

## ***Person-Centered Approaches to Data Analysis***

Abstract of talk  
conference on Modeling Developmental Processes in Ecological Context  
in Tempe, Arizona – March 2004

**Daniel Bauer**  
North Carolina State University

Person-centered approaches to data analysis developed out of dissatisfaction with traditional linear models for assessing holistic and interactionist theories of individual functioning. The argument is that traditional linear models (e.g., linear regression or structural equation modeling) typically do not fully account for the possibly nonlinear interactive relationships that emerge when an entire profile of variables is considered in its totality. In contrast, person-centered analytic techniques, such as cluster analysis, latent class analysis, and mixture modeling, are oriented toward identifying a finite set of configurations on these variables. These configurations are then often used as markers of risk for socially undesirable outcomes (e.g., teen pregnancy, conviction for a criminal offense, school dropout, or acquisition of a sexually transmitted disease), with contextual factors potentially moderating this risk. Despite the strong articulation of this theoretical rationale for the use of person-centered techniques, it has never been shown analytically how person-centered techniques actually recover nonlinear interactions. The current presentation aims to provide such a demonstration with a particular focus on the use of finite mixture models to capture interactive effects.