

## **An Application of Correspondence Analysis to Social Psychology**

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### **Abstract**

Correspondence Analysis (CA) is a versatile multivariate exploratory data analysis technique. It is widely used across various research domains. In this study, CA is applied to Social Psychology using the Spanish women data set of 2002. We investigate the issue of missing data in CA by creating an additional missingness category for each variable. We further formulate data with missingness due to Missing Completely at Random (MCAR) and Missing Not at Random (MNAR) and compare with complete cases. We also compute Factor Analysis to identify latent variables. The results show that, the missing categories of all variables are isolated in the second quadrant of the correspondence map and the rest of the categories remain concealed and clustered around the centroid. Correspondence map orientates ordinal categories in their natural order. Results obtained from Factor Analysis were in complete agreement with results obtained from CA. We conclude that CA maps can be distorted by missing data and CA is not sensitive to MCAR and MNAR mechanisms. CA can be used to further explain latent variables in Factor Analysis. There are some challenges associated with CA technique, therefore, our recommendations relate to further researches to improve CA.

**Key Words:** column profile, inertia, mass, row profile