I will argue that neither PP nor AIT are necessarily incompatible with CR. Feyerabend’s views on theory proliferation and anomaly import as they are presented in his early publications and his Against Method; and b) My paper has two objectives: a) To work out the systematic details of Feyerabend’s ideas on theory proliferation and anomaly import as revolution in permanence rather than steady accumulation of knowledge. Divergent evaluations of the significance of Feyerabend’s TP soon emerged and philosophers of science, both within and without the Popperian School, divided over the question whether TP is just an extension of CR, which simply makes explicit, in its sensible aspects, what Popper had left implicit, or whether TP departs from the methodology of CR to such an extent that the former represents a genuine alternative to the latter. The anti-methodological stance that Feyerabend took from the late 1960s as well as the doubts cast on the tenability of TP in the 1970s left the question open. Yet, Feyerabend did not publicly acknowledge any serious flaw in his arguments in favour of TP nor did he actually ever abandon or understate its core. The recent revival in Feyerabend studies, sanctioned by the first international conference on his thought in 2012 and by a forthcoming special issue of Studies in History and Philosophy of Science, has started reassessing the question, taking advantage of historical distance. On the twentieth anniversary of Popper’s and Feyerabend’s deaths, the present symposium is designed to focus and delve deeply into the question from different angles, taking stock of the state of the art in current research, profiting from the archival sources which have become available over the last two decades, and advancing novel and firmer interpretations of the relation between TP and CR. The symposium is composed of three main parts: two 50-minute sections, emphasizing respectively continuities and ruptures between the two positions, and a 20-minute general discussion open to the floor. Every section features two 20-minute presentations, each followed by a 5-minute break in which the speaker could answer short questions of clarification.

Section I - Continuities

Paper 1 - Feyerabend and Popper on Theory Proliferation and Anomaly Import

Feyerabend is well known for his positive assessment of theory proliferation. In short, the Principle of Theory Proliferation (PP), as Feyerabend himself calls it, holds that scientific progress is catalyzed by the availability of a number of competing theories. However, Feyerabend not only repeatedly claims that theory proliferation is needed and necessary for scientific progress, but he also provides a reason why he believes this to be the case, i.e. he not only claims that proliferation is a good thing to have, but he also presents a mechanism explaining how the simultaneous presence of contrasting theories leads to scientific revolutions and ipso facto brings about progress. In short, Feyerabend argues that the availability of theoretical alternatives has a magnifying effect on anomalies within well-established theories. This claim goes beyond PP. Accordingly, Hoyningen-Huene, in his discussion of Feyerabend’s critique of Kuhn, has given it a separate name, calling it the Anomaly Import Thesis (AIT): Anomalies are imported, as it were, into well-established theories from competing alternatives. Obviously, PP and AIT are closely related. My paper has two objectives: a) To work out the systematic details of Feyerabend’s ideas on theory proliferation and anomaly import as they are presented in his early publications and his Against Method; and b) to compare Feyerabend’s ideas on theory proliferation and anomaly import with corresponding features in Popper’s critical rationalist philosophy of science. I will argue that neither PP nor AIT are necessarily incompatible with CR. Feyerabend’s views on theory
proliferation and anomaly import must be seen as a variation of certain ideas that Popper had already formulated in The Logic of Scientific Discovery and elsewhere. In spite of Feyerabend’s anti-Popperian attitude, I claim that TP can be seen as an advancement of the critical rationalist philosophy and that CR provides good arguments for pluralism.

Paper 2 - A Sorcerer’s Apprentice or How Feyerabend Transmuted Critical Rationalism into Theoretical Pluralism and Got Cursed with Incommensurability

