

WF - (20977) - THE IDIOGRAPHIC - UNTANGLING THE CONFOUNDS IN RESEARCH METHODS AND CORRELATIONAL ANALYSES OF ORDINAL DATA

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Expected audience

Physical spaces become places with human actions, events and their effects varying from moment to moment connected through time. A process distinct from construction of space where the law-like properties of materials align building regulations, performance, and design specifications. Strength and flexibility, fire resistance, thermal conductivity, vapour permeability, surface friction and reflectivity, tested objectively through repeating patterns of observations occurring invariantly in closed homogenous systems. An understanding of built environments aspired to in environmental psychology where affect and cognition, and behaviour cannot be predicted through a deductive search in a determinate system. A system where meaning has as many possibilities as there are people, and theory is an empirical strategy for describing knowledge centred on the individuality and uniqueness of phenomena experienced by individuals. The only possibility for a covering law is recognition that people environment interactions is an experience of individuals. An understanding recently arrived at in architectural theory while environmental psychology remains constrained by statistical theories based in closed homogeneous systems.

Researchers routinely face anomalous interpretations from their analyses and fail to replicate results. Data presents with a restricted range of response, or the distributions are skewed. It may be attributed to sampling errors or effects of scale lengths and addressed with data transformations or choice of a different coefficient. In two parts, this paper addresses the estimation of inter-item relationships which serve the interests of multivariate analyses for hypothesis testing and theory building. A computational method for correlation that employs known structural attributes of ordinal response scale formats is presented. The computational method is then applied in a worked example of multivariate descriptive statistics which highlights method effects of measurement of individual differences.

Pertinence and scope of the topics addressed

The investigation of a well articulated research question in environmental psychology is dependent on the assumptions of method and analyses used. To date, where correlational analyses of ordinal data are involved, the assumptions of statistical theory have shaped environmental psychology. As research moves forward in addressing important questions facing this planet, it is essential that the methods and analyses do not distort the validation of theoretical models or bring into question research addressing global challenges of climate change

Appropriateness and interest to the conference and its thematic lines

Relevant to every research analysis of ordinal data in environmental psychology. I put it under the heading of governance, because there are questions to be addressed in the governance of research. research methods and analyses of ordinal data are questioned.

Palavras-chave : ordinal data, correlation, research method, multivariate descriptive statistics, individual differences