Conference abstracts

(Conscious and Unconscious Mind: Commonalities and Differences, Prague, June 30 – July 1, 2022)

Kathleen Akins (Simon Fraser University), **Concepts First, 'Qualia' Later**

This focus of this talk will be on one section of a paper on color development recently written in honour of David Rosenthal. It is now commonly accepted that human vision uses both chromatic and luminance contrast information in a multitude of processes that discern properties of the visual world. We also know from the study of cerebral achromatopsics—people who have lost colour vision as the result of cerebral damage—that these chromatic processes contribute to the phenomenology of vision. That is, although a cerebral achromatopsic cannot see the colors of the world as such, nonetheless they can see that one coloured area is different than the colored area which surrounds it—and that this difference cannot be accounted for in terms of seeing that area as being lighter or darker than its surround. To the achromatopsic, the coloured area looks 'different' than its background, but not different in any identifiable way. Infants and toddlers up until roughly the age of three seem to be much the same situation, only 'better'. Three-year-olds can do many things with colour: they can sort and match cards by color, identify the functions of objects on the basis of their colors, and even recite color names. Yet even a toddler who knows the names of countless dinosaurs, or types of heavy industrial equipment or the names of all the toddlers in their daycare class, is unlikely to use color names appropriately. Infants and toddlers make abundant use of chromatic information prior to understanding how to apply color names to coloured surfaces (or any other colored media). Our psychophysical data suggests that toddlers are 'super' cerebral achromatopsics albeit in diminutive form. They make abundant use of chromatic information but they don't seem to see the colours.

I will argue, in a roundabout way, that the obvious answer—color qualia—is wrong. Instead, although neither the toddler nor the cerebral achromatopsic can see the colours, their situations are the mirror image of one another. The cerebral achromatopsic is missing a sizeable number of visual functions—both chromatic and luminance—that are required for seeing surface (and other) color. Still, the cerebral achromatopsic knows what they are missing; having seen the colors 'before', they have the concept of surface color. But they are missing the chromatic and luminance processes that make seeing the colours possible. Conversely, the toddler has already gained most of the requisite visual machinery for color perception. The toddler lacks the concept of surface

color and, as a result, the ability to use the necessary visual capacities already present in the toddler's visual economy. This answer turns the standard philosophical understanding of color on its head. Vision does not rest upon color qualia qua 'The Given' prior to visual development. Seeing the colors is not even a requisite property of human visual phenomenology. Instead, it is an intentional property of visual perception, hard won after years of visual development, that begins with an 'ah ha!' moment of conceptual acquisition and which will continue to gain traction the child learns more and more about the folk physics of light and the visual world. Concepts first, 'qualia' later.

Brice Bantegnie (Czech Academy of Sciences), **How to be a Higher-Order Theorist and a Skeptic about Unconscious Perception**

It is common belief that skepticism about unconscious perception sits uneasily with the adoption of an (Actualist) Higher-Order theory of consciousness. To illustrate, it has been said, among other things, that "The main motivation behind higher-order theories of consciousness […] derives from the belief that all (or at least most) mental-state types admit of both conscious and unconscious varieties." (Carruthers and Gennaro, 2020) and also that "actualist higher-order thought theories of consciousness […] threaten a trivial positive answer concerning the existence of unconscious perception". In this contribution, I show that this view is mistaken. Skepticism about unconscious perception doesn't sit uneasily with the adoption of an (Actualist) Higher-Order theory of consciousness. What a Higher-Order theory provides is a conceptual elucidation of what it is to be in a conscious state. It follows from this, first, that even if it turns out that perceptual states aren't or cannot be unconscious, the theory wouldn't lack motivation and, second, that a Higher-Order theory makes no prediction about the existence of unconscious perceptual states or lack thereof. But that is not all. A Higher-Order Theorist is actually in a very good position to rise to the challenge recently raised by Berger and Mylopoulos of explaining why "perceptual states are unique in the mind insofar as they [do not] occur unconsciously" (Berger and Mylopoulos, 2021).

