The Mathematical Sociologist

Newsletter of the Mathematical Sociology Section of the American Sociological Association

Spring 2004 Vol 5 # 2

From the Newsletter Editor

Barbara Meeker

This, the Spring 2004 issue of *The Mathematical Sociologist*, contains information about the candidates for Section officers, reminds you to think about Section day at ASA, announces the winner of the Career Achievement Award (congratulations, Tom Fararo) and provides information and programs for other conferences. It also has two comments on the nature, past and future of the field, following on remarks in the last newsletter by chair David Heise.

On the subject of 'what is mathematical sociology?' I sometimes find myself in the position of having to answer this question to mathematicians. Once they get past the 'that sounds like an oxymoron' stage, they are very curious and generally delighted to find that there are sociologists who like and use mathematics. I have found that the most satisfactory way of describing what we do is to say 'mathematical sociology is a branch of applied mathematics, somewhat like mathematical biology'.

Although it has become so only recently, mathematical biology is now an accepted branch of applied mathematics; it uses many of the same kinds of models that mathematical sociologists use (for example, models of population growth and decay, spread of information, networks, computer simulation). We face many of the same theoretical and methodological challenges; for example, the phenomena of interest are often parts of complex systems, varying from one context to another, operating at different levels and with multiple feedback processes. There isn't any single topic, nor any equivalent of Newton's Law. You have to know a lot of biology/sociology to do it. In other words, it's not physics. (M. C. Reed, "Why is Mathematical Biology So Hard?" *Notices of the American Mathematical Society* v 51, # 3, March 2004).

On the other hand, we may share some advantages. As the article by Reed points out, students especially at the undergraduate level are interested in biological (sociological) questions and are excited to find that they can actually apply their math courses to real problems. (In contrast, a student has to be very far advanced in a PhD math program before the opportunity to do original research in pure mathematics occurs). I suggest that mathematical sociology could profit by deliberate coordination with undergraduate math programs. When allowed by the specific university, a double major in math and sociology has advantages for the student and could facilitate communication between departments. Many math departments actually want to attract more majors! Where double majors aren't possible, a major in either math or sociology and a minor in the other might work. Honors thesis projects, internships, and student jobs are other possibilities. [In the last issue of *The Mathematical Sociologist*, Gene Johnsen proposed a Bachelor of Science track for sociology majors; while I think this is a great idea, it will take years to implement even at the most accepting departments and universities. In the meantime, many campuses now allow double majors or have programs of minors that would allow bright students to take both the math and the sociology courses they need. We sometimes bemoan the fact that it is so hard to find sociology majors who are competent in basic math; perhaps we can recruit them from math? Some math majors are interested in taking courses that are of social interest, in doing original research, and in meeting girls, all of which they can do by combining math with sociology.

On the level of our own research, I propose attention to joint conferences or sessions with mathematics, e.g., at the annual joint meeting of the American Mathematical Society and Mathematical Association of American (they have a hypothetical social science section but as far as I can tell, had no such papers presented at the last annual meeting whereas a number of quite interesting mathematical biology papers were presented). Perhaps inviting more mathematicians and/or mathematical biologists to our own conferences?

See you all in San Francisco!

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Remarks on the Meaning of Mathematical Sociology

Tom Fararo

In an earlier section newsletter, [Fall, 2003] Dave Heise set out a series of interesting attempts to provide an answer to the question: "What is mathematical sociology?" I have treated this question in some of my publications and here I will try to outline some of the considerations I have had in mind in thinking about this question.

I have most often tried to treat the question by using an analytical distinction between representation and explanation. Also, I have tried to frame the answer in all generality for any science X in such a way as to regard mathematical X as instrumental to theoretical X, the former specializing in problems of representation, the latter in problems of explanation in discipline X. If the goal of a science is ever more comprehensive and powerful explanations of phenomena, then the use of mathematical systems and their associated methods is a major means toward that goal. Thus, the sub-goal develops in any discipline X to work on such means -- to develop formal modes of representation that enable powerful explanatory theories to be developed. Indeed, a very shorthand definition of mathematical X could be put: Mathematical X is the field of X that specializes in the mathematical methods of theoretical X. Allowing for logical and computational methods as well, one could use the term "formal methods" in this shorthand definition. Also, the methods are not just "there," they are in process – being worked out, revised, challenged, applied, and so forth, so that the specialty includes creative work and not technical cleaning-up operations.

