

The Department of Philosophy
Faculty of Arts and Letters
Matej Bel University, Banská Bystrica, Slovakia
cordially invites you to the conference

Representation and Values in Science and Art

to be held on

5. – 6. November 2026,

at

the State Scientific Library,

Lazovná 9, Banská Bystrica, Slovakia

Keynote speakers:

Jelena Pavličić Cerović (University of Belgrade, Serbia)

*Should Science Be Value-Free? Values, Representational
Decisions, and the Topography of Scientific Inquiry*

Kristina Šekrst (University of Zagreb, Croatia)

*Sciences Without Subjects: How Astrobiology, AI, and Cognitive
Science Reshape Scientific Values*

Paweł Grad (Jagiellonian University, Poland):

The Objectivity of Perceptual Experience

*If you would like to participate, please register by emailing: milos.taliga@umb.sk
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Jelena Pavličić Cerović: Should Science Be Value-Free? Values, Representational Decisions, and the Topography of Scientific Inquiry

The traditional value-free ideal (VFI) required non-epistemic values to remain confined to the external stages of scientific inquiry, without entering the internal processes involved in the formation and justification of scientific judgements. Over the past several decades, this requirement has been seriously challenged. The most influential challenge has come from the argument from inductive risk (AIR), which concerns the possibility of error involved in accepting or rejecting a hypothesis on the basis of available evidence. According to the AIR, because the seriousness of such errors can depend on their social, ethical, or economic consequences, judgments about where to set the evidential threshold can require non-epistemic value judgments. Yet, important as the AIR undoubtedly is in demonstrating that the role of non-epistemic values in science is more extensive than traditionally assumed, the predominant focus on inductive risk tends to leave other forms of value-laden scientific decision-making comparatively underexplored. Drawing on Biddle and Kukla (2017) on epistemic risk and Harvard and Winsberg's (2022) work on representation, I identify target specification as an epistemically significant function of some representational decisions. I use the term 'target-specifying' for those representational decisions that contribute to specifying and delimiting the target of inquiry and, in turn, shape the conditions under which evidence is generated and recognized as relevant. Such decisions can affect what evidence becomes available, what becomes evidentially salient or relevant, and what target that evidence is understood as bearing on.

Finally, attending to this target-specifying function, I raise a problem concerning the traditional distinctions and ways of describing scientific practice, including the aforementioned division between its internal and external stages, that have helped make the VFI appear a natural consequence of the structure of scientific inquiry. The broader implication is that the traditional topography of scientific inquiry cannot, by itself, tell us where values may legitimately operate. This also has implications for the responsible management of values in science, which requires identifying where, through which scientific decisions, and in what ways value influences become epistemically relevant.

Keywords: inductive risk; epistemic risk; scientific representation; target specification

link: <https://philpeople.org/profiles/jelena-pavlicic>

Kristina Šekrst: Sciences Without Subjects: How Astrobiology, AI, and Cognitive Science Reshape Scientific Values

This discussion focuses on two philosophical questions: the role of values in science and how scientific theories describe the world, taking into account modern interdisciplinary sciences. Several new fields are investigating topics for which there is no established theory or direct way to gather evidence. For example, astrobiology searches for life it cannot yet define, artificial intelligence research studies abilities that emerge from training data through processes we do not fully understand, and cognitive science explores minds beyond the human model, including animals and machines. These fields all face the same challenge, and I argue that this is gradually changing how science evaluates evidence. Astrobiology, which relies mostly on abductive reasoning, indirect evidence, and hypotheses that may remain untestable for decades (Šekrst, 2026), shows this change most clearly: false positives (Viking Labeled Release, Martian methane record, phosphine on Venus) are treated as the main error, while false negatives are mostly ignored (Persson, 2023). In terms of inductive risk (Rudner, 1953), this is a value judgment that appears cautious but actually keeps the Earth-centered bias that astrobiology wants to overcome.

Astrobiology does not have a shared theory about what it is trying to represent (Cleland, 2019). Because of this, its models define life using only one example (Mariscal, 2015), so biosignatures are judged by how much they resemble those on Earth, and habitability is based on how similar conditions are to Earth's. This shows a kind of conceptual speciesism, where the same human-centered thinking shapes our views of animal minds, machine minds, and alien life, and such a situation calls for an astrophilosophy that does not put human categories first (Šekrst, 2024). Hanson's (1958) idea that seeing is seeing as fits well here as well: when faced with the same unusual spectral feature, a spectroscopist suspects an artifact, a geologist thinks it is from outgassing, an atmospheric chemist suggests an abiotic source, and a microbiologist proposes a metabolism. The main difference is which hypothesis is expected to provide proof, while the data itself is shared by all. Identical approaches can account for the same behavior of machines, and since attempts to assess evidence concerning non-human systems encounter black boxes on both sides (Šekrst, 2025).

The result in these areas is a new iteration of a paradigm shift in the way knowledge is built (Kuhn, 1962): a move from observer-dependent methods with well-defined objects of study to distributed, multi-agent epistemologies in which humans are not the only ones who can interpret the data. Machine-learning systems are already capable of detecting patterns that lie beyond human recognition, and in the future they might enable us to realize that we have already noticed signs of life even though we did not recognize them. These new epistemologies call for a set of revised values, including epistemic humility as a standard practice, giving equal attention to false positives and false negatives, tolerating a long period of uncertainty, and being open to radically unfamiliar forms of life and mind.

link: <https://philpeople.org/profiles/kristina-sekrst>

Paweł Grad: *The Objectivity of Perceptual Experience*

This is an exploratory talk. I shall seek the most plausible interpretation of the claim that perceptual experience is objective and its implications for epistemology. I will start by introducing a distinction between thick and thin understandings of perceptual objectivity, based on Burge's distinction between representation of and representation as of. I will then point out problems for the claim that perceptual experience is thickly objective, i.e. that it represents its objects as mind-independent. The third section develops the idea of cognitive enrichment of perceptual phenomenology in terms of its thick objectivity. The idea is that, subjectively, we encounter our perceptual experiences as an aspect of total phenomenology, and this total phenomenology might be enriched by our conceptions of mind-independence. For instance, developmental psychology suggests that we acquire advanced conceptions of mind-independence in the course of our cognitive development, starting with mastering the distinction between appearance and reality. The feeling of experiencing objects in our environment as mind-independent—the apparent thick objectivity of perception—may be explained by this enrichment of total phenomenology, including perceptual experience, to the effect that we are inclined, on introspective grounds, to say that we experience the world as mind-independent. This, however, is in principle compatible with perceptual experience itself being only thinly objective, i.e., representing mind-independent objects without representing them as mind-independent. I conclude with some remarks on the consequences of my explorations for debate between objectivists and anti-objectivists (quasi-Berkeleyans) in the philosophy of perception as well as for the epistemology of perceptual justification.

link: <https://pawelgrad.net/#>