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The Legacy of Feyerabend

Booklet of Abstracts

Keynote Speakers

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Speakers

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Chiara Ambrosio (University College London)

Feyerabend on Art and Science

Feyerabend's philosophy is replete with artistic metaphors, which have remained only marginally addressed by philosophers of science. In this talk, I present some findings from my initial, systematic research into Feyerabend's extensive use of art. I argue that, far from serving narrowly "illustrative" purposes, artistic practices played an integral role in how Feyerabend approached particularly issues of representation in the sciences. I highlight two interconnected lines of inquiry that characterize Feyerabend's approach to representation in the sciences. One is the issue of artistic styles, which Feyerabend exploits, explicitly looking at the history of art, to question 'naively imitative' views of science, its methods, and its progress. The other is the issue of imitation as a conceptual category in its own right, and its relation to representation. Tracing the evolution of Feyerabend's thinking through this concept, from the essay "Problems of Empiricism" (1965) to the book *Scienza come Arte* (*Science as Art*, 1984) and all the way to posthumously published *Conquest of Abundance* (1999), I show that Feyerabend progressively rescues a role for imitation as a dynamic and performative category in science as well as art. I will conclude that, without reducing representing to imitating, the late Feyerabend invites us to reconsider imitation as one of the possible pathways to explore "the richness of Being", and engage with the ways in which scientists, in analogy with artists, reconfigure reality through the process and practice of imitating it.

John Preston (Reading)

Feyerabend and Mach

Of all the influences on the work of Paul Feyerabend, Ernst Mach's was probably the most long-standing, and undoubtedly among the most important. I first show that Feyerabend's earliest mentions of Mach are heavily under the influence of Karl Popper. Early Feyerabend characterises Mach in traditional terms as a positivist whose philosophy is flawed in comparison with critical rationalism. Next, in the papers Feyerabend published during the early and mid-1960's, Mach appears in two main guises: not only as an anti-realist, but also as an anti-pluralist. I show that while there are some flashes of insight about Mach here, by and large Feyerabend sticks to the traditional way of reading him as aligned with the logical empiricists. Feyerabend did, however, come to change his mind about Mach. He eventually came to be at the forefront of those who initiated a re-evaluation of Mach, thereby beginning to move opinion away from the 'received view'. Feyerabend's published struggle on Mach's behalf began in earnest around 1970. From this point onwards, his attitude to Mach was relatively constant. While endorsing several of the ways in which Feyerabend came to characterise Mach's thought, I take issue with some other themes in these publications. I suggest that we should not follow Feyerabend's mature reading of Mach in its entirety, since he had turned away from certain sensible aspects of Mach's ideas. Most notably, Feyerabend misinterpreted what Mach said about world views, he wrongly imagined that Mach endorsed the 'constructivist' ideas that human cognition transforms (non-cognitive) facts, and that facts themselves get adapted, and he fancifully ascribed to Mach his own view that *all* concepts are 'theoretical' concepts.

Valeria Ascheri (Pontificia Università della Santa Croce)

Against the traditional scientific method: a comparison between Michael Polanyi and Paul K. Feyerabend's ideas

Twenty years before the publication of Paul K. Feyerabend's *Against Method* (1975), Michael Polanyi (1891-1976), a Hungarian chemist and philosopher of science naturalized Englishman, had written his most important work: the essay *Personal Knowledge. Toward a Post-Critical Philosophy* (1958). Comparing some of the ideas of the two authors, one can find similarities that lead one to recognize a common approach, but with different outcomes. Both philosophers criticize the "objectivist rationalism" that underlies the view of science as a form of knowledge that must necessarily follow a certain methodological protocol in order to be considered as such - both at the "discovery" and "justification" stages - and that describes scientific knowledge as absolutely neutral and objective, and completely free from judgments and any kind of conditioning by scientists. Thus, a brief comparison between Feyerabend and Polanyi seems interesting, even though they operate in very different academic contexts (and 20 years apart), because they represent one side of the critique of scientific rationalism - different from Popper's philosophy - and both intend to propose a new idea of "extended rationality" - later also supported by the teaching of Pope Benedict XVI - according to which the human factor in reality, cannot be limited or explained only through the scientific method inspired by a pure analysis/synthesis typical of the "Cartesian" method and mechanically guided by rules, laws, norms and principles to be applied. The central issue that I will try to expound and evaluate is the different outcome that the two philosophers arrive at regarding the question of scientific method: according to Polanyi, there is a need to acquire a new vision of the scientific method - which cannot be purely logical-rational - but instead must recognize the broad and original contribution of each individual's personal knowledge, most often implicit and tacit; according to Feyerabend, on the other hand, the idea and constraints of the scientific method must be overcome by preferring an attitude of freedom that leaves room for the creativity and intuition of the scientist, proposing a methodological anarchism. In conclusion, after adequate study, the two philosophers seem to propose a vision that appears even more compelling, complementing each other in unexpected ways. On the occasion of the first centenary of Feyerabend's birth, it seems important to me to bring to light this affinity of thought with the lesser-known Michael Polanyi.

