Over the years several attempts have been made to put forth scientific methods with universal applicability. These attempts have been met with incredulity. Any such attempt, it is argued, is likely to fail given the substantial ontological differences between scientific disciplines as well as within a given scientific discipline across history. As a consequence, widespread pessimism has ensued over the existence of such methods. In this talk I endeavour to stem the pessimistic tide by arguing that we are already in possession of some universal methods and, moreover, that we are converging towards others, giving various examples along the way.

The pessimism concerning universal methods is perhaps best reflected in two (otherwise very different) works, namely Feyerabend (1975) and Kuhn (1977). According to Feyerabend, "... there is not a single rule, however plausible, and however firmly grounded in epistemology, that is not violated at some time or other." (p. 14). Kuhn doesn't want to come off quite as extreme as Feyerabend. Even so, he still expresses the view that although some methodological criteria are constant, e.g. accuracy and consistency, they "function not as rules, which determine choice, but as values, which influence it" (p. 331). How much influence they mete out depends on the particular interpretation we assign to them. And this, according to Kuhn, may vary. Thus, once again, the conclusion is that there is no universal rule, indeed not even a universal value, for there is presumably no uniquely interpreted criterion to fall back on.

In opposition to these prophets of doom, I argue that there is plenty of reason for optimism. First of all, it is useful to distinguish, largely following Worrall (1988), between core and peripheral methodological principles. Only the former may properly be said to be universal. The latter are specific to the disciplines that employ them. The question of whether there are universal methods thus is not affected by the overthrow of peripheral methods. Moreover, and contra Worrall, it is important also to distinguish between core principles that are indeed universal and hence will, or at least ought to, justifiably remain invariant from their discovery onwards and those that approximate universality to varying degrees and hence will, or at least ought to, change. We may approach the latter in the same divide-et-impera way scientific realists approach theories that approximate truth to varying degrees. Progress toward the truth, according to them, can be maintained so long as the well-confirmed parts of predecessor theories generally get preserved (at least in some limit form) in the successor theories. Similarly, progress toward additional universal methods can be maintained so long as the well-performing parts of predecessor methods get preserved (at least in some limit form) in the successor methods.

References: