Series Editor's Introduction

The book by Waller and Meehl is quite different from previous volumes in the series. On the one hand, it is strongly grounded in classical psychometrics, and its main historical points of reference are the works of Thurstone, Stephenson, Burt, and Cattell. On the other hand, the major field of application of the techniques it describes has been in psychopathology, typically not one of the most quantitative behavioral disciplines. Finally, there is a very strong philosophy of science component in the book, which is used at various points to motivate the developments and to put them in a larger context. All three aspects are quite unique and contribute to making the book, in my view, a very useful addition to the series.

In one important aspect, the Waller and Meehl book resembles the previous volume by Borg and Shye. The extensive work of Guttman on facet analysis was not available in systematic treatment at the graduate level. Borg and Shye provided such a treatment. In the same way, the important and very extensive taxometric work of Meehl was previously available only in articles and reports. This book provides a systematic and carefully written introduction to that work. It also introduces taxometric techniques developed by Waller for multivariate data.

One of the problems with classical psychometrics is that it has been rather insular, perhaps even somewhat inbred. To varying degrees, the same is true for econometrics and sociometrics. One of the explicit purposes of the series is to place the rather specialized techniques developed in these disciplines within the general context of statistics. Yet, as Waller and Meehl repeatedly point out, this will simply not work if statistics are identified with mathematical statistics or inferential statistics. Again, there is a close connection here with the ideas of Louis Guttman. Modern statistics, as I see it, is technique oriented, computational, and thoroughly and completely applied. The Waller and Meehl book indicates this by including S-Plus programs for most of the techniques discussed. This is a very useful feature worthy of repeating in future volumes in the series.

The taxometric work described in this volume seems to have various connections with other areas in modern computational statistics as yet not fully researched. There are various interesting developments in cluster analysis and mixture modeling that could lead to refinements or modifications of the proposed "coherent cut kinetics" techniques. Relations with structural equations modeling and factor analysis, discussed in detail in this book, could perhaps be exploited even further. The all-important fact is that the aims and basic formulation of multivariate taxometrics have now been clearly and distinctly explained.

Knowing which functions are optimized and how the stability of the results is investigated will make it possible for people working in other areas of social and behavioral statistics to relate these technqiues to their own work, and fit them into their frameworks. I hope and expect that this will lead to exciting developments in this unique intersection of cluster analysis and latent variable modeling.

—JAN DE LEEUW
SERIES EDITOR