Berit Brogaard (University of Miami), and **Thomas Alrik Sørensen** (Aalborg University), **Precision, Attentional Gain, and Degrees of Consciousness**

Whether visual consciousness is a graded or all-or-none phenomenon has been the subject of fierce debate. Attentional blink experiments originally conducted to examine this question appeared to show that when participants were asked to identify two targets in a rapid serial presentation of target and distractor stimuli, the identification of the second target (T2) was impaired when it

followed the first target (T1) within a 200-500 ms interval compared to longer time periods. A prominent explanation of this finding is that the allocation of attentional resources to T1 interferes with the attentional resources needed to encode T2 in visual short-term memory (VSTM), making T2 inaccessible to consciousness. However, these findings have since then been challenged. More recent attentional blink experiments – using different experimental designs and stimuli – suggest that encoding and accessibility of visual information is a matter of degree.

Here, we argue that suboptimal encoding of visual information in VSTM is only one factor that can result in reduced visual consciousness. We identify three sources of reduced visual consciousness: suboptimal visual input, suboptimal cognitive sorting mechanisms, and suboptimal encoding of visual information in VSTM. We then argue that our proposed model is explanatorily superior to a previously proposed multifactor model. Finally, we tackle the question of what it means to say – given a multifactor model of graded awareness – that consciousness comes in degrees.

Sam Coleman (University of Hertfordshire), **Emotions, (Un)Consciousness, and Mental Qualities: Some Surprisingly Self-Defeating Feeling Theories of Emotions, and How to Construct a Better Feeling Theory**

I consider two prominent recent feeling theories of emotions, due to Prinz and Kriegel, argue against them, and propose a novel alternative feeling theory. The problem for these theories is that emotions can be unconscious. Feeling theories foreground conscious emotions' qualitative character as crucial to them. But such theories also deny that unconscious emotions feature qualitative character. This combination of claims leads them into trouble. If emotions exist and function without emotional phenomenology, as the theories imply, just what purpose does it serve? I argue that on these views emotional phenomenology is at best an inert registering of the subject's true emotional state. Emotions themselves, surprisingly, turn out not to be feelings at all. So these feeling theories of emotions are ultimately self-defeating. I argue instead for this view: Emotional qualitative character is, simply, essential to emotions. Therefore, unconscious emotions possess unconscious qualitative character—in Rosenthal's terminology, unconscious mental qualities.

Sascha Benjamin Fink (Otto von Guericke University Magdeburg) and **Lukas Kob** (Otto von Guericke University Magdeburg), **Neurophenomenal Structuralism and the Unconscious/Conscious Distinction**

In recent years, several authors proposed a mapping from the structure of experience to neural activation structure as a suitable avenue for progress in the neuroscience of consciousness (Fink et al 2021; Malach 2021; Tsuchiya and Saigo 2021). This, however, raises the question whether such structural features of neural firing can also account for the difference between conscious and unconscious processing? Here, we take the distinction between general NCCs (gNCCs) and content NCCs (NCCcs) from Marvan and Polák (2020) and apply it to varieties of neurophenomenal structuralism. Taking activation geometry into consideration, we argue that it is implausible that there is a structural difference between conscious and unconscious states of NCCcs. Structuralism is then mainly a theory of perceptual structure, in line with Rosenthal's quality space theory (Rosenthal 2015). In itself, it does not provide a sufficiency condition for which adequately structured neural states is conscious. However, as Fink et al. (2021) argue, it does provide a necessity constraint on NCC candidates. This suggests that, in its current formulations, structuralism is likely a two-factor theory, in which a second process – a gNCC – turns a content conscious. We also investigate whether structuralism can help to find this second factor, the gNCC. Here, we argue that an overarching structuralism is a promising position, according to which structural features of generic consciousness (e.g., unity, ego-centricity and perspectivalness) impose structural constraints on gNCCs as well. We illustrate this point with some implications for empirical research.