Luis Bartolo (LMU München)

Feyerabend and Inconsistency

The philosophy of science has traditionally understood the body of scientific knowledge as being consistent, unified, and continuous. However, Paul Feyerabend's work challenges this conventional wisdom by advocating for a more radical approach to scientific methodology. He proposes a proliferation model that allows and even encourages the existence of mutually incompatible theories and methodologies within a given field. Feyerabend criticised the 'consistency condition', which mandates that new theories must align with established ones. He argued for the simultaneous development of conflicting theories, believing this approach enhances empirical content and fosters a more dynamic and creative scientific environment. He also supported the method of multiple working hypotheses, which is based on the principle of diversity and pluralism in scientific inquiry. In his anti-method model of inquiry, Feyerabend suggested that when a dominant method becomes stagnant, introducing competing methods or research strategies is essential to stimulate progress. This view opposes the idea, supported by scholars like Thomas Kuhn, that scientific creativity is best achieved through convergent

inquiry. Feyerabend's radical perspective challenges the monolithic nature of scientific practice and promotes the idea that scientific progress thrives on diversity and inconsistency. Feyerabend's views have faced criticism. Kuhn, for example, questioned the feasibility and efficiency of proliferating methodologies, citing concerns about resource constraints and potential fragmentation of scientific communities. This talk will explore and critically evaluate Feyerabend's ideas on inconsistency in science. By examining his arguments and the critiques from other scholars, the discussion will highlight the implications of Feyerabend's proliferation model for scientific methodology.

Vincenzo Crupi (Università degli Studi di Torino)

For the method against all odds: The “cold case” of early Copernicanism

Paul Feyerabend's case “against method” in the early Seventies was genuinely heretical and famously described as “obviously extreme”. Fifty years on, Feyerabend's challenge seems to have gone through the whole (spurious) Gandhian cycle from ridicule to full victory, as witnessed by major as well as diverse figures in contemporary philosophy of science and science itself: “there is no singular scientific method” (social epistemologist Naomi Oreskes), “there is no overarching scientific method of any substance” (philosopher of science Philip Kitcher), “we do not have a fixed scientific method” (physicist Steven Weinberg). Arguably, a variety of tendencies have converged towards this outcome, but one paramount case of study seems to have played a critical role in the revolt against methodological monism in traditional philosophy of science, namely, the Copernican revolution. In fact, Feyerabend's original claim that “Copernicanism [...] survived only because reason was frequently overruled” is perhaps the most forceful illustration of this connection. One relatively rare contemporary episode of sustained opposition to this view was put forward around the same time by Feyerabend's personal friend and intellectual foe, Imre Lakatos, in joint work with Elie Zahar. The primary goal of my contribution is to revive Lakatos and Zahar's methodological vindication of Copernicanism in updated form, implying that “there were good objective reasons for Kepler and Galilei to adopt the heliostatic assumption” after all. This will include a revised discussion of the use-novelty of empirical facts in science, which actually amounts to a relatively new tentative demarcation between empirical success and mere accommodation of known phenomena. My detailed analysis will branch out in two directions. First and foremost, previous limitations of a “predictivist” account of the Copernican controversy can be amended to resist apparently compelling criticism. Moreover, this new rational reconstruction of the “cold case” of the Copernican revolution undermines the now popular dismissal of a unitary philosophical analysis of the methodological foundations of scientific inquiry. Not all features of Feyerabend's philosophical perspective are disputed in this project: the key directive “to make the weaker case the stronger” is very duly followed.

