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Abstracts

Non-propositional Beliefs with Representational Content

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According to propositionalism about doxastic attitudes, beliefs or disbeliefs are always propositional. I argue that there are non-propositional beliefs and that such beliefs are non-conceptual representational states. A recent defense of the radical anti-propositionalist view about beliefs has been proposed by Uriah Kriegel (2018) expounding on the views of Franz Brentano. My argument is motivated by quite different considerations, namely that believing relates a cognitive system to an environment (see Sommers, 2009). The focus falls on perceptual beliefs in particular. I will appeal to Seitz and Angel's empirical studies of primal beliefs (2016, 2020, 2023) and argue that such primal beliefs can not be properly described as propositional. As byproducts of perceptive and affective processing that motivate action long before type 2 processing takes place, such beliefs come way closer to non-conceptual representational states.

The structure of my argument proceeds as follows: First, I provide working definitions of *propositional attitude* (inspired by the canonical reading in epistemology) and *conceptual content*. I argue that even if we remain neutral in regards to the question whether non-conceptual content must be labeled conscious or unconscious (as argued by Evans, 1982) a considerable portion of

our beliefs will have such representational content. I proceed by examining the data about primal beliefs (beliefs *that* and beliefs *someone* (cf. 2020)) collected by Seitz and Angel over the last ten years. I argue that we should distinguish cognitive processes responsible for belief forming from those that are activated during belief revision and attitude-application. If we want to think of believing as a mind-world relation, relational aspects of belief require that we get "out of the head" and to examine the interaction between a cognitive system and its environment. In my final remarks, I suggest that the proposed approach can provide a plausible explanation of non-human animal beliefs.

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Multilevel-Grounded Semantics: Representation, Intension and Referentiality in Music

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This talk aims to present the theory of multilevel-grounded semantics, the author's contribution to the topic of musical meaning. Developed from a cognitive linguist's perspective, the approach may relate well to the problem of mental representation as considered by philosophers, since precisely the question of (non-)existence of representations and their exact nature has caused serious divides among linguistic semanticists in the past decades.

If one takes mental representation to be a hypothesized formal integration in the mind/brain by which the organ "translates" between an external event – for example, sensory stimulus – and an introspective experience of this event – for example, my hunch that what I hear must be a Chopin nocturne, this postulated construct will likely function as a domain- and modality-neutral intermediary. Thus, whatever relates "nocturne" the word and "nocturne" the musical stimulus has a nature of its own, unrelated to either musical pitches or linguistic phonemes. At the current state of knowledge, we need to represent such a mental connection functionalistically, as a series of abstract relations, a position defended by formal approaches to linguistic semantics, e.g. many structural and Chomskian generative schools. Conversely, cognitive linguists, who largely affiliate with "embodied" and "enactive" epistemologies in cognitive science, either claim that there is no need for mental representations at all, since our experience is embedded and direct, or endorse a weak sense of representations, claiming that they are not computational, but rather "geared towards the action an organism performs" (Chemero), thus directly linked to the modality in which they manifest, e.g. bodily motion.

Music provides an interesting domain for a "reconciliatory" approach to the problem. On the one hand, the meaning it gen-

erates is obviously much more iconic than in language. Therefore it strongly depends on the structure of the musical stimulus and the underlying activity producing it (such as the performer's movement). On the other, music perception has an equally strong potential to "break away" from the sheer mimesis of corporeal action, becoming much more referential, e.g. in familiar tunes used in internet memes to enhance social satire. Multilevel-grounded semantics turns this apparent duality into a continuum, by instituting a six-level system, where the generation of musical meaning undergoes stages of constraint: 1) perceptual, parsing the stimulus into formal gestalten; (2) cross-modal, motivating schematic correspondences between this formal structure and the listener's embodied experience; (3) affective, ascribing to this embodied appreciation dynamic sensations, e.g. tense and lax parts of the perceptual flow; (4) conceptual, drawing analogies between such schematic and affective appreciation and elementary experiential imagery, resulting in outlines of narratives; (5) culturally rich, checking such a narrative outline against the recipient's cultural knowledge; and (6) individual, adding idiosyncratic recollections from the participant's personal experience.

To illustrate how the proposed system works in practice, in the talk I will give an account of the six levels, provide examples from classical and popular music, and support the theses by some results of my group's experimental studies.