All this does not mean that major theories cannot be developed without mathematics. Certainly in fields such as molecular biology, some powerful explanatory ideas have been worked out without the use of mathematics or any other formal representations -- e.g., the double helix model that was such a breakthrough idea in modern biology. A definition that suggested a field has no theory until it uses mathematics would simply not be empirically valuable if it failed to match such important exemplars of theorizing without mathematical methods.

The distinction can be sociologically explicated in terms of the role concept. Contributions to mathematical X and theoretical X are the differentiated functions of two roles. By the principle that one actor can and usually does perform a number of distinct roles in a social system, one person can perform both of these roles -- all the time or some of the time, simultaneously or sequentially.

But the concept of role differentiation implies that we cannot arbitrarily assume that in any field X, such a functional distinction exists at a given time in its history. Thus, the social structure of a discipline may or may not embody the analytical distinction. Hence, a sociocultural context is relevant to understanding how and to what extent mathematical X is institutionalized in various academic sociocultural systems. Consider, by way of contrast, three such systems: physics, economics and sociology.

Physics. In an established field with a strong theoretical X tradition, the role of mathematical X may be deeply intertwined with the explanatory function, yet still may be distinguished from it. I believe, from a conversation with a colleague in that field, that physicists do recognize a role differentiation. There is also the social fact of a journal of mathematical physics. I would expect it to focus on the sub-goal of theoretical physics: on the "tools" invented and applied in the activity of explaining physical phenomena.

Economics. The body of theory called general equilibrium theory has existed for a very long time but only after WWII, with the work of Arrow, Debreu and others, did it become a mathematical theory with its own internal culture, as it were, in which mathematical economists could make their name by extending its scope or otherwise contributing to its development. Yet, my conversations with colleagues in economics lead me to the view that for many economists this is a sideshow to the main business of economic theory. They respect the beauty of the formal theoretical structures that are created, they recognize how such structures relate to earlier mostly non-mathematical versions of the theory, yet they doubt that the elaboration of the mathematical side of the theory has produced much in terms of the main goal -- as contrasted with the representational sub-goal -- of explaining how a system of interdependent markets actually works. Thus, in this field, there seems to be a distinction between mathematical economics and theoretical economics ("economic theory") but their interrelationship is more problematic than it is in physics.

Sociology. Here we have a disciplinary context in which, at least since the mid-1960s, the role designation "mathematical sociologist" has existed with the main specialist journal arising in 1971. The terminology "theoretical sociology" was also employed at least as far back as the 1960's by Robert Merton and, as I recall, Hans Zetterberg. More recently, Randall Collins authored a textbook with that title, published in 1988 and I employed it as well as part of the title of a monograph appearing a year later. Interestingly, in my terms, problems of representation are included in Collins's text as an appendix that uses the term "methodology." This is very close to my usage, especially in the shorthand form in which mathematical sociology specializes in the mathematical problems of theoretical sociology.

