

社会科学における誘引両立性

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1 Incentive Compatibility (IC)

The relationship between theory and reality in economics seems to exhibit features not typically found in natural sciences, which is why philosophy of experimentation in economics may become a theme worth studying even after studying experimentation in natural sciences[4, 5]. I focus on one of the issues, that I call *incentive compatibility* (IC) of a stable theory, raised in Hausman as well.

While IC is most essential and, at least implicitly, commonsensical for decent theoretical economists, little attention seems to be paid by philosophers, including Hausman himself. In this paper I aim at showing that IC is arguably the most important feature regarding observation and experimentation to be considered in social sciences, which is in analogy with uncertainty principle in quantum physics. I *propose* a happier marriage between theory and experience in economics in Ross[7]'s manner (though my proposal is quite different from Ross's).

2 IC and Falsifiability – On Behavioral Economics

In philosophy of natural sciences, despite the enormous complication regarding the relationship between theory and reality, it is always assumed that the real world continues to possess the features we want to know. The theory is to be tested against reality. It is never the other way around.

IC implies, depending on the features one wants to know about the world, that it may be possibly the real world side that will conform to the theory, after the interaction between the two. I argue therefore the propaganda made by seemingly large proportion of behavioral economists on the raison d'etre of their field – *predictably irrational*[1] – is seriously self-defeating. They should admit that: i) in the long-run thanks to their own findings people will correct mistakes, in which case their findings will lose the predictive power, ii) their science will have had little impact even in the far future such that virtually no one has had the chance to correct their mistakes via learning the research findings, or iii) their definition of rationality is inadequate, such that people have been rational in the first place. I think case i) will continue to be one of the important raisons d'etres of psychology – their function is to teach non-enlightened individuals.

3 IC and Falsifiability – On Economic Theory

As Backhouse[2] argues, economic theory today has little to do with falsification. The most extreme characterization may be economic models as *fables*[8], which I discuss in another occasion. Even for those that seem to be interested in policy advices in the real world, one can define “economics as being the study of rational competitive behavior in any institution of society”[6], although they admit without hesitation that perfect rationality assumption has been falsified.

One positive characterization, that I find useful, for the rationality assumption, possibly along with most other applied mathematics in general, is the relevance and naturalness of the assumption *in each concrete settings*. Instead of seeking for a universal explanation, each concrete model that feel useful in one sense or another survive to be used and cited extensively. This is probably how logical positivists and applied mathematicians differ.

4 Happier Marriage between Theory and Reality

As I argued above, there is little flavor of naturalism in today's economic theory. This looks odd to me, when even in philosophy, foundationalism seems to give way to naturalism. How may IC and naturalism coexist?

I find the concept of subjective cognitive definition of rationality[3] particularly promising. Research programs of *ecological rationality*, the concept used in quite different ways by two schools, constitute best examples [10, 9].

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