

ERRATA FOR “SOME RELATIONSHIPS BETWEEN FACTORS AND COMPONENTS”

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The asymptotic correlations between the estimates of factor and component loadings are obtained for the exploratory factor analysis model with the assumption of a multivariate normal distribution for manifest variables. The asymptotic correlations are derived for the cases of unstandardized and standardized manifest variables with orthogonal and oblique rotations. Based on the above results, the asymptotic standard errors for estimated correlations between factors and components are derived. Further, the asymptotic standard error of the mean squared canonical correlation for factors and components, which is an overall index for the closeness of factors and components, is derived. The results of a Monte Carlo simulation are presented to show the usefulness of the asymptotic results in the data with a finite sample size.

Key words: component loadings, factor loadings, standardized variables, factor rotation, asymptotic correlations, standard errors.

In Ogasawara (2000, pp. 170–171), the term $-\sum_{i=1}^q \frac{l_i}{qm_i}$ in Theorem 1 (see Equations (14) and (15)) should have been $-\sum_{i=1}^q \frac{l_{q-i+1}}{qm_i}$. Also, the term $-\sum_{i=1}^q l_i/qk_i$ in the paragraph immediately following the proof of Corollary 1 (p. 171) should have been written as $-\sum_{i=1}^q l_{q-i+1}/qk_i$.

References

Ogasawara, H. (2000). Some relationships between factors and components. *Psychometrika*, 65, 167–185.