Now let me return to the context of the section. Clearly, in the context of a discipline in which the strongly institutionalized distinction is between "sociological theory" and "sociological methodology," the distinction that I have used involves only a subset of these two related entities: much of "sociological theory" is not theoretical sociology and much of "sociological methodology" is not mathematical sociology. Still, the institutionalized distinction captures part of the distinction that could have emerged if certain trends since WWII had played out differently, i.e., if sociological theory had developed in such a way as to focus more on the explanatory function of theorizing. As
It turned out, we do have theoretical sociology embedded within sociological theory and this gives rise to some confusion in the image of theory in our discipline, both from within and from without. I have tried to deal with this by taking "sociological theory" as an empirical corpus of writings and analyzing it into three interrelated sectors or orientational components: general theoretical orientation, world-historical orientation and critical-normative orientation. The world-historical orientation respects contributions in proportion as they illuminate the major trends of history "in the large," e.g., modernization and globalization as themes. The critical orientation respects contributions in proportion as they reflect "voices" that were not earlier heard and that have something to say in regard to the traditional interpretations of social and cultural phenomena, e.g., feminist theory. My sense of the "social theory" today is that the element of theoretical sociology is far from adequately recognized, and, in a sense, there has been a kind of backlash against it in recent years as the world-historical and critical foci have become more and more the orientations attractive to recruits to sociology. But, if my attempt to explicate "the meaning of mathematical sociology" is at all on target, it suggests that the presence of this representation-focused field within sociology is proportional to the extent of theoretical sociology within sociological theory. Even if there are very strong developments in theoretical sociology that thereby produce the vital context for mathematical sociological contributions, if the proportion of all contributions to sociological theory is more and more in the form of the two orientations (world-historical and critical), the general result will be a sense of non-recognition, the lifeblood of science if we accept Merton's gift exchange model of scientific work.

A possible counter mechanism to the implied diminishing motivation for mathematical sociological commitments is the existence of social networks in which such work is strongly recognized, e.g., networks of people who are committed to theoretical sociology in the form of working on particular theoretical research programs, e.g., expectation states theory, affect control theory, collective action theory, and so forth. And a section of the ASA is a context in which such networks communicate with each other in the form of interpersonal relations whose interaction content presupposes and reinforces a shared value commitment to the standards that are more or less explicit in the collective enterprises of theoretical and mathematical sociology.

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A Comment and a Proposal

John Angle

The 2005 ASA annual meeting is the centennial meeting. The announced theme for the centennial meeting is, naturally, an appraisal of where the discipline is now and how its fortunes might be strengthened going forward into the association's next century. It's an opportunity to remind American sociologists that the discipline's origin is Auguste Comte's agenda to create a science of society as rigorous and mathematical as physics for the purpose of ameliorative engineering. 'Sociology' ['la sociologie' for Comte] was his synonym and contraction of phrase 'la physique sociale'. Thus mathematical sociology, despite the view of it by many sociologists as recent and peripheral, is neither. Mathematical sociology is the core of the founder's vision of sociology. An expression of territoriality and triumphalism, a behavior that might be called 'bugling' in comparative animal behavior?

Sure. Why not? The claim may help some current mathematical sociologist carry on or attract people with talent and enthusiasm to the subject. Particularly if discussions at the centennial meeting about the outlook for the discipline in the association's next century turn pessimistic. Mathematical sociology represents a re-connection with the original source of enthusiasm that led over the course of the 19th century to the emergence of sociology as a recognized academic discipline, first in France, later elsewhere. Insights from the sociology of religion on why religions turn to the history of their early enthusiasm when beset with doubt are probably relevant.

I'd like to organize an informal seminar about Comte's ambition to find a science of society like physics at the centennial meeting. Not to channel Comte's spirit or to review Comte's contribution, but rather to implement his vision of a science of society like physics, or more particularly like statistical physics. The seminar would be an informal, free ranging discussion about research opportunities. Several statistical physicists issued sociophysics manifestos more than thirty years ago announcing their insight into the applicability of much of elementary statistical physics to the social sciences. Their manifestos are remarkably similar to Comte's but they ignore Comte. In fact, the field of sociophysics largely ignores sociology. As you know this lack of interest has been largely mutual. In the last several decades sociophysics and econophysics have emerged as recognized subfields of statistical physics. Well funded journals and research institutes devoted to socio- and econophysics have flourished for decades "over there" in sociophysics and econophysics. There are powerful tools "over there" in statistical physics – well worked out canonical mathematical models and results. These are tools as well worked out as linear regression in econometrics or linear programming in operations research - and the most accessible ones, those taught in an undergraduate statistical physics course, require about the same level of mathematical preparation... Perhaps some of your work in mathematical sociology might fit into one of the canonical models of statistical physics and thus you would have at your disposal a whole set of powerful tools to extend your findings. The seminar I'd like to organize might explore whether there is advantage in venturing across the interdisciplinary barrier, "over there", collaboratively. If you'd like to join this chat at the 2005, let me know. Speakers and audience are not intended to be differentiated.

