Enna "Kore"); Giulia Bettelli (Università degli Studi di Milano - Bicocca); Erika Spagnolo (Università degli Studi di Enna "Kore"); Francesca Panzeri (Università degli Studi di Milano - Bicocca)

Is a hairbrush more feminine than a toothbrush? A new experimental paradigm to test Linguistic Relativism

ABSTRACT.

We tested the hypothesis that grammatical gender might intrude into the conceptualization of objects with a new experimental paradigm based on property judgment (participants rated the prototypicality and masculinity/ femininity of objects). We found no evidence of an influence of language on thought.

Irene Olivero (University of Genoa); Enrico Terrone (UniGe); Nicholas Young (University of Genoa); Luca Marchetti (Università di Genova)
The Artful Mind in a Digital Age

ABSTRACT.
"The Artful Mind in a Digital Age": This panel addresses the relation between aesthetics and various emerging technologies. We discuss how large language models, deep fakes, and virtual reality connect to the creation and experience of various forms of art.

Jacopo Frascaroli (University of Turin)

Predictive Processing and Aesthetics: Grounds and Prospects of a New Interdisciplinary Encounter

ABSTRACT.
What sorts of things do we find aesthetically appealing, and why? In recent years an answer to these age-old philosophical questions has begun to emerge from a new interdisciplinary research programme that brings together cognitive scientists and neuroscientists working within the Predictive Processing (PP) framework on the one hand, and scholars interested in the arts and aesthetics on the other. In this talk, I will discuss the grounds and prospects of this new research programme.

John Michael (University of Milan)
The Moral Sense

ABSTRACT.
Moral psychology has seen a multi-decade attempt to adapt dual-process theories to the ethical domain. We criticise such attempts and develop a novel dual process theory.

Liberty Severs (CFCUL)

From agents to agency: implications for biological and artificial systems

ABSTRACT.
Agential concepts are indeterminate. Despite novel frameworks and approaches to biological agency, a number of recent examples such as 'Xenobots' (Levin & Bongard, 2019) and LLMs such as ChatGPT (Floridi, 2023) suggest there may be many ways of being an agent. I will discuss examples of digital technologies and biotic materials that demonstrate the need to revise our standard conceptions and explanatory accounts of agential phenomena.

Luca Biccheri (ISTC-CNR); Roberta Ferrario (Institute of Cognitive Sciences and Technologies - CNR)
Social context as a ground for non-propositional trust

ABSTRACT.
We propose to directly ground the concept of trust on agents' affordances that we assume to be perceived by other distinct agents once some kinds of social interactions take place. By perceiving affordances, agents are more or less deliberatively inclined to depend on other agents in view of certain goals.

Marco Facchin (University of Antwerp)
Representation hunger, satiated

ABSTRACT.
The "representation hungry" objection is a major obstacle for non-representational approaches to cognition. I examine this objection, arguing that on the standard reading of "representation hungry" cognition, one of the premises of the objection is simply false, and that no reinterpretation of "representation hungry" cognition ameliorates the problem.

Marco Marini (IMT School for Advanced Studies Lucca);
Mattia Negri (Università Telematica Unimarconi); Fabio
Paglieri (ISTC CNR)

**Picking your friends is risky business: Emotional
impacts of social exclusion and player choice in a
Cyberball game with middle school students**

ABSTRACT.
This study investigates the impact of ostracism and player choice in a
Cyberball game with middle school students. Data on 84 preadolescents
revealed that being able to choose teammates exacerbates the impact of
ostracism on self-esteem. This sheds light on the complex relationship
between ostracism, team dynamics, and preadolescent well-being.