This paper presents a detailed reconstruction of the argument through which Feyerabend introduced TP in “Explanation, Reduction, and Empiricism” (1962) as well as of the process of its composition. It is shown not only that the original premises of Feyerabend’s argument have a distinctively Popperian pedigree, but also that their use was influenced by inputs that Feyerabend received directly from his mentor in 1959-60. On the basis of the argumentative structure of Feyerabend’s essay, TP is to be considered as the normative or methodological counterpart of his descriptive Incommensurability Thesis (IT). Whereas both IT and TP bear some debt to Popper’s views, TP more especially is the result of the combination of two basic tenets of the philosophy of science of CR: (i) the methodological preference for maximally falsifiable theories, the degree of falsifiability of a scientific theory being proportional to its empirical content, i.e. to the size of the class of its potential falsifiers; and (ii) the idea that observational evidence is theory-laden. An extreme interpretation of (ii) led Feyerabend to deny that phenomena relevant to T can be correctly perceived and described from within T’s conceptual framework, and, as a consequence, to claim that the empirical content of T is partly dependent on theories that are alternative to it. Accordingly and elaborating upon (i), Feyerabend thought of theories semantically incommensurable with T as the strongest possible alternatives to it, therefore guaranteeing its highest possible falsifiability. However, thus conceived incommensurable theories turn out to be logically disjoint, i.e. radically incompatible beyond the expressive capability of negation as a logical operator; which undermines the falsificationist rationale of Feyerabend’s argument. So, in distilling TP out of CR, Feyerabend stretched Popper’s views to such an extreme limit that he lost control of the consequences of his magic performance.

Section II - Ruptures

Paper 3 - Feyerabend and Popper on Progress and the Aim of Science

Feyerabend’s and Popper’s views on theory proliferation are discussed and related to three theories of progress: (i) the theory of progress as increasing explanatory power, advocated in Popper’s The Logic of Scientific Discovery (1935/1959); (ii) the theory of progress as approximation to the truth, introduced in his Conjectures and Refutations (1963); and (iii) the theory of progress as a steady increase of competing alternatives, which Feyerabend put forward in “Reply to Criticism” (1965).

The mixed standing of the pluralistic model of theory testing that Feyerabend proposed in “Explanation, Reduction, and Empiricism” (1962)—revolving around the claim that a severe test of a theory T requires to take into consideration not only the available evidence, but also alternatives to T—is emphasized: although the model originated within an unmistakably falsificationist framework, by the mid-1960s it evolved in such a way as to make it incompatible with Popper’s ideas on proliferation.

More specifically, Feyerabend’s understanding of the notion of empirical content, his insistence on the importance of discredited theories, his putting the notion of incommensurability into the service of proliferation, and his embrace of the theory of progress as a steady increase of competing alternatives that do not converge towards the truth, led him to step out of the falsificationist framework. However, also Popper’s ideas concerning the aim of science evolved: while in the 1930s he had defended a theory of science in which the concept ‘true’ was avoided, in Conjectures and Refutations he advocated that progress can be accounted for in terms of the increasing approximation to the truth of our theories, and was the first to devise a formal explication of the notion of verisimilitude. We suggest that such a change in Popper’s axiological commitments is an underestimated factor that contributes to account for Feyerabend’s changing attitude towards falsificationism.

Paper 4 - How Feyerabend’s Theoretical Pluralism Is Incompatible with Popper’s Critical Rationalism

Recent publications have challenged the view that Feyerabend’s TP is incompatible with Popper’s CR. For example, apparent similarities between Feyerabend and Popper’s views that purportedly support this attack have been highlighted and it has also been suggested that Feyerabend’s TP is more Popperian than has been widely supposed. This paper argues that these conclusions are based on misrepresentations of Feyerabend and Popper’s views. Feyerabend’s TP is based on an idea of the role of incommensurable rivals in theory testing that undermines the central pillar of Popper’s critical rationalism: his deductivist account of the logic of science (commonly known as falsificationism). Moreover, Popper and Feyerabend’s incompatible views on theory testing lead Feyerabend and Popper to incompatible accounts of scientific advance. The argument runs as follows. Popper’s main claim is that the logic of science is deductive, not inductive. Systems of proposed hypotheses are tested against experience by deducing basic statements from them (with the help of auxiliary assumptions) that can be used to test them. This leads to their falsification or corroboration. According to Feyerabend’s TP, sometimes theories can be tested on the basis of statements of
facts that cannot be deduced from them. For example, particular statements of facts about the statistical behavior of Brownian motion refute classical phenomenological thermodynamics, but (according to Feyerabend) these facts could not have been deduced (or even established) from within its conceptual framework. An incommensurable rival, the kinetic theory of heat, was needed to establish these facts. If Feyerabend is correct, then Popper’s falsificationist account of theory testing requires revisions that allow for empirically testing incommensurable scientific theories. Feyerabend’s TP is best understood as an attempt to make such revisions.