

Modelling change in individual characteristics: an axiomatic framework

Franz Dietrich

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Abstract

Economic models describe individuals by underlying characteristics, such as the degree to which they like music, have sympathy, want success, need recognition, etc. In reality, such characteristics change through experiences: taste for Mozart changes through attending concerts, sympathy through meeting people, etc. Models typically ignore change, partly because it is unclear how to incorporate it. I develop a general axiomatic framework for defining, analysing and comparing rival models of change. Seemingly basic postulates on modelling change have strong implications, like irrelevance of the order in which someone has his experiences and 'linearity' of change. This is a step towards placing the modelling of change on axiomatic grounds and enabling non-arbitrary incorporation of change into economic models.

JEL Classification Codes: C0, C7, D0, D8.

Keywords: change, taste, sympathy, altruism, rational choice, axiomatic foundations, dynamic (in)consistency, externalities

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