Marco Viola (Roma Tre); Marco Marini (IMT Lucca); Alessandro Ansani (Università Roma Tre); Fabio Paglieri (ISTC CNR); Alessandro Demichelis (IMT School for Advanced Studies Lucca); Giovanna Mancini (IMT Lucca)

Real is the new sexy - Sexual visual stimuli are more arousing when believed to be real (photos) than (deep)fake

ABSTRACT.
Spurred by concerns related to deepfake pornography, we have performed two experimental studies to address the following empirical question: does the belief that a picture is a deepfake rather than a genuine photo reduces the sexual arousal it elicits? In both studies, heterosexual subjects were shown 60 pictures of models of the oppostie sex in underwear. In study 1 (N=57) they were asked, for each picture, how much they were aroused and whether they believed it was real or fake. In study 2 (N=108) they were shown the same pictures, but half were presented as artificially generated images while the other half as genuine photos (inverted across subjects). Both when formulated by participants (Study 1) and when manipulated by the epxerimenters (Study 2), reality judgments predict increased sexual arousal, suggesting that the sexual appeal of images goes beyond what the merely aesthetics properties of the image, hinging on beliefs based on their etiology.

Mariusz Urbanski (Adam Mickiewicz University); Natalia Kawecka (Adam Mickiewicz University)

Deductive competence: it is the semantics of transformation that matters

ABSTRACT.
Deductive competence consists in deriving a conclusion on the basis of the premises in accordance with normative criteria provided by the concept of logical entailment. In terms proposed by Stenning and van Lambalgen in "Human Reasoning and Cognitive Science", deductive competence is exhibited in reasoning from an interpretation and not to an interpretation. Thus, what is important for the competence itself is what the subjects do with information: it is the semantics of the transformation that matters, not the semantics of what is transformed. In our study, we address this issue by employing syllogistic tasks, in which the subjects interpret categorical sentences in an unorthodox way (which usually means pragmatically and not logically). We demonstrate that deductive competence in syllogistic reasoning is independent of the choice of one of the two interpretations mentioned.

Martina Bacaro (University of Bologna - Alma Mater Studiorum); Francesco Bianchini (University of Bologna)

Artificial Intelligence as Expected Intelligence: Evidence from Social Robotics

ABSTRACT.
This paper delves into the contemporary issue of measuring intelligence in AI systems, emphasizing the importance of user expectations in assessing AI intelligence. The paper argues for considering both general AI and expected intelligence, showcasing social robotics as a suitable domain. It proposes a theoretical model that views expected intelligence as a nuanced continuum shaped by user knowledge and interaction quality. The paper also highlights the value implications of attributing or detecting expected intelligence.

Matteo Michelini (Eindhoven University of Technology);
Daniele Vilone (ISTC-CNR); Eugenia Polizzi (Institute of
Cognitive Science and technologies, National Research
Council)

**Socially Adaptive Beliefs Drive The Emergence of
Minorities of Contrarians**

ABSTRACT.
We show that the fact that beliefs are socially adaptive (Williams, 2021) is
sufficient to foster the emergence of a minority of individuals holding false
beliefs in contrast with the rest of the community, even under the assumption
that individuals have same cognitive abilities, values, and access to evidence.

Matteo Pirisi (Scuola IMT Alti Studi Lucca); Riccardo Loconte (Scuola IMT Alti Studi Lucca); Chiara Lucifora (University of Bologna); GUSTAVO CEVOLANI (IMT School for Advanced Studies Lucca); Pietro Pietrini (Scuola IMT Alti Studi Lucca)

Using Virtual Reality to Investigate the Weapon-Focus Effect in Eyewitness Testimony within the Italian Legal Framework

ABSTRACT.
The weapon-focus effect (WFE) is a debated phenomenon, compromising testimony and lineup identification reliability. We employ virtual reality to replicate the WFE in an ecologically valid setting developed with reference to the Italian legal framework. The study aims at increasing our understanding of the WFE and of its determinants in realistic scenarios.

Matthew Watts (University of Miami)

Semantic Memory is Not Attributable to A Dedicated Storage System

ABSTRACT.

Philosophy of memory has been predominantly dedicated to theories of episodic memory with far less attention dedicated to the other systems. The study of semantic memory is stunted by assumptions that have received insufficient investigation. This paper argues it is not a product of a dedicated system.

