A Scarlet Letter: ∅

Some of you will find attached to this mailing a note in scarlet (well, it's actually 'magenta' on my IDS Prism[TM] process ribbon). It is self-explanatory about your not being a SIG member of record as far as ORSA is concerned. So you have gotten this mailing either because you specifically wrote to me, or because we are sending you complem--entary copies.

Unless you are in a very special category, like Ken Berry, you probably have an abiding, profess--ional interest in decision analysis and hence should be a member of the SIG.

So we would like to encourage you to join the SIG. You do not have to be a member of ORSA in order to do so (though the dues are 66.667% higher for non-ORSA members: all of $5.00 per year rather than the $3.00 for ORSA members!)

The more active and participating members we have, the more dues revenue the SIG will have, to support the expanding slate of activities alluded to by our Chair, Pete Morris, in the last issue, and the result will be a SIG in which membership will be of increasing value to each participant.

On another subject: the number of reports and working papers coming in to the Editor is dwindling. Please clog the pipeline again. (It's much bigger now, and less likely to be clogged!) In order to get your last magna opera listed -- and now within three months of submission --

(Cont'd next column)

just send a copy of each complete report, together with an abstract not exceeding (by much) 200 words to the Editor:

> Dr. Irving H. LaValle
> School of Business
> Tulane University
> New Orleans, LA 70118
> (O) (504) 865-5401
> (H) (504) 899-8110.

Now that we are going to a quarterly basis, the expected time lag between (random) submission and dissemination to the SIG is 1.5 months.

We also list by title and citation articles (etc.) that are appearing in print or have appeared recently, if the reference is not one that the membership typically consults. So please send pre- or reprints of such works as well as reports and working papers. IF THERE IS A CHARGE FOR A REPORT, PLEASE SO INDICATE, AND INDICATE THE AMOUNT OF THE CHARGE.

A final note: we are calling this issue Vol. 2, No. 5 so that our volumes can coincide with the calendar year and thus be consistent with ORSA (and SIG) membership.

Deadline for the January issue: January 1, 1984. Send your literary presents to the Editor at the above address.

He who has best calculated his behavior will win the advantage over those who act in less consequence than he.

-- Frederick the Great

Note observed recently on the bulletin board in the Tulane Business School Student Lounge: HAVE YOU FLIPPED A TREE TODAY?

San Francisco Meeting

Under the deft stewardship of Lee Merkhofer, the following sessions have been organized for the San Francisco meeting of TIMS/ORSA this Spring:

Decision-Analytic Decision Aids: New Directions -- Leonard Adelman
Decision Models for Litigation Analysis -- Samuel Bodily
Decision Analysis in Strategic Planning -- Anand Joglekar
Analysis of Research-and-Development Decisions -- Bruce Judd
Decision Analysis and Analysts in Industry -- Donald Keefer
Decision-Analysis Applications -- Craig Kirkwood
Decision-Analysis Seminar -- Irving LaValle
Environmental-Health Decision and Risk Analysis -- Patricia Owen
Decision Analysis and the Entrepreneurial Spirit -- Burke Robinson
Decision Analysis of Electric-Utility Planning Problems -- Donald Stengel

The seminar session is a new and experimental idea: it will afford an opportunity for researchers to present and discuss what they are currently working on and thinking about, rather than projects more or less completed six months prior to the Meeting.

As at previous meetings, we anticipate several other sessions on related topics. (But, in the last analysis, what isn't related to Decision Analysis?)

Recently Available Reports

From David E. Bell, Morgan 307, Harvard Business School, Boston, MA 02163:

Disappointment in Decision Making Under Uncertainty (Rev. Jun, Aug. 1983). Decision analysis requires that two equally desirable consequences should have the same utility and vice versa. Most analyses of financial decision making presume that two consequences with the same dollar outcome will be equally preferred. However, winning the top prize of $10,000 in a lottery may leave one much happier than $10,000 received as the lowest prize in a lottery. There is an effect on preference caused by comparing the outcome to one's prior expectations and in addition a certain satisfaction to be had simply from winning. This paper explores the implications of disappointment for decision making under uncertainty. Explicit recognition that decision makers may be paying a premium to avoid potential disappointment provides an interpretation of some of the known behavioral paradoxes, a normative explanation for one of the prospect-theory formulations of Kahneman and Tversky, and some new behavioral hypotheses which suggest that decision makers may be sensitive to the manner in which a lottery is resolved.

