Comparison of estimators of interclass and intraclass correlations from familial data

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Abstract

When familles have different numbers of offspring, Srivastava (1984) gave an alternative approach to deriving the maximum-likelihood estimators of inter- and intraclass correlations, which requires solving only one equation. Since the procedure is iterative and requires considerable computation, several alternative estimators have been proposed in the literature. In this paper, a comparison is made between the maximum-likelihood estimator and two alternative estimators proposed by Srivastava (1984). By obtaining the asymptotic normal distributions of the estimators, it is shown that one of the easily computable estimators is comparable to the maximum-likelihood estimator.