Phenomenal Representations of Moods: An Argument from Expressive Music

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Sometimes, expressive music represents the qualitative character of our inner states. Due its various and well-developed expressive tools, music can be seen as more powerful tool for articulating the phenomenal character of our inner states than language (Bakalova 2021). In my paper, I want to show that expression of moods through music sheds unconventional light on the debate between representationalists and non-representationalists about *qualia*. I will construct an argument from expressive music, showing that *qualia* can be treated both as intrinsic non-intentional features of our experiences and can function as representations.

Here is the main idea. Being calm, being cheerful, or being anxious are examples of moods that do not mandate intentional content. For example, I could be anxious, because I drank too much coffee, not because there is something I am anxious about. Accordingly, there are qualia (at least some) that do not represent anything. But even such subjective non-intentional qualia can be recreated in artistic mediums and transformed into representations. This is motivated by our interest in expressing some of our non-intentional states. Presumably, being in a carefree, romantic, or calm mood can be a value in itself. There are prolific examples of this phenomenon in the classical music. One such example is Prokofiev's No. 1 "Classical" Symphony, which expresses cheerfulness that is not about anything in particular.

How do composers represent the phenomenal character of our states in general, and of such moods in particular? They create a musical passage that has similar phenomenal characteristics to the expressed state. The recreated *qualia* represent the original qualia by means of satisfying certain adequacy conditions in a mapping relation. What is being represented in such cases is pure phenomenal non-intentional content: the phenomenal content of

a cheerful mood, for instance. It seems to be made of nothing but a bunch of simpler phenomenal characteristics, such as the particular amount of intensity, dynamism and valence, typical of cheerfulness (see the Multi-Dimensional Mapping Hypothesis in Green (2007, Ch.7) and in Green (forthcoming)). Sometimes (contra Raftopoulos and Muller 2006), the phenomenal content of our experience can be conceptually encoded in a musical passage, based on the composer's use of phenomenal concepts.

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Making Progress on Neural Representation: Moving from Evidence to Content

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Neuroscientists often use representational language to describe the brain's functioning. But what is a neural representation? Recent progress has been made on this question by instead asking how do neuroscientists support claims of representation? This investigation has lead to the outline of 4 desiderata for evidence for representations of environmental features (Pohl et al. 2024). For a neural response to be evidence for a representation of a feature,

it must be sensitive, specific, and invariant to the feature and also the system must use that response. Intuitively, when some response is sensitive to some feature, the neural response carries a lot of information about the variation in the feature. Intuitively, when some response is specific to some feature, the variation in the response carries a lot of information about the feature. Intuitively, when some response is invariant to some feature, variability in the response does not track variability in some other feature. Finally, intuitively, a response represents a feature when the system uses that response as a representation of the feature, in the sense of the response carrying information about the behavior, especially when the information is conditionalized on the feature.

In this talk, I will briefly present these desiderata and then explore their limits. I will compare the constraints on evidence for representation to classic cases that show why an information-theoretic approach to representation is insufficient. While these criteria might capture how neuroscientists can gather evidence of representations, they fall woefully short as a theory of representation proper. I then discuss what might be added to these constraints to arrive at an information-theoretic theory of representation by looking at what counts as evidence for neural representation in remembered, fantastical, and similar contexts (in short, counterfactual contexts). In counterfactual contexts, variability in the neural response precisely cannot be explained by variability in environmental features. I argue for two necessary criteria for these cases of representation. First, the neural response must have excess variability beyond that of its naturally noisy functioning. Second, the neural response must change when a description of task demands require changes in contents without any change in environmental features. The first condition is an information gap condition, opening up a possible representational function. The second condition helps to narrow down the content of a representation by manipulating the tasks facing the organism.

The evidence for neural representation in counterfactual contexts presents a challenge for realist theories of neural represen-

tation. If evidence for counterfactual representation ineliminably refers to task demands, then counterfactual neural representation takes on a pragmatic character. I assess this challenge and survey some possible responses for the realist.

Are mental images picture-like?

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Mental images are often said to be "picture-like". This suggests that there are similarities between mental images and physical pictures outside the mind. One way to construe those similarities is to say that mental images resemble what they depict, in the same way as external pictures do. I call this the resemblance theory of mental images.

In this presentation, I devote close study to this type of accounts and argue that applying this definition of depiction to mental images raises two important objections, which I coin "the sufficiency objection" and "the homogeneity objection". The first objection is not specific to mental images, but applies to all definitions that make resemblance a sufficient condition for depiction. It goes as follows: since you can have resemblance, without having depiction, resemblance is not sufficient to have depiction. This line of argument is rooted in Nelson Goodman's work on depictive representations (Goodman, 1976).

