

Some Remarks about the History and Philosophical Background of Continuous Time Modeling in Social Science

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First social science methodology just after World War Two is characterized, stressing the strongly cross-sectional orientation and divide between psychology and sociology. Next the impact of Jöreskog is described who by SEM not only combined popular models in psychology and sociology, but gave by means of LISREL also a feasible ML estimation procedure for SEM. The first nonstochastic steps in the introduction of continuous time modeling by Simon, Coleman and Blalock are discussed, the stochastic linear time-invariant state space model is presented as well as the exact discrete model (EDM) and the efforts to estimate the model by means of SEM and SSM in the multi-subject case. Associated philosophical issues circling around simultaneity get attention in addition to more recent developments in continuous time modeling in social science. A final philosophical issue is the significance of the quantum mechanical conception of reality for continuous time modeling.