From Miley W. Merkhofer, Decision Analysis Dept., SRI International, Inc., 333 Ravenswood Ave., Menlo Park, CA 94025:

A Technology Assessment of Public-Key Cryptography. In 1975, a major breakthrough in the science of cryptography resulted in an unprecedented possibility: cryptographic systems with the characteristic that encryption keys (which specify the process for preparing secret messages) may be publicly revealed without compromising security. These new systems are applications of public-key cryptography (PKC), a new technology that may play a major role in promoting the use of cryptography in the private sector. This report describes research directed at two objectives. The first objective was to provide a systematic assessment of PKC technology, its likely consequences, and alternative public policies for dealing with it. Because technology assessments are frequently criticized for not providing information of real use to decision makers, a second objective was established: to explore the applicability of decision-analysis methods to technology assessment. Unlike

the typical technology assessment, the research included the development of a formal, quantitative model of the decision among alternative government policies. Application of the formal analysis provided for explicit consideration of relevant factors and relationships and permitted the identification of critical assumptions and issues. This report presents conclusions concerning PKC technology, policy options, and methodology.

From Robert F. Nau, School of Business, Tulane University, New Orleans, LA 70118:

Should Scoring Rules be "Effective"? Recently, the property of effectiveness has been proposed by Friedman [Mgmt. Sci. 20, 447-454] as a desideratum for scoring rules. The motivation is to strengthen the notion of strict properness by adding a 'monotonicity requirement', through which the scoring rule conforms to an underlying metric on the space of forecasts. This concept illuminates the special qualities of the quadratic and spherical scoring rules, which Friedman shows to be effective with respect to the L_2 metric and the "renormalized L_2 metric" respectively. The question is then posed: "one might like to know which scoring rules are effective with respect to some metric, however exotic -- the case of the logarithmic rule being particularly significant in this regard. Equally, one might like to know which metrics allow effective scoring rules--the case of the L_1 metric being esoecially significant here." This note will derive a necessary condition for a metric to be associated with an effective scoring rule, which is not satisfied by either the L_1 or L_∞ metrics, as well as a necessary condition for a scoring rule to be effective under some metric, which is not satisfied by the logarithmic rule and may not be satisfied by any rule lacking the special symmetry properties of the quadratic and spherical rules. These results suggest that effectiveness may be an excessively restrictive requirement.

Recently Published

Risk Analysis and its Applications, by David B. Hertz and Howard Thomas. John Wiley and Sons.

"Screening Policy Options", by Howard Thomas. Strategic Management Journal 3 (1982), 227-244.

"Risk Analysis and the Formulation of Acquisition/Diversification Strategies", by Howard Thomas. Long Range Planning 16 (1983), 28-34.

"Decisions that Influence Outcomes in the Distant Future", by Patricia Owen. IEEE Transactions on Systems, Man, and Cybernetics, Vol. SMC-13 (1983),1-10.

"Strength of Preference and Risk Attitude in Utility Measurement", by Roman Krzysztofowicz; in Organizational Behavior and Human Performance 31 (1983), 88-113.

"Why Should a Forecaster and a Decision Maker Use Bayes Theorem", by Roman Krzysztofowicz. Water Resources Research 19 (1983), 327-336.

DON'T FORGET TO SEND IN YOUR LATEST WORKS.
ALSO SEND PERSONAL NEWS OF JOB CHANGES AND
RELATED ACTIONS AT DECISION NODES!

NEXT ISSUE: VOL. 3, NO. 1. JANUARY, 1984.