I call the second objection "homogeneity objection" because it targets a fundamental similarity that must exist in order for resemblance to be possible. As resemblance is most often defined as consisting in a similarity of spatial structure, the fundamental requirement is that both the picture and what it represents possess the same type of properties, that is spatial properties. This is uncontentious when we talk about paintings, photographs, drawings, etc. However, it becomes problematic when referring to

mental states. This is because it is by no means an obvious truth that mental states have physical and spatial properties.

To answer the second objection, the strategy I will focus on in this presentation consists in changing our definition of depiction, so that it doesn't entail physical/spatial similarities. There is one interesting candidate to consider as a plausible replacement for the resemblance theory of pictures, namely the recognitional theory. More precisely, an object O is a picture of F if it activates processes similar to the visual recognitional processes used by subjects when perceiving F itself. The question is then: how do we apply it to mental images? The answer is that mental images are representations that activate the same visual perceptual and recognitional processes as seeing what they represent.

More specifically, the two stream hypothesis in neuroscience tells us that the ventral stream is responsible for object recognition. That is, the temporal lobe is responsible for our visual recognition processes. Several studies (see Dijkstra, Bosch and van Gerven, 2019) have shown that the temporal lobe is activated during mental imagery. Therefore, the recognitional theory could be applied to mental images if we find the same neural activation in the temporal lobe when imagining and perceiving the same object. I review several experiments showing that perceiving an object and visually imagining that object create strikingly similar activation in parts of the occipito-temporal stream.

It is thus possible to apply the recognitional theory to mental images, which is a very promising start to overcome the objections previously described.

Representing the Logically Impossible

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Can natural language represent logically impossible circumstances? Can there be logically impossible contents? Much recent work in the philosophy of logic meant to account for hyperintensional phenomena in natural language assumes that the answer to both of these questions is "yes." Building on the original program of possible worlds semantics for natural language, recent proponents of impossible worlds argue that in order to draw semantic distinctions between logically equivalent contents or provide an adequate semantics for counter-possible conditionals, for example, we ought to admit logically impossible contents. But this assumption should seem more puzzling. I want to argue that, on closer inspection, the very idea of logically impossible contents proves unintelligible.

The argument for this position appeals to a necessary condition for sentential meaning, which is independently plausible. Assuming that each term in a language L can be associated with its own set of true meaning-constituting sentences, one can argue in the following way. If a sentence S in L has logically impossible content, then what S says must still be logically compossible with what the meaning-constituting sentences for the constituent terms of S say. But one cannot in principle define a compossibility relation for logically impossible and possible contents. Only logically possible contents can stand in a compossibility relation. The very idea of logically impossible contents is incoherent or unintelligible.

Such a conclusion, if defensible, should carry far-reaching implications about how we should think about the relationship between logic and linguistic representation. In particular, the rejection of logically impossible contents can lend support to an old view about the nature of logic, traceable to Kant and Wittgenstein, according to which there is a constitutive connection between logical form and propositional representation. Logical form and logical laws are necessary conditions for a given vehicle of rep-

resentation to possess propositional content. Such a view predicts that there cannot be logically impossible contents. There can be no illogical representations.

Where Representation Begins: From Perceptual Constancies to Memory

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This paper is concerned with the question of where representation begins, i.e., tries to answer the question of which are the simplest organisms that possess representations. To do so I'll presuppose an explanatory conception of representations, by which ascriptions of representational states are legitimate if and only if they can play a role in genuine representational explanations.

I will first introduce an interesting answer recently put forward by Arnellos and Moreno (2021), who claims that some of the simplest organisms with representational states are box jellyfish (Cubozoa). According to them, box jellyfish qualify as organisms with representational states because their visual system employs a size constancy mechanism (and because some other conditions are also fulfilled, such as internally recording absent things), and this is supposed to distinguish them from "inflexible" organisms like hydrozoans which are categorized as non-representational (Arnellos & Moreno 2021: 10).

