

# [Underdetermination and holism](https://assignbuster.com/underdetermination-and-holism/)

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Undeterminism and Holism A critical look at the problem of undeterminism shows that it is not right to dismiss the problem of undeterminism as a mere case of philosophical doubt. This is because the problem of undeterminism of scientific theories and hypotheses raise a real issue that cannot just be wished a way. The real issue that the problem of undeterminism raises is the issue of inadequacy of the empirical evidence that we have to confirm a scientific theory or hypothesis as true. The history of the growth of science has shown as that scientific theories are tentative and soon or later a scientific theory is superseded by another superior theory. This fact from the history of the growth of science shows us that the issue that the problem of undeterminism of scientific theories raises is a real issue that cannot be merely dismissed as a case of philosophical doubt.   
2. A critical look at Laudan’s proposed dissolution of undeterminism shows that the Laudan’s dissolution can be used in defence of scientific realism. In his critique of undeterminism, Laudan argued that scientists and philosophers use the term undeterminism in a very loose manner. Laudan went on to argue that due to using the term undeterminism in a loose manner, the scientists and philosophers magnify the problem of undeterminism in science than the problem is. For Laudan, scientific theories are not undetermined in the sense that the theories are wholly undetermined as undeterminism hold, but scientific theories are undetermined only in the sense that the theories cannot be absolutely verified by any set of evidence. For Laudan, although, scientific theories are not absolutely verifiable by any set of evidence, scientific theories, however, are testable and their conclusions are tentative. For this reason, Laudan concluded that scientific theories can give us objective, but tentative knowledge. A critical look at this view shows that Laudan’s dissolution of undeterminism can be used in defence of scientific realism. This is because scientific realism hold the view that scientific theories are tentative and scientific knowledge, therefore, is tentative; Laudan holds the same view.   
3. A critical look at Dunhem’s problem shows that the problem doesn’t really extend to the Quinean holism about about logic, mathematics and science. This is because Dunhem holds that scientific theories are undetermined because it is impossible to test a scientific hypothesis or theory in isolation since scientific theories are interrelated and the test of any scientific hypothesis requires background assumptions. On the contrary, Quinean holism extends beyond science to logic, mathematics and science. For this reason, since Dunhem’s holism does not extend to the Quinean holism because Quinean holism encompasses all disciplines of knowledge while Dunhem’s problem covers empirical sciences only.