Pawel Lupkowski (Adam Mickiewicz University, Poznan)

Weak points of the Complete Conversation System Claim as an argumentation against the Turing Test

ABSTRACT.
The aim of this talk is to present and discuss the Complete Conversation System Claim as an argumentation against the Turing test. Exemplary arguments of this type are: Block's 'Aunt Bubbles' argument or Searle's Chinese Room. We discuss whether CCSC really affects the original idea of TT as well as the theoretical possibility of such systems (in the light of the results from the logic of questions field)

Rafael Augusto Coelho do Nascimento (University of Edinburgh)

Personal-level Control: conscious states as voices, conscious thought as a conversation.

ABSTRACT.
To fill the gap between automaticity and control, I offer an account of control that does not depend on a subpersonal mechanism: all conscious states, being outputs of subpersonal nonconscious-automatic processes, happen at the personal level, as "voices" that, being both outputs-inputs, enable a "conversation" which is controlled in relation to their level.

Ritesh Bansal (Indian Institute of Technology, Jammu, India)

Distinguishing nudge and measures to enhance usability in the context of products' design and system innovations

ABSTRACT.
Nudging is designing choices to steer people's behavior in a predictable way. While discussing nudges like some default options in the context of choices, people call some product designs and automations as nudges. This work aims to distinguish nudges and usability measure in the context of product designs.

Roberta Ferrario (Institute of Cognitive Sciences and Technologies - CNR)*; Emanuele Bottazzi (Institute of Cognitive Sciences and Technologies - CNR)

Judgements, Definitions and Intrinsic Bias in Large Language Models

ABSTRACT.
Through Wittgenstein's "Investigations" we illustrate an intrinsic bias of Large Language Models (LLMs) at the design level. The current statistical approach cannot account for the normative aspect of rule-following and therefore of communication. This, we believe, is also at the basis of phenomena like "hallucinations" or "confabulations" in LLMs.

Samrawit Ayele (IMT Lucca); Luca Checchetti (IMT Lucca);
Rolf Reber (University of Oslo)

Ingredients for a Good Meme: Cognitive and Emotional Factors of Internet Meme Appreciation

ABSTRACT.
What are the ingredients that make a good internet meme? Every day, millions of people consume internet memes as a part of their digital media diet. Yet, these stimuli have gone largely unnoticed in the cognitive sciences. With two studies, we elucidate the mechanisms behind internet meme appreciation.

Sara Dellantonio (University of Trento); Luigi Pastore
(University of Bari)

**The value of philosophy and its role in the cognitive
sciences**

ABSTRACT.
We challenge the view that philosophy plays only a marginal role in the
cognitive sciences. The cognitive project aimed to overcome fragmentation
within psychology but, so far, continues to be dogged by highly pluralistic
approaches to the mind. Philosophy deals with defining coherent conceptual
frameworks for the sciences and thus is essential to pursue unity.

Selene Arfini (University of Pavia)

The role of values in curiosity: Can we become curious about something even if we don't care?

ABSTRACT.
This article aims to address the question: Do values influence people's curiosity? In response, I will argue that people can end up curious as an embodied response to specific environmental cues that can embed certain values, and, by becoming curious, they can also address and alter what they care about.

Silvia Larghi (University of Milano.Bicocca); Edoardo Datteri
(University of Milano-Bicocca)
Folk-cognitivist stances towards AI systems

ABSTRACT.
In this paper we distinguish between two ways in which users may understand
the "mind" of AI systems, one inspired to folk psychology, the other one
called here folk-cognitivist, and reflect on the most promising methods to
empirically investigate people's mental models of AI systems.

Stefano De Giorgis (University of Bologna); Aldo Gangemi
(University of Bologna)

Leveraging LLMs to generate value knowledge graphs from natural language.

ABSTRACT.