The main aim of this paper is to argue against this proposal, that constancy mechanisms are not sufficient for flexible behavior (neither by themselves nor together with the additional conditions formulated by Arnellos and Moreno). To this purpose, I will show why it takes more than just constancy mechanisms to exhibit the behavioral flexibility that is characteristic of representational organisms. The constancy mechanism that the box jellyfish makes use of enables it to react in the same way to retinal stimuli of very different types, but it does not enable it to react differently to

retinal stimuli of one and the same type. However, a behavior is considered flexible when it is not controlled by the proximal stimulus, i.e., when the organism can behave in different ways under the same stimulus conditions. So an organism needs additional elements to exhibit flexible behavior.

Finally, I will defend the tentative proposal that the simplest representational organism must have memory capacities, that is, I will argue that memory capacities are what gives rise to behavioral flexibility. In other words, memory will be postulated as the minimum necessary condition that an organism must fulfill in order to possess representations.

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Representational Specificity and the Uses of Representations

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In the general discussion in recent philosophy of science on 'what turns something into a scientific representation of something else' (Frigg & Nguyen, 2021), the specificity of a representation, conceived as the measure of how good is the representation for discriminating the object that it represents from other objects, is rarely seen as a good candidate for a necessary or a sufficient condition that a (good) scientific representation must satisfy.

At the same time, in various fields of science such as psycholinguistics and cognitive psychology (see e.g. Pisoni & Levi, 2012) the specificity of representations has been extensively discussed. A recent empirical study of the uses of the concept of representation

in the neural and the psychological sciences (Favela & Machery, 2023) reveals that for psychologists at least the specificity of a pattern of brain activation in respect to the stimuli that evoke it is important for the recognition of this pattern as a representation of the stimuli that evoked it.

In my talk I will discuss the reasons for neglect of representational specificity in some cases and for its appreciation in other cases. At the end of the discussion I'll try to defend the following answer to the question 'Why the value assigned to representational specificity varies across the different cases?' The value assigned to representational specificity in a particular case depends on the intended use of the representation in this case. It is well known that scientific representations (theories, equations, graphs, theoretical and material models, diagrams and others) are used to describe, explain, predict, infer, identify etc. the objects and phenomena which they refer to. The representational specificity is important for the performance of some but not all of these functions. The latter will be illustrated by several examples from different scientific disciplines. The implications of the suggested answer for the ongoing discussions on similarity vs. non-similarity conceptions of scientific representations will be discussed.

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Content in Cognitive Science: Maximal Mutual Information

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Content, as it features in the explanations of cognitive science, is determined by a relation between environmental items and internal representational states. What is the nature of this relation? Some recent authors (e.g. Shea, Martinez) spell out the relation in terms of correlational information. In this paper, I argue that a much stronger statistical measure, maximal mutual information, is implicit in cognitive science. I demonstrate how it is assumed by some common methods for determining representational content: dimensionality reduction, information theoretic measures, and the measurement of a cell's response profile to stimuli. I spend the remainder of the paper spelling out how this measure provides us with a way of discovering the information about the environment which is *available* to the system. Availability of information allows us to understand representation from the perspective of the system itself. It allows us to know what *the organism* picks out in the world, not just what we can pick out by knowing the states of the organism. This suggests a very different view of the role of content in explanations than provided by standard etiological teleosemantic theories; rather than understand content in terms of the external item which is adaptive for the organism, we understand content in terms of the aspect of the world that the organism itself can decode. This has multiple benefits; differences in available information, hence content, can explain differences between human and non-human animal cognitive capacities. Differences in internal neural connectivity determines differential availability of information, allowing us a deeper understanding of differences in representational content between 'neurotypical' and 'neurodiverse' individuals. Content is not in the head, but what goes in on the head is central to understanding our relation to the world.

The Untenable Status Quo: The Concept of Representation in the Neural and Psychological Sciences

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The concept of representation is commonly treated as indispensable to research on brains, behavior, and cognition. Nevertheless, systematic evidence about the ways the concept is applied remains scarce. In this tallk, I present the results of an experiment aimed at elucidating what researchers mean by "representation." The results suggest that neuroscientists exhibit uncertainty about what sorts of brain activity involve representations or not; they also prefer non-representational, causal characterizations of the brain's response to stimuli. I then explore the consequences of these findings for reforming or eliminating the concept of representation.

Perceiving Maps

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In philosophy, theories of the contents of maps have mostly focused on providing semantic models by borrowing formal tools from natural language semantics (e.g., Pratt 1993, Casati and Varzi 1999, Rescorla 2009, Greenberg 2024). Perception has been at best ignored, and at worst ruled out (e.g., Gombrich 1975, Casati 2024), as a means to access the contents of maps. For example, Gombrich (1975: 127) claims that maps, unlike photographs and mirrors, represent objects without providing information about their visual appearance. Casati (2024) also views the interpretation of maps as fundamentally different from that of pictures: while pictures elicit visual recognition of depicted objects, maps would represent

through the activation of non-visual, spatial mental representations. Casati motivates this claim by referring to the capacity of maps to represent spatial relationships between objects in a very abstract way: a map of a park, for example, can represent trees as points, thereby providing information about distance without relying on the perceptual acquaintance with trees.

In contrast, this paper develops a view that takes perception to have a necessary role in the grasping of the content of maps. In this sense, our claim is that the experience of maps is closer to the experience of pictures than what is usually thought. The experience elicited by pictures is standardly taken to be a composite perceptual experience, in which the 'perception' of the depicted scene is generated by and experienced along the perception of the marked surface (Gombrich 1960, Hopkins 1998, Lopes 1996, Nanay 2011, Wollheim 1980). We argue that the contents of maps are accessed in a similar way.

Paradigmatic bidimensional maps are similar to pictures in that their marked surfaces trigger a visual perceptual experience. The scene experienced is one that places the viewpoint of the experiencer at an indefinite point faraway above the territory (like satellite images). In a bidimensional map of a city, for example, we perceive squares, streets and buildings as seen from above. This scene is typically flattened out, that is, the content of the map is silent on volumetric properties (e.g., the city map only represents 2D sections of buildings). This characteristic is shared with abstract pictures which, as Newall (2011: 185) notes, "frustrate volumetric form recognition", as well as with sketchy pictures like stick figures drawings (Hopkins 1998: 122-128).

Even though maps can abstract from many depictive properties, visual perception is always involved (even if minimally so) in the interpretation of the content. Against Casati (2024), we therefore take it that in the map of the park mentioned above the viewer sees 'from above' points placed at a certain distance from one another in a territory.

An important advantage of our account over non-perceptual

accounts is that it easily explains the representation of occluded objects in maps (e.g., bridges appear to be located over rivers), whereas Casati (2024), for example, denies that maps represent occlusion. Another advantage is that our account easily extends over otherparadigmatic types of maps (e.g., three-dimensional globes, which can be analyzed as sculptures, i.e., three dimensional pictures, Hopkins 2020).

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Visual paradoxes and Mental Imagery: Reducing Perceptual Rules

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Visual paradoxes (e.g., the Penrose triangle – Penrose and Penrose 1958, Leddington forthcoming) are optical illusions of interest within perceptual studies. According to Gregory (1990, 1997) they are seemingly contradictory representations resulting from the visual system following usually acceptable perceptual rules. The literature on visual paradoxes has so far privileged illusions of the imagistic kind, i.e. realised in the form of two-dimensional pictures (e.g., Penrose 1991, Mortensen 2010, Macpherson 2010, Kulpa 1982, Huffman 1971). However, some have acknowledged other interesting ways of realising visual paradoxes: three-dimensional structures that give rise to illusory effects parallel to the ones produced by 2-D paradoxical pictures (e.g., Varzi and Casati 2020).

The aim of my presentation is two-fold. As a first step, I aim at explicating a taxonomy that differentiates between three types of visual paradoxes: (i) Impossible figures; (ii) Impossible objects; (iii) Impossible interactive objects (Khoi and Kovesi 1999). I will argue that such taxonomy is relevant in so far as there is one account of the phenomenon of visual paradoxes which applies to (ii) (and arguably iii) but not to (i). The second aim of the talk is to introduce an explanation of (ii) based on a specific kind of mental imagery, namely *amodal completion triggered by self-occlusion* (Nanay 2023). I aim to show how this account of the phenomenon

supersedes extant approaches to visual paradoxes, implementing their positive features and not their drawbacks.

My mental imagery-based approach to impossible objects works under the assumption that amodal completion (AC) is constrained by (at least) two sets of 'perceptual rules': 1) picture-interpretation conventions; 2) geometrical-spatial knowledge. The account offers a way to distinguish between three possible outcomes of the process of perception of impossible objects. Such a perceptual experience can result in (a) illusion, when AC is constrained by 1 (the representation is successful but erroneous, i.e., it has a determinate outcome but this misattributes the properties to the wrong object); (b) veridical perception, when AC is constrained by 2 (the representation is successful and correct); (b) paradox, when AC is constrained by 1 *and* 2 (the representation fails, i.e., is not produced as a clash between assumptions occurs).