Juraj Hvorecký (Czech Academy of Sciences), **Troubles with the Orthogonality Thesis**

Debates on the content of conscious and unconscious states are often resting on the "orthogonality thesis" (Schlicht 2012, Vosgerau et al. 2008) that assumes the sameness of content on both sides of the divide. While the thesis recently came under fire (Skryzpulec 2021), his counterargument relies on relatively strong assumptions about color vision. We offer simpler and stronger arguments against orthogonality and draw some further conclusions about its position within consciousness research. Our arguments are two-fold: firstly, we introduce several examples of multisensory perception for which there is no evidence of their unconscious presence. One such a case is relatively well-known phenomenon of the McGurk effect, for which there is no unconscious counterpart (Palmer and Ramsey 2012). Secondly, and more importantly, when orthogonality thesis is combined with those theories of consciousness that require conscious content being ascended from unconsciousness (Rosenthal, Marvan and Polak), one arrives at a conclusion that is difficult to defend. If there are conscious states that are purely outcomes of other conscious states (cases

of conscious inference, top-down attention, perceptual adaptation, conceptualization of content), then it is not clear what role various postulated mechanisms of ascend to consciousness really serve. The defender of such ascend faces the following dilemma: Either every content is originally unconscious, including the one that seems to be resulting out of conscious process. In that case, epiphenomenalism looms really close. Alternatively, theories of ascend to consciousness only explain some conscious content and not all. Both horns of the dilemma call for further foundational work on the relation between conscious and unconscious content.

Azenet Lopez (Ludwig Maximilians University, Munich), **If Attention is Graded, Can Consciousness be All-or-Nothing?**

Recent research converges on the idea that attention comes in degrees. To many, this view suggests that consciousness comes in degrees as well. But on the other hand, research supporting thresholds for conscious processing seems to favor the opposite view, namely, that consciousness is discrete and all-or-nothing. This paper presents a way to reconcile these findings with graded views of attention and consciousness. I propose that degrees of attention constitute degrees of informational enhancement, and that there are at least two thresholds of enhancement that are crucial for distinguishing conscious from unconscious processing of information. This proposal might throw new light on what happens to missed targets in the attentional blink, a paradigm often used to investigate whether consciousness is graded or discrete. It can also contribute to deepen our understanding of the commonalities and differences between conscious and unconscious processing.

Tomáš Marvan (Czech Academy of Sciences), **The Brain-Based Argument for Unconscious Qualities**

Sensory qualities of colours, sounds or smells are typically taken to be essentially conscious. In this talk, I present empirically informed neural argument for the existence of unconscious sensory qualities. I defend the individual premises of the argument, show how they are supported by available evidence, and respond to selected objections. If the argument is correct, the function of consciousness is not qualitative: consciousness does not create, enrich or refine sensory qualities. It just enables the already constituted qualities to become consciously available to the experiencing subject.

Matthias Michel (New York University), **The Old and New Criterion Problems**

Subjective reports such as "I didn't see the stimulus" can be interpreted as indicating either that the subject wasn't conscious of the stimulus, or as indicating that the strength of sensory signals associated with the stimulus fell below a potentially arbitrary criterion for answering "seen". Determining which of these two interpretations is right is the criterion problem. I present the main solution to the criterion problem: the '2-alternatives forced-choice' paradigm, and explain how we have recently gathered robust evidence for unconscious perception by using it. I then point to a new problem with the interpretation of criterion effects in consciousness science. What I call the "new criterion problem" consists in determining whether criteria effects reflect perceptual changes, or changes in response strategy. Based on case studies, I argue that this new version of the problem can be solved as well, although there is currently no systematic way to solve it.

Michal Polák (University of West Bohemia, Pilsen), **Conscious and Unconscious Phenomenality: Changes in the Conceptual Relations between Phenomenality, What It Is Likeness, and Consciousness**

A common standard is to define perceptual phenomenal character through consciousness: phenomenal features are considered to be conscious features (e.g. Chalmers 2018; Prinz 2012; Revonsuo 2010; Koch 2004; ffytche 2000; Block 2001). According to this dictum, if some perceptual feature is identified as phenomenal it inevitably implies that it has to be conscious. The general aim of the paper is to consider whether it is possible to separate phenomenality from consciousness and treat them independently. Perhaps the most serious consequence of this separation is that it reveals a possibility of unconscious phenomenality. This idea is not entirely new (see Marvan, Polák 2017 where they call it dual model; similar ideas but construed for sensory qualities can be found in Rosenthal 2010; 2005; 1991), but its wider acceptance is confronted with a lack of clarity about the relationships between key concepts involved in the dual model. The main aim is to introduce the dual model and further elaborate on particular conceptual issues arising in connection with the application of the following substantial concepts: phenomenality, what it is likeness (W-I-L), and consciousness. In the framework of the dual model, and by comparing it to the standard orthodox model, I will attempt to reconsider three types of relations: 1) phenomenality to W-I-L, 2) consciousness to phenomenality, and 3) consciousness to W-I-L. Ultimately, I believe that allowing for unconscious phenomenality changes our view on the extent to which unconscious content can be constituted and makes it easier to explain how unconscious perception works.

