

Relationships between two methods for dealing with missing data in PCA

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Abstract Missing data arise in virtually all practical data analysis situations. The problem of how to deal with them presents a major challenge to many data analysts. A variety of methods have been proposed to deal with missing data. In this paper we discuss two such proposals for principal component analysis (PCA) and investigate their mutual relationships. One was proposed for test equating situations (the TE method), and the other is called missing-data-passive approach (the MDP approach) in homogeneity analysis. The two methods are shown to be essentially equivalent despite their different guises. This discussion has some important implication about the centering of data when the data are not missing at random.