The overall reasoning highlights a bidirectional strain in the relationship between mental imagery and impossible objects. On the one hand, acknowledging the role of amodal completion triggered by self-occlusion within the perception of impossible objects offers a new and highly explanatory account of the paradoxical/illusory nature of (ii). On the other hand, the present account highlights some of the top-down influences at play on amodal completion and their mutual interaction in the case of the elaboration of a specific category of perceptual inputs.

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Can Images Represent Particulars?

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Intuitively, some images represent particulars. For example, a photograph of the St. Alexander Nevsky Cathedral does more than merely represent general properties such as shape and color. It also represents the particular cathedral located in Sofia to which those properties belong. However, many philosophers have argued that images, both mental and external, do not have singular content and thus cannot represent particulars. Instead, images have purely general content, and can only refer to particulars with the help of distinct, non-imagistic representations (Fodor 1975, Kung

2010, Langland-Hassan 2015, 2020, Matthen 2014, Noordhof 2002, Peacocke 1985, Tooming 2018, Tye 1991, Zeimbekis 2010).

Recently, Langland-Hassan (2023) has offered a comprehensive defense of this view, synthesizing many of the considerations that have motivated other theorists in the literature. He offers two arguments. The argument from multiple use relies on the principle that the same type of image can be used to refer to different particulars. Langland-Hassan argues that if the same type of image can be used to represent different particulars, then those particulars cannot be part of the images' content. The argument from the parts principle relies on the principle that parts of an image represent parts of what the whole image represents. Langland-Hassan argues that this widely endorsed principle of compositionality limits them to expressing general content. Both arguments aim to establish that the very nature of images precludes them from representing particulars.

I will argue that these arguments fail. My objections rely on a distinction between content grounded in intrinsic features and content grounded in extrinsic features. While it is true that intrinsically identical images can be used to represent distinct particulars, it is not true that extrinsically identical images can be used to represent distinct particulars. And while it is true that images typically refer to particulars in virtue of their extrinsic features, the same is true of non-imagistic representations. Thus, Langland-Hassan's arguments equivocate between different ways of individuating images and threaten to overgeneralize to non-imagistic representations.

I propose a different model of imagistic content according to which an image's general content is grounded in its intrinsic features and its singular content is grounded in extrinsic features. On this view, the intrinsic content of an image is a structured array of properties, and the extrinsic content of an image is a particular scene to which that structured array of properties is attributed. Importantly, the relevant extrinsic features may but need not include the image's relationships to distinct non-imagistic

representations. Extrinsic features that are not essentially representational, such as causal relations, can also ground imagistic reference to particulars.

The Translucent Mind

Bence Nanay
University of Antwerp

Some of our mental states are translucent: we can't fully elaborate some parts of their content, by which I mean we can't make some of the represented properties more determinate. More generally, mental states come on a spectrum when it comes to whether and how much we can elaborate some parts of their content. I argue that translucency is an overlooked but extremely important feature of mental states and I give case studies of this importance in the case of translucent beliefs, translucent emotions, translucent memories and translucent desires.

Ever-changing memories – the functional anatomy of episodic memory and its time-dependant transformation

Bogomil Peshev
Institute of Neurobiology (BAS)

Memories for events and the spatiotemporal context in which they transpire are commonly referred to as episodic memories. The representations that compose episodic memories have complex associative nature, binding together the information about space, objects located in the physical environment, the sequence of events within an episode and the social interactions of the individual. In the brains of mammalian species a structure known as the hippocampus plays a pivotal role in the formation and retrieval of

episodic memories. Research in the fields of cognitive, behavioral and systems neuroscience has demonstrated the presence of a specific functional gradient within the hippocampus, with the posterior parts (dorsal in laboratory rodents) storing the event-specific detailed representations and the anterior parts of the structure (ventral in laboratory rodents) responsible for the storage of the event-specific gist representations for the central information of an experience. With the passage of time our memories tend to become less detailed and more generic, which corresponds with the changes in the activity of the hippocampus along its posterior-anterior axis. Moreover, recent theoretical models suggest that prior knowledge is one of the factors that governs the formation of new episodic memories and their subsequent transformation. Undergoing many similar experiences leads to the creation of a memory schema – an event-general associative representations containing the information about stimuli common to many identical events. The formation of schemas depends on the medial prefrontal cortex and its functional interactions with the gist representations in the anterior hippocampus. Thus, the dynamics of the processes responsible for memory formation, time-dependent reorganization and the changes in the quality of memories for events may depend on the level of congruence between the recent experience and the previously established schema.