David Rosenthal (City University of New York), **The Science of Mental Qualities**

I contrast two ways in which we conceive of the qualitative character of perceptions. On one conception, mental qualities are specific ways in which there is something it's like for one to perceive. So conceived, mental qualities intrinsically involve consciousness, and are sometimes even thought to be determinates of consciousness. This conception is sometimes held to be the only way one can conceive of mental qualitative character, but it is not. An alternative conception, at least as well-entrenched in common sense, relies on perceptual functioning; mental qualities are the psychological properties in virtue of which we perceiving things and perceptually discriminate the various perceptible properties.

It's natural to assume that these two conceptions provide alternative ways of thinking about the nature of mental qualities, one on which they are necessarily tied to consciousness and the other as necessarily tied to perceptual discrimination and detection. But the two conceptions differ in a deeper that is rarely noticed: The consciousness-based conception makes it difficult to characterize mental qualities in distinctively psychological terms, and so difficult to theorize about them, again in characteristically psychological terms. That conception therefore makes a mystery of mental qualitative character, a mystery that some authors think is ineliminable.

The perceptual-role conception, by contrast, invites a natural and rich way both to characterize and to theorize are mental qualities. I'll show how the consciousness-based conception does make for an unavoidable mystery, and I'll sketch the scientific treatment of mental qualitative character that the perceptual-role conception points to.

Alberto Voltolini (University of Turin), **Unconscious Intentional yet Non-Mental States**

By reprising a venerable Cartesian-Husserlian tradition, some have recently maintained that the mark of the mental, i.e., the necessary and sufficient conditions in order for something (a property, an event, a state) to be mental, is for something to be experienced, i.e., to have phenomenal character, whether sensuous or not (Pitt 2004, Kriegel 2015, Montague 2016), viz. to involve phenomenal awareness or consciousness (Strawson 2004, Gertler 2007). This way of putting things seems to eo ipso rule out of the realm of the mental phenomenally unconscious intentional states, whether standing (e.g., dispositional beliefs or desires) or occurrent (unconscious perceptions, as

those driven by the dorsal stream or as those entertained by cognitively impaired people). In this talk, I want to show that this consequence is not as unwelcome as some believe. For there are plausible ways of circumventing the problems that it seems to arise.

Assaf Weksler (University of Haifa), and **Benjamin Henke** (University of Haifa), **Attention Capture and Conscious Experience. The Case of Perspectival Shape**

Involuntary Attention Capture (IAC) occurs when attention is drawn to a particular feature of the perceptible scene. Our interest in this paper is the role of IAC in the study of perception. Specifically, our primary aim is to challenge the following seemingly-obvious inference: "If a feature causes IAC, then it is perceived". Our claim will be that on one popular way of understanding what it is for something to be perceived--namely, that that feature is presented in experience--the inference is a bad one. In making this argument, we'll focus on what we see as a particularly clear case of the inference we aim to challenge: Morales, Bax, and Firestone's (2020) paper on perspectival shape. Thus, along the way, we will accomplish our second goal, of showing that the experiments presented in (Morales et al. 2020) do not establish the conclusion that perspectival shape is presented in conscious experience.

Paweł Zięba (University of Cracow), **Can unconscious perception guide action?**

According to Ian Phillips, a large class of putative instances of unconscious perception face the so-called problem of attribution. Because they are ill-suited to guide action, there is apparently no good reason to regard them as personal states rather than sub-personal states, i.e. to consider them as states of the individual rather than states of the perceptual system. Consequently, they fall short of genuine, individual-level perception.

In this talk, I argue that the problem of attribution rests on unsound reasoning. While Phillips uses personal-level criteria for perceptuality and sub-personal criteria for guiding action, consistency requires applying criteria from the same level to all mental phenomena. Once perception and action are both identified in personal-level terms, the reason is lost to believe that the putative instances of unconscious perception are ill-suited to guide action.