

Some implications of (non-)ergodicity of psychological processes

Peter Molenaar, The Pennsylvania State University

The standard approach to data analysis in psychology is based on analysis of inter-individual variation. The results thus obtained apply at the level of the population from which the sample has been drawn, but may not apply to any individual in this population. Generalization of results applying at the population level to the level of intra-individual variation (and vice versa) requires the process to be ergodic. I will discuss some implications of this state of affairs, using examples from personality theory (Big Five), brain imaging and application of optimal control theory in longitudinal modeling of inter-individual variation.