

All three of the basic scientific methods and modes of argumentation stand for something very simple and easy to understand.

Behind *axiomatic argumentation* is the simple idea that, from certain axioms, certain conclusions can be inferred by logical necessity that derive their justification from being traced back to the axioms. Thus, whether or not a judgment is *justified* (i.e., axiomatically legitimated) depends on its place in some axiomatic system, on its coherence with other propositions in the system.

Behind *empirical argumentation* is the simple idea that empirical statements need to be tested by how they relate to observations made in experience, and that, in the case of the more general of them, this requires a two-step procedure of: (1) deducing certain conclusions from them; and (2) comparing these conclusions with experiential observations. Thus, whether or not an empirical statement is *verified or falsified* (i.e., empirically legitimated) depends on its correspondence with the empirical fact it is intended to express as confirmed by observations.

Similarly, the simple idea behind *philosophical argumentation* is that any statement made in the context of some form of experience has and implies certain necessary and fundamental presuppositions, but for which it could not be meaningful or even possibly true. By beginning with the statement, then, philosophical analysis explicates the most basic presuppositions that it implies. Thus, whether or not a philosophical statement about basic presuppositions is *validated* (i.e., philosophically legitimated) depends on its explicating a presupposition shown to be necessarily implied by philosophical analysis.

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