This work aims at leveraging large language models (LLMs) to generate
knowledge graphs giving as input a natural language string, and getting as
output a graph including triples for the triggering of values from Moral
Foundations Theory (MFT), Basic Human Values (BHV), and Moral
Molecules (MoMo) theory

Tatiana Celadin (Università Ca'Foscari di Venezia)*; Nicola Campigotto (University of Trento); Tiziano Distefano (University of Florence); Pietro Guarnieri (University of Pisa); Tommaso Luzzati (University of Pisa)

Behavioral and Cognitive Ecological Economics

ABSTRACT.
We investigate the role of behavioral and cognitive science for understanding and promoting pro-environmental behaviors (PEBs). Different determinants of PEBs are explored, encompassing economic, social and moral preferences, norms and values. Both consequentialist and deontological motives are considered, in the attempt to construct reliable policy recommendations for promoting PEBs.

Tugba Yoldas (University of Alberta)

Artificial Moral Patiency and Case Studies of AI Systems

ABSTRACT.
I claim that an entity has a basic moral status only if it is capable of egocentric representations and motivations that can flexibly and systematically interact with a wide variety of the entity's other representations and motivations. I argue that none of the current AI systems are basic moral patients.

Valentina Petrolini (University of the Basque Country (UPV/ EHU))

Diagnosis and Identity: Disentangling the Relationship

ABSTRACT.
In this talk, I set out to propose a finer-grained account of the complex relationship between diagnostic status and identity, by discussing diagnosis as a process and as a status.

KEYNOTE SPEAKERS

Fabrizio Calzavarini (Università di Torino)

Rethinking Semantic Grounding

ABSTRACT.
A core assumption in the current neurosemantic research is that meanings of concrete words (object nouns, action verbs) are at least partially grounded in modality-specific representations implemented by perceptual and motor cortices. Nevertheless, increasing evidence from the multisensory research suggests that extensive portions of what are traditionally considered modality-specific cortices are in fact supramodal in nature – that is, they can process specific information in multiple sensory modalities and in both normal and sensory-deprived individuals. My central argument in this talk is that the amount of data collected within the supramodal paradigm, although certainly not conclusive, is already robust enough to foster reflections about the role of modality-specificity in the semantic brain and to prompt considerations about the possibility of promoting a property-specific and modality-invariant turn in neurosemantics.

Ute Schmid (Universitaet Bamberg)

Near-miss Explanations to Teach Humans and Machines

ABSTRACT.

In explainable artificial intelligence (XAI), different types of explanations have been proposed -- feature highlighting, concept-based explanations, as well as explanations by prototypes and by contrastive (near miss) examples. In my talk, I will focus on near-miss explanations which are especially helpful to understand decision boundaries of neighbouring classes. I will show relations of near miss explanations to cognitive science research where it has been shown that structural similarity between a given concept and a to be explained concept has a strong impact on understanding and knowledge acquistion. Likewise, in machine learning, negative examples which are near-misses have been shown to be more efficient than random samples to support convergence of a model to the intended concept. I will present an XAI approach to construct contrastive explanations based on near-miss examples and illustrate it in abstract as well as perceptual relational domains.

Murray Smith (Kent University)

Triangulation Revisited: the Case of Empathy

ABSTRACT.

What is the relationship between detailed critical analysis of films, and the background assumptions made by a given theory of film spectatorship? In this presentation, I explore this question via a consideration of the place of empathy in our experience of films, in the light of the method of triangulation—the coordination and integration of phenomenological, psychological, and neuroscientific evidence (as set out in my Cinema, evoluzione, neuroscienze: Un'estetica naturalizzata de film, Dino Audino 2022). Empathy – defined as the capacity to feel with another agent as distinct from feeling for them – is often regarded as central to the special value that artworks, including films, possess. Films possess a particular capacity to allow us to 'imagine from the inside' the experience of others, real and fictional, putting us 'in their shoes.' But what is this capacity, and how is it to be distinguished from related phenomena, such as sympathy, and vicarious experience? In answering this question, I focus on the special, irreducible role of critical analysis. Such analysis is where the rubber of theoretical assumptions meets the road of the material work.

Simone Sulpizio (Università di Milano-Bicocca)

Should I say or should I not – Properties and processing of taboo words

ABSTRACT.

The use of taboo words represents one of the most common and arguably universal linguistic behaviors. Taboo words are used by people of all social extractions, with a relatively high frequency of occurrence. In this talk, by presenting recent behavioral, electromyographic, and neuroimaging data, I will offer a multifaceted picture of taboo words from the perspective of the psychology of language. I will start by offering a semantic characterization of taboo words in several languages across the globe. Then, focusing on Italian, I will describe how taboo words are recognized and processed by the mind/brain. Finally, I will show how taboo information is faced and dealt with by the word recognition system. I will conclude by offering a characterization of the taboo lexicon and, more broadly, of its contribution to understanding how language affects people and how people can control prepotent interfering linguistic information.

Pascale Willemsen (University of Zurich)

Mirror, mirror on the wall: Why blame and praise are not reflections of one another

ABSTRACT.

Philosophers claim that an agent's moral responsibility can come in two variations: A blameworthy agent deserves blame, and a praiseworthy agent deserves praise. A central debate in both moral philosophy and psychology concerns the question of what moral responsibility is, how it is ascribed, and how it is verbally communicated. Surprisingly, while moral blame has been the target of considerable and illuminating philosophical and psychological discussions, little to no attention has been paid to moral praise. This omission in has recently been noticed and criticised from various sides. One reason why praise has been neglected may stem from the philosophical assumption that praise is the positive counterpart of blame. By understanding how blame works, so goes the assumption, we can infer all we (really) need to know about praise. It is unclear whether the symmetry assumption is shared by psychologists. What remains indisputable is their overwhelming focus on blame. In this talk, I argue that blame and praise are not two sides of the same coin but differ with respect to the underlying cognitive and affective processes and also at the linguistic level. I zoom in on some recently detected psychological and linguistic effects.

SYMPOSIA

Exploring Artificial Intelligence with Behavioral and Cognitive Sciences

Ennio Bilancini, Leonardo Boncinelli, Eugenio Vicario
Chatbot Communication Style in SDGs Conversations

Valerio Capraro, Roberto Di Paolo, Veronica Pizziol
Predict-AI-bility of how humans balance self-interest with the interest of others

Alessandra Zappoli, Lidia Casado Ledesma, Christian Tarchi
Collaborating with ChatGPT in source-based writing: An educational psychology perspective

The Artful Mind in a Digital Age

Enrico Terrone, Marcello Frixione, Nick Young
Poetry, Recalcitrante, and GPT-4

Irene Olivero
Artistic Deepfakes: Metaphysics and Semantics

Luca Marchetti
Ontology of Virtual Reality: Beyond the Physical

Exploring Trustworthy AI

R. Calegari
**Breaking the bias: Trustworthy AI towards an inclusive
and equitable AI ecosystem**

L. Oneto
Artificial Intelligence: Lights and Shadows of a Shortcut

G. Primiero
The role of verification in Trustworthy AI

A. Tacchella
Computer-Aided Verification of Neural Networks

Behavioral and Cognitive Ecological Economics

Argumentation, cognition, computation: eternal golden braid or hopeless tangled mess?

Pietro Baroni
Argumentation in computer science and AI

Fabio Paglieri
The cognitive side of argument: it's not just about reasoning!

Serena Villata
Argumentation and NLP

Carlo Proietti
Argumentation and opinion dynamics

Cognitive Robo-Ethics 2023

Ilaria Alfieri, Maria Raffa
Social robots and decision-making. Ethical aspects

Martina Bacaro
Is anthropomorphic language appropriate for robots? A historical debate

Stefano Calboli
Again on the psychological underpinnings of uncanny feelings

Francesca Ervas, Bipin Indurkhya
Ethical aspects of metaphor use in nudging technologies

Book Symposium on Cristiano Castelfranchi "A Theory of Tutelary Relationships"

Cristiano Castelfranchi
Riccardo Viale
Anna M. Borghi