

## **Serdal Tümkaya (Middle East Technical University) - Thomas Kuhn and his cumulative progress through scientific revolutions**

It has been frequently claimed that Kuhnian picture of science is the following: (i) According to Kuhn, science is not progressive, (ii) is progressive but not cumulative, (iii) is progressive but not-linear (iv) normal science (cumulatively) progresses but paradigm change is not (or not cumulatively) progressive. All these four mistakes, I try to show, are the results of some other mischaracterizations about some basic elements of the Kuhnian picture of science. For Kuhn, normal science and the notion of paradigm are so closely associated. Therefore, any misperception about one of them would have repercussions on the other. However, because the shattering of normal science through emergence of a new paradigm results in the situation in which scientists have to make paradigm choices, the following problem immediately emerges: If a philosopher mistakes Kuhnian ideas regarding theory choice, then she would easily mistake Kuhnian ideas related to scientific progress, whether it be normal or extraordinary science. Here I argue that Kuhn has defended the existence, importance, and (in a certain sense) the cumulative character of scientific progress, both within normal science and also through scientific revolution.