The Southern California STATISTICIAN

✧ Meeting Memo and Newsletter ✧

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JUNE MEETING ANNOUNCEMENT

Los Angeles Area Meeting

Who: Professor Bengt Muthen
Graduate School of Education, UCLA

Topic: Structural Equation Modeling with Non-Normal Data

When: Thursday, June 28, 1984
6:00 - Social Hour
7:00 - Dinner
8:00 - Speaker

Price: $10.00 - Regular Members
$8.00 - Full-time Students

Where: The Terrace Room, located in the Dining Commons at the University of California, Irvine.

Directions: The UCI Commons is located next to the Main Library and near the Administration Building. Parking lots 1, 2, 3, and 4 are close to the commons. If you arrive before 5 pm visitors must park in a metered parking stall or pick up a parking permit from dispensers on Bridge Road.

Dinner Reservations: Please place your dinner reservations by Tuesday, June 26 at one of the following numbers:

Orange County Area:

Bob Newcomb (714) 856-5366
856-6807

Los Angeles Area:

Marge Lebsock (213) 475-5700
(BMDP Stat Software)

THE TOPIC

Structural equation (causal) modeling with multiple indicators of latent variables has proven extremely useful for social and behavioral science data. In this type of modeling we will also include exploratory and confirmatory factor analysis and covariance/correlation structure analysis, such as multi-trait multi-method analysis and random effects analysis of variance. However, to a large extent, the latent variable methodology available to date is only suitable for the case of continuous (interval scale) observed variables, most often with the further requirement of multivariate normality, as in the so called LISREL analysis of Joreskog. In many applications, variables are not observed in this form. Continuous variables frequently have limited variability and/or are skewed or kurtotic. Often variables are not even continuous, but have a small number of ordered categories with non-equidistant scale steps (ordinal variables; e.g., Likert scales), and often they are dichotomous (binary). In practice, such cases of non-normality are usually ignored, leading to more or less distorted results.

Recently, however, methodology has been developed to deal with categorical and non-normal continuous data. This talk gives a brief overview of what the state of the art is and describes a small simulation experiment designed to investigate the robustness to non-normality of earlier, normal theory approaches, and the behavior of the more recent alternatives.

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THE SPEAKER

Dr. Bengt Muthen obtained his Ph.D. in Statistics at the University of Uppsala, Sweden, in 1977 and is currently a professor at the Graduate school of Education, UCLA. His research interests include

factor analysis and structural equation modeling involving categorical and non-normal continuous data. He is currently the Principal Investigator of an NSF sponsored project with this theme.

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BUILDING DEVELOPMENT FUND

The American Statistical Association has established a Building Development Fund for a permanent headquarters in Alexandria, Virginia. An economic analysis of this project, written by President-elect John Neter, is to be published in the June issue of AMSTAT News. Chapter members should be informed of these Association plans and consider donating to the Fund.

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FALL MEETING

The first meeting for fall 1984 will be September 28. Mark your calendars in advance!

ADDRESS CHANGES

Anyone moving or changing their mailing address before this fall please send notice of your new address to the editor of the Chapter Newsletter.

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STATISTICAL LECTURES

The American Statistical Association has a Visiting Lecturer Program in Statistics. The program is designed for colleges or universities that do not have well established graduate programs in statistics. The two visiting lecturers from Southern California are C. B. Bell, Professor of Biostatistics and Mathematics, San Diego State University and Robert Bell, Associate Statistician, Rand Corporation. For more information on this program contact:

Bob Newcomb
(714) 856-5366

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