Call for Papers:

"The Pursuitworthiness of Experiments Across the Sciences"

Topical Collection in the *European Journal for Philosophy of Science*

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Originally going back to Larry Laudan's (1977) distinction between the 'context of acceptance' and the 'context of pursuit,' the concept of *pursuitworthiness* has garnered considerable attention in the philosophy of science in recent years. For instance, philosophers have explored the different stances on pursuitworthiness adopted by towering figures in the field such as Thomas Kuhn and Paul Feyerabend (e.g., Šešelja & Straßer, 2013; Shaw, 2022), and have advanced and debated manifold epistemic criteria on what makes a scientific idea or proposal worthy of being undertaken (e.g., Achinstein, 1993; Šešelja et al., 2012; Šešelja & Straßer, 2014; Shan, 2020; DiMarco & Khalifa, 2019, Fleisher, 2022). The significance of this enlarging body of scholarship notwithstanding, philosophical reflections on the pursuitworthiness of scientific research have almost exclusively focused on theories, (and to a lesser extent on) models and research programmes *in toto* (e.g., Lichtenstein, 2021; Cabrera, 2021; Haueis & Kästner, 2022; Han, 2023; Fischer, 2024a; Wolf & Duerr, 2024, Duerr & Fischer 2025), whereas systematic and comprehensive reflection on the *pursuitworthiness of experiments* is hitherto lacking (but see Laymon & Franklin, 2022; DiMarco & Khalifa, 2022; Fischer, 2024b). This is an important and somewhat surprising lacuna because it is often the experiments, out of the many elements that make up scientific practice, that require large amounts of funding, deliberations, and long-term planning.

For the philosophy of science, delving into the pursuitworthiness of experiments is also particularly pressing given that since the years of Laudan's initial proposal, the philosophy of experiment has re-established itself as a central element in the canon of the discipline (see, e.g., Hacking, 1983, 1988; Gooding et al., 1989; Steinle, 2002; Radder, 2003; Weber, 2009; Feest & Steinle, 2016; Bokulich & Bocchi, 2024). Philosophers of experiment have foregrounded many important considerations (e.g., material cultures of experimentation and the role of instruments, the importance of tacit knowledge in experimental manipulations, and how experiments affect concept, model and theory formation), but they have not inquired in detail about the context of pursuit of experiments in different scientific settings. In this sense, the topic of the pursuitworthiness of

experiments lies at the interface between two salient, overarching problem spaces in the philosophy of science.

The aim of this topical collection is to put discussions of the pursuitworthiness of experiments on the agenda of general philosophy of science and the philosophies of the special sciences. It will bring together contributions addressing experiments across the sciences, from the physical and chemical sciences to the life, biomedical, and cognitive sciences, as well as the social sciences. [For more details on possible topics and questions, references and instructions for submission see the full call for papers]:

More specifically, the topical collection welcomes contributions addressing various issues and questions, including but not limited to the following:

- Traditionally, the context of pursuit is contrasted with the context of acceptance. This is a distinction that *prima facie* does not seem to apply when concepts of pursuitworthiness are brought to bear for the evaluation of potential experiments. What are the conceptual differences between the pursuitworthiness of theories and the pursuitworthiness of experiments?

- What are the criteria for analyzing the pursuitworthiness of certain experiments over others? Can such criteria be determined at all?

- Traditional discussions have highlighted the need to arrive at a *logic of pursuit* that renders ponderings on pursuitworthiness part of a *rational* enterprise which ought to be grounded in explicit and sound justification for carrying out certain kinds of scientific research instead of other kinds. Could a logic of pursuit of scientific experiments be countenanced and reached?

- What type of pursuitworthiness judgements regarding experiments can be made (e.g., comparative or categorical)?

- Can criteria of pursuitworthiness of experiments or background assumptions in pursuitworthiness judgments be generalized or extrapolated across the sciences? Or do particular branches of science weigh the pursuitworthiness of their experimental set-ups differently, attending to particular, epistemically-tailored considerations?

- What criteria of pursuitworthiness are applied in science funding of experimental research? What criteria should be factored in?

- Could the 'apokritic model of pursuit' advanced by DiMarco and Khalifa (2022) be applied or adjusted for criticizing the allocation of resources for all kinds of scientific experiments? What is the relationship between the pursuitworthiness of experiments and criticizability?

- On what level of decision-making do and should considerations of pursuitworthiness of experiments take place (e.g., individual scientists vs. research communities)?

- Sometimes scientists have clear expectations regarding the possible outcomes of an experiment. Sometimes they don't. What is the role of uncertainties in considerations of pursuitworthiness?

- How can the pursuitworthiness of hypothesis-driven experiments be evaluated in contrast to so-called 'exploratory experimentation'?

- Should the pursuitworthiness of experiments be assessed differently in contexts of what Shaw (2022) calls 'luxury science' and 'urgent science'? The former refers to cases when there is no expected timeline for returning particular results in contrast to scenarios whereby there is a practical or moral reason demanding a result within a constrained time frame. This last scenario is also related to what philosophers have recently dubbed 'fast science' (see Friedman & Šešelja, 2023; Stegenga, 2024), referring to instances in which scientists might explicitly go against traditional principles and practices to quickly develop and enforce interventions against sizable threats (e.g., catastrophes, pandemics). Should special standards apply for pursuitorthiness judgments in the midst of fast science?

- For some authors, scrutinizing pursuitworthiness in science requires taking into account the *possible futures* that scientific research could take (Virmajoki, 2023). But how could particular pursuitworthy experiments or experimentation regimes alter the possible landscapes of scientific research? How do we take into account the forward-looking nature of the pursuitworthiness of an experiment?

Other possible paper topics for the topical collection include (but are not restricted to):

- Arguments and positions that disavow the quest for deciding the pursuitworthiness of experiments (e.g., articulating a stance that could be called 'experiment nihilism').

- Discussions about the pursuitworthiness of experiments in the establishment and maintenance of what Ankeny and Leonelli (2016) have dubbed 'scientific repertoires.'

- The role of epistemic and non-epistemic values impacting individual and collective judgments on the pursuitworthiness of experiments.

- The interrelationship between the pursuitworthiness of experiments and the pursuitworthiness of theories, models, and/or research programmes.

- Historical case studies of how scientists in different disciplines mulled over the pursuitworthiness of certain experiments.

- Transformations in the pursuitworthiness standards of experiments throughout the history of science.

Instructions for Submission

Please submit your contribution (max. 15.000 words) by examining and complying with the editorial guidelines of the *European Journal for Philosophy of Science*: https://link.springer.com/journal/13194/submission-guidelines. To submit a paper, you have to select the topical collection in the first drop-down menu when you create a submission (Select Article Type > TC: The Pursuitworthiness of Experiments Across the Sciences).

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