

Samuel Shye, *Multiple Scaling: The Theory and Application of Partial Order Scalogram Analysis*, Amsterdam: North-Holland, 1985, pp. xvii – 377.

#### Excerpts from Reviews

“This is a well-written, well-structured book written by an expert in the field ... The author’s style is clear and he writes with enthusiasm and conviction ... the verbal exposition of new material is both meticulous and clear and is further illuminated by worked examples ... I found the book absorbing reading and ... would vote it a success.

... the central aim of POSA-like methods is to obtain a perfect representation of this partial order [on observed profiles] in a minimal space ... A related, indeed dual, aim is to obtain minimal representation of the order relations among these between-test similarities. This can be attempted separately ... or, as the author clearly prefers, in a more integrated way by an interplay between a partial order scalogram analysis (using the POSAC program) and a lattice space analysis (the LSA-1 and LSA-2 programs). The key idea of LSA is to map the tests into a space in accordance with the role that they play in structuring the scalogram ... The relation between the profile and test spaces ... is a fascinating nonmetric generalization of the classical duality between row and column spaces ... Theorems 9 to 11 ... are impressive. The central one establishes that for a standard scalogram, the rank order among test similarities can be perfectly represented in the strong monotonicity sense in a city-block space of dimensionality at most two, whatever the number  $n$  of tests!”

F. Critchley in *J. of Classification*, 1988

“Shye’s book is a major contribution to the scaling literature ... There are a number of examples both in Shye’s book and in recent literature using this technique ... that demonstrate that the “interpretation” question must be considered one, if not *the* major selling point of Partial Order Scalogram Analysis approach (POSA). It can be proven that in “standard scalograms” exactly two (“polar”) tests can be found which partition the POSA space ... The remaining nonpolar tests further refine  $X_1$  and  $X_2$ . Hence, the meaning of the axes is directly related to the tests and shows their respective roles in structuring the concept under investigation.

... Shye’s book represents a rather comprehensive monograph on POSA. It succeeds to solve a set of technical questions ... and brings all kinds of further questions into focus that could serve to stimulate a considerable number of these psychometrics. However, ... the book can be understood by those who have very little mathematical background and/or those who are most interested in substantive research ... In summary, psychometricians as well as substantive researchers would be well advised to familiarize themselves with the important ideas and data analytical ideas developed in Shye’s book.”

I. Borg in *Psychometrika*, 1987

“The author has essentially committed the theory to a body of equations. I view these equations as representing an artificial intelligence solution to the problem ... It is the logical discussion I found most important. The author has succeeded in pin-pointing some very nasty problems in scalogram analysis and then providing reasonable explications of the problems ... I am convinced that these problems have never been addressed directly in the published literature ... It is my opinion that this will be a definitive volume on multi-dimensional scalogram analysis ... Clearly my evaluation of the book would be extremely positive.”

Anonym. Reviewer, 1985