

## Norton for Everyone Conference – Abstracts

October 27 -28, 2018

**Richard Dawid** (University of Stockholm) — “The Material Inductivist, the Bayesian, and Complete Ignorance”

According to John Norton, Bayesian epistemology cannot serve as a universal logic of induction because it disregards the fact that the admission of total ignorance in some matters constitutes an important element of our world view. In this talk, I point out a distinction between two ways in which a theory can imply total ignorance. Statements of the first kind don't reach out beyond the theory by which they are implied. They are fully embeddable in probabilistic updating and don't generate problems for the Bayesian. Statements of the second kind are reinforced by meta-level considerations and do pose problems for the Bayesian on that basis. While statements of the second kind arguably haven't surfaced in scientific theory building in the past, there are some indications that they could play a role in future fundamental physics.

**Leah Henderson** (University of Groningen) — “Norton at the Boundaries of Probability”

Abstract: In recent work, John Norton has proposed a material theory of induction. Norton objects to all existing approaches to induction in philosophy of science on the grounds that they are inappropriately formal and aspire to an unachievable universality. He particularly objects to what he sees as an illegitimate attempt to impose probabilistic reasoning on all cases of induction. Norton claims that probabilities are only applicable in certain cases and he points to various cases in which he alleges that probabilistic treatment is not warranted by the facts on the ground. I will argue that in several of these cases, a probabilistic approach employing imprecise probability is in fact quite appropriate and has various advantages over the approach that Norton recommends. I also question the idea that probabilistic approaches to induction are inappropriately formal.

**Michel Janssen** (University of Minnesota) — “The Trouble with I in IBE”

Inference to the Best Explanation (IBE) is one of the targets of John Norton's campaign against universal patterns of induction. How to protect IBE from this attempt to purge it from the canons of scientific rationality? The most effective defense may be to grant Norton (and earlier would-be assassins like Bas van Fraassen) that the use of IBE in science often has nothing to do with inference. Scientists typically display what Peter Lipton has called the 'loveliness' of an explanation not to persuade their audience (be it fellow scientists, funding agencies, or the general public) of its 'likeliness' (to use Lipton's terminology again) but of its pursuit-worthiness (as Allan Franklin and others have called it). I'll gesture toward some general mechanisms by which evidence can accrue to explanations thus pursued. I leave it to others to survey the full range of such mechanisms and stand up for important commonalities of their applications in widely different scientific contexts in the face of the blanket skepticism of the material theory of induction.

**Molly Kao** (University of Montreal) — “Induction and Deduction in the Context of Pursuit”

Norton's fundamental insight into the justification of inductive inferences is that all existing frameworks that purport to account for the structure of such inferences rely essentially on local, material facts. He thus argues that such frameworks, while useful in particular contexts, are the wrong way to approach the justification of induction more generally. In this talk, I will argue that paying closer attention to the notion of theory pursuit can help us better understand the role of certain patterns of reasoning suggested by these frameworks. I will begin by drawing some parallels between our evaluation of deductive and inductive inferences in the context of scientific inquiry. Based on this comparison, I will suggest that we should characterize the role of these patterns of inference as indispensable guides to the determination of the pertinent local facts for a given inference.

**Jonathan Livengood** (University of Illinois at Urbana-Champaign) — “Debunking Induction”

I survey some formulations of the problem of induction and consider how Norton's material theory recommends that we reply to them. I pose some questions I still have about how the material theory is supposed to work. Then I turn to what Norton calls the "historical-anthropological" objection. After rehearsing how Norton replies to the objection, I offer an alternative genealogical argument for a general skepticism about induction. And I argue that the material theory does not provide an adequate reply to the genealogical challenge.

**Wendy Parker** (Durham University) — "Inferring the Best Explanation of 20th Century Climate Change"

TBA

**Elay Shech** (Auburn University) — “Historical Inductions Meet the Material Theory”

Historical inductions, viz., the pessimistic meta-induction and the problem of unconceived alternatives, are critically analyzed via John D. Norton’s material theory of induction and subsequently rejected as non-cogent arguments. It is suggested that the material theory is amenable to a local version of the pessimistic meta-induction, e.g., in the context of some medical studies.

**David Wallace** (University of Southern California) — “Quantum Inductive Logic and the Everett Interpretation”

TBA