FOX_PATH: A Microcomputer Program for Calculating Indirect, Spurious, and Unanalyzed Effects in Path Analysis

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***Note: Figures may be missing from this format of the document**

Path analysis was first proposed by Wright (1934) as a means for analyzing the path coefficients within noncausal models. More recent texts concerned with regression models (Cohen & Cohen, 1983; Pedhazur, 1982) have devoted considerable space to the statistical methods used for the calculation of path coefficients within the path analytic framework. These regression methods provide the researcher with direct paths between variables, but in the absence of extended analysis, fail to provide information regarding the indirect paths, the unanalyzed effects, or the spurious effects among variables. Fox (1980; cited by Pedhazur, 1982) provided the means for computing indirect, spurious, and unanalyzed effects using a series of matrix manipulations. Pedhazur (1982) recommended the method for complex models; however, Fox (1980) presented the methods in APL (a programming language that is rarely implemented) and offered to send the FORTRAN listing to interested readers. Thus, this valuable method seems to be largely unavailable to those who need to calculate the more subtle effects for complex path analytic models.

Description
FOX-PATH is an interactive microcomputer program that provides the user with the means for calculating indirect, spurious, and unanalyzed effects in path analysis. The user may calculate only the indirect effects, or may proceed to the more involved analysis of spurious and unanalyzed effects as well. The calculation of the indirect effects requires the user to input only the direct effects, whereas the calculation of the other two effects requires the user to input a variance/covariance matrix for the entire set of variables in the model. Output may be directed to either the screen, printer, or text file.

Availability
FOX_PATH is written in Turbo Pascal 5.0 (Borland, 1989) and runs on MS-DOS microcomputers with DOS 2.0 or higher. To obtain a copy of the compiled code and source code send a DOS formatted 5.25-inch or 3.5-inch diskette to William N. Dudley, Medical College of Georgia, School of Nursing, EB 225, Augusta GA 30912, U.S.A.

References
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