Antonino Drago (Università degli Studi di Napoli “Federico II”)

From Feyerabend's philosophical definition of incommensurability to an operative and formal one

The concept of incommensurability was independently introduced by Thomas S. Kuhn in *The Structure of Scientific Revolutions* (1962) and Paul K. Feyerabend in “Explanation, Reduction and Empiricism” (*Minnesota Studies in the Philosophy of Science*, III, 1962) and *Against Method* (1975) to highlight cultural conflicts between scientific theories. Kuhn described incommensurability as arising from variations in the meanings of common concepts within

different paradigms, suggesting an idealistic notion of a Gestalt phenomenon to explain the shift between paradigms, thus aiming to prevent the simultaneous existence of conflicting paradigms. In contrast, Feyerabend acknowledged radical conflicts between theories through significant variations in meaning while maintaining their mutual translatability. The ensuing debate criticized incommensurability for potentially leading to irrationalism and the collapse of reason, largely neglecting any underlying principles of theory construction and failing to define what constitutes a scientific theory. Focused primarily on theoretical physics, this debate was ultimately inconclusive and did not advance the exploration of its foundations. In the 1980s, a formal, operational description of incommensurability based on similar notions to what Feyerabend called “principles of construction” was proposed. This approach views each scientific theory as relying on two basic dichotomies: one concerning the type of infinity (actual infinity (AI) using classical mathematics, or potential infinity (PI) using constructive mathematics), and the other concerning theoretical organization (axiomatic-deductive organization (AO) governed by classical logic, or problem-based organization (PO) governed by intuitionist logic). In this framework, two scientific theories are incommensurable if they differ in at least one of these dichotomies, as there is no common standard between the alternatives of each dichotomy, preventing any fundamental connections between incommensurable theories (A. Drago, “An effective definition of incommensurability,” *VIII Congress on Logic, Methodology and Philosophy of Science*, Moscow, 1987). Drawing on examples from the history of physics, this paper argues that this formal notion of incommensurability: a) enhances Feyerabend’s concept by acknowledging the role of formalism; b) supports his suggestion of a “contextual theory of meaning” for scientific concepts of incommensurable theories; and c) aligns with a defense of pluralism in science, in a spirit similar to Feyerabend’s work.

Pierre-Luc L’Hermite (Institut de Recherches Philosophiques de Lyon)

Feyerabend: the best ally for the philosophy of medicine

No philosopher of science can ignore the 'bon mots' Paul Feyerabend was addressed in 1987: 'The worst enemy of science'. We would like to reverse this phrase and try to show how Feyerabend's work is particularly valuable in many respects for contemporary philosophy of medicine. It is well known that Feyerabend is a war-wounded man who has endured a lifetime of suffering, including orgasmic deprivation, and, like many people facing chronic health conditions, he had to come up against the limits of conventional medicine. “I often suffered from the wound I had received during the war. The pain would slowly creep up on me, build up a beachhead, invade me and stay for hours, even days. I took anaesthetics, at first in normal doses, then increasing the amount, up to five times the normal dose”. So, he started looking for alternative solutions likely to improve his condition. In this presentation, I wish to argue that this interest in medicine should be seen as an expression of the scientific plurality so much valued by the Feyerabendian doctrine. Indeed, the defence of pluralism is nowadays, perhaps more than ever, relevant in the medical field. Current questions involve looking at how the body functions or how medical knowledge is shaped. At a time when the foundations and legitimacy of medicine are being challenged by the emergence of so-called unconventional approaches, disciplines are being urged to be studied in depth by examining their therapeutic claims and their underlying theories, since, as Feyerabend put it, "you never study an idea in all its ramifications, and you never give a particular conception all the chance it deserves", expanding his reasoning to include the freedom of individuals to choose the form of care they wish to receive, and even, more broadly, the ways in which they live their lives. It is worth pointing out how Feyerabend's work can shed light on contemporary challenges in medical philosophy (I),

contribute to put medical claims into perspective (II), help to highlight the value of controversies between medical models (III) and, ultimately, give rise to new perspectives (IV).