By describing the biological conditions that determine the transformation of episodic memories, my presentation aims to establish episodic memory as a flexible neurocognitive system, indispensable for the adaptability of the individual in an ever-changing environment. In order to fulfill these objectives, I intend to carefully summarize the available scientific knowledge regarding different forms of memory representations, their anatomical distribution in the brain and their functional interactions.

Emotions and Embodied Meaning

Jesse J. Prinz
CUNY Graduate Center

According to traditional theories, emotions have two kinds of intentional object. The formal object of an emotion is a relational theme, such as danger or loss, and the particular object is the the specific object or event that arouses the emotion. On cognitive theories of emotion, formal objects are generally presumed to be represented descriptively; each emotion is a judgment containing concepts that specific the theme in question. On this model, particular objects can be explained on the model of predication. Opponents of cognitive theories are forced to reject this picture, given the strong empirical evidence for embodied theories. That raises difficult questions about how emotions represent. One approach is to apply informational or teleo-semantics to account for formal objects: roughly, an emotion represents what it was set up to be set off by. This leaves unanswered questions about particular objects, and it also faces other challenges. Among these, the informationl/teleo approach divorces emotional meaning from embodiment. This fails to respect the phenomenology of affective life, and implies an untenable objectivism about affective content. Here, an alternative is presented, building on recent enactive approaches. Enactivists argue that embodiment plays an essential role in how emotions "make meaning". Details of these theories are often thin, and little has been said about the distinction between formal and particular objects. This presentation motivates the enactive approach to emotional meaning, and suggests some steps towards a more complete theory.

The Social Character of Propositional Content

Olivia Sultanescu
Concordia University

What is it for a thought to have content? It is often assumed that the answer to this question can be provided by drawing exclusively on features of the thinker herself, such as her conscious experiences, her dispositions or capacities, or the causal influence she receives from her environment. In this talk, I examine a distinctive characteristic of propositional content, namely, its generality, and show how difficult it is to account for this characteristic with the materials provided by the individual's finite constitution. A different approach is called for: one that brings to the fore the social character of the mind.

Decoding Communicative Intentions

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Institute of Philosophy and Sociology (BAS)

Traditionally linguistic representations are explained in terms of mental representation. In mentalist theories meaning of expressions in natural languages is described in terms of speaker meaning and intention. The work of Paul Grice is associated with the analysis of meaning in terms of communicative intentions. One of the aims of my talk would be to explicate the meaning behind the term *communicative intention*. My proposal corresponds to the inferentialist position: successful linguistic communication rests on grasping the speaker's intention by processing the pragmatic meaning of the utterance. In many cases where the intended meaning of a sentence differs from the linguistic meaning, the listener can grasp that meaning and therefore understand the communicative intention with little cognitive effort. The Gricean approach considers grasping the speakers' intention natural to people of the

same communicational community who share similar experiences, linguistic intuitions, and other contextual factors. The Defaultness hypothesis and the Graded salience hypothesis explain the priority with which native speakers process default meanings (regardless of the context) and more salient expressions (in a given context) and the literal meaning is processed at a later stage if the initial interpretation does not match the context of the speech situation. This type of interpretation is still considered a pragmatic interpretation, because neither default meanings (as in the case of negative sarcasm), nor salient meanings, are not necessarily a literal interpretation, therefore the speaker's meaning is not directly inferred from the semantic meaning of the utterance. My main goal is to show that instances of default or salient expressions are a case of representation of the speaker's beliefs and Gricean implicatures are an example of representation of the speaker's intentions. The produced effect with certain speech acts (specifically in the case of conversational implicature) is a representation not only of the listener's beliefs but also of the listeners because deriving the speaker's intention from an implicature requires listeners' reflection on the motives behind the utterance.

What do we know about the representational state of hypnosis and other trances?

Audrey Vanhaudenhuyse

University of Liège

In my presentation, I propose to discuss about how non-ordinary states of consciousness such a as hypnosis combined or not with virtual reality and trances inherited from shamanic practices are able to modify our feeling and sensations. I will focus on what we know regarding brain modulations related to these modifications (i.e., pain perception, anxiety, dissociation, etc.), as well as how clinical researches are helpful to better understand how these

trance states can be concretely useful for patients to improve their daily life.

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