Daniele Molinari (Università di Parma)

A Feyerabendian View on the Normativity of Imagination and the Evolution of Thought Experiments

According to Bokulich and Frappier, understanding thought experiments as Waltonian props for the imagination cannot explain their widespread evolution (2018: 554), since the content of a thought experiment is fixed by its narrative and prescriptions to imagine (or “fiction-based constraints”). That is, what is true in the fictional scenario constrains the researchers’ imagination not to imagine otherwise. I suggest that the normative dimension of the imagination is much more flexible than Walton claims – at least when it comes to employing our imaginative skills in thought experiments. The philosophy of Feyerabend can help show this by providing a better understanding of the fruitful role of transgressions of prescriptions to imagine. In particular, I focus on the power of subjective imaginings to develop debates based on thought experiments. The readers of thought experiments are not passive subjects. Instead, they are receptive researchers who rely on an initial fictional narrative to challenge (or to strengthen) the epistemic stance for which a thought experiment was designed in the first place. This dialectical process can be framed through the Waltonian notions of “work world” and “game worlds”, that is, the intersubjective set of fictional truths provided by a prop and the subjective imaginings generated by participants in the game of make-believe. According to Walton, a proper player creates her game world by building on the work world and trying to reduce mismatches between the two worlds. However, the philosophy of Feyerabend can highlight the fruitful role of slightly off and idiosyncratic game worlds. By violating and amending the fiction-based constraints, researchers engaged in a thought experiment give their creative game worlds such a prominent role that they eventually evolve the work world itself.

Jacques Nlend (The University of Yaounde I, Cameroon)

Feyerabend and the Rationality of Discovery: Challenging the Traditional Scientific’s Methodology

Rather than only a breath of fresh air for positivists and postpositivists, Hans Reichenbach’s distinction between the contexts of discovery and justification formulated in 1938 produced an unexpected reaction, namely to generate interest in the ‘logic of discovery’. For philosophers driven by this interest, the challenge is to rationalise a phenomenon that is a priori described as irrational. How can such a challenge be met when ‘logic’ or ‘rationality’ seem synonymous with ‘algorithm’? On the one hand, a traditional position appears to maintain the rational/logical couple, and on the other, discovery seems to escape all logic or at least does not necessarily obey it. Opposed to the English and French translations of the title of his work as he emphasises: “The initial stage, the act of conceiving or inventing a theory, seems to me neither to call for logical analysis nor to be susceptible of it” (Popper, 2002 [1935]; 1959, p.7), Popper clarifies his position on the debate. However, three years after the publication of the English version of Popper’s work, Hanson published a paper with an evocative title: “Is there a logic of scientific discovery?” (1961), in which he advanced a thesis contrary to that of Popper but already advocated by Charles Sanders Peirce (1931). Twelve years later, Herbert Simon (1973; 1977) also published a paper titled similarly: “Does scientific discovery have a logic?”. Simon does not restate Hanson’s position but explicitly addresses the problem of the potential for

researchers to invent theories based on logic. According to Hanson, there is a 'logic of discovery' understood as *ars judicandi a priori* or 'prior judgement procedure'. Paul Feyerabend is even more radical. He goes beyond this first sense of the 'logic of scientific discovery', which does not do justice to the growth of knowledge as the goal of research, nor does it emphasise the invention as the task of scientists (Feyerabend, 1993, p. 23 ff). The Feyerabendian position presupposes an *ars inveniendi*, i.e. a logic understood as a 'method of discovery'. The issue is that if one accepts a 'logic of discovery' or at least the rationality of the context of discovery, then this does not necessarily mean that there is an algorithm for generating new theories, which ends the research. The aim is to defend the thesis that it is legitimate to speak of a 'logic of theory generation' different from the 'logic of prior assessment' envisaged by Hanson. This thesis appears to be the best way to account for scientific practice.