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Statistician
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Career Award to Fararo

Diane Felmlee

We are pleased to announce that Thomas Fararo, Distinguished Service Professor of Sociology, University of Pittsburgh, has been awarded the Distinguished Career Award in the Section on Mathematical Sociology. Some of the reasons for this award, based on comments from scholars in the field, are documented below.

Professor Fararo launched his sociology career with a dissertation on social networks, and within five years of leaving graduate school he had published his first work on mathematical sociology: "The Nature of Mathematical Sociology," Social Research 36 (1969): 75-92. His life-long overall productivity has been enormous, with more than 75 articles and book chapters, four authored books, four research monographs, and six edited compendiums, plus numerous book reviews and oral presentations. Professor Fararo's characteristic perspective combines a passion for theory with devotion to formalization. In some cases, this has resulted in advances in specific areas, like social institutions, social stratification, or social networks. In other cases, it has resulted in treatises of theoretical integration and meta-theoretical analysis, as in his 1989 Rose Monograph, The Meaning of General Theoretical Sociology: Tradition and Formalization. His textbook, Mathematical Sociology, also influenced the intellectual development of many scholars in the field. For example, according to one distinguished colleague: “His chapters on probability theory and Markov chains provided the technical basis, and more importantly gave me an intuitive understanding of the technical basis, for most of the work that I have done since.” Besides his own writing, Professor Fararo has amplified intellectual production in mathematical sociology by organizing conferences and edited volumes that focused other mathematical sociologists and formal theorists on specific topics. These contributions originated in another of Professor Fararo's flairs as a mathematical sociologist-his numerous collegial relations with others in the sub-discipline. Professor Fararo has co-published with some of the most important other figures in mathematical sociology, including James Coleman, Patrick Doreian, John Skvoretz, and the Japanese sociologist, Kenji Kosaka. Finally, Professor Fararo was one of the Council members of the Section on Mathematical Sociology when the Section was first organized.

Diane Felmlee, Chair, Committee for the Distinguished Career Award in the Section on Mathematical Sociology

Committee Members: Noah Mark, James Moody, David Greenberg, Barbara Meeker

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Elections are Here – Please Vote

Elections for MathSoc Section officers occur along with other ASA offices. You can vote on-line at the ASA page www.asanet.org. (You need your paper ballot control number to log on. Of course, you can send in the paper ballot instead). Votes must be in by **5pm Eastern Time June 1, Tuesday**. Please vote- it’s one of the things that marks our Section as vital even though small that members vote in elections.

We thank and congratulate all Section members who are nominated and willing to run; regardless of who wins, being nominated is an indication of professional respect from your section. The nominations chair was past section chair Noah Friedkin.

Slate of candidates for MathSoc Offices

Name: Scott Feld
Section Office: Chair-Elect
Present Position: Professor, Louisiana State University (1991-Present)
Education: PhD. Johns Hopkins 1976
Offices, Committee Memberships, and Editorial Appointments Held in ASA:
Chair, Rationality and society Section
Council Member, Mathematical Sociology Section
Council Member, Rationality and Society Section
Publications and Professional Accomplishments:
Grofman, Bernard and Scott L. Feld. 2003."If You Like the Alternative Vote (a.k.a. the Instant Runoff), Then You Ought to Know About the Coombs Rule." Electoral Studies.
Feld, Scott L. 2002. "On the Emergence of Social Norms: A Review Essay on Social Norms, edited by Michael Hechter and Karl-Dieter Opp." Contemporary Sociology.
Feld, Scott L. And William C. Carter. 2002. "Detecting Measurement Bias in Respondent Reports of Personal Networks." Social Networks.
Feld, Scott L., Katherine Brown Rosier, and Amy Manning. 2002. "Christian Right as Civil Right: Covenant Marriage and a Kinder Gentler Moral Conservatism" Review of Religious Research.
Feld, Scott L. And William C. Carter. 1998."When Desegregation Reduces Interracial Contact: A Class Size Paradox for Weak Ties." American Journal of Sociology.

Name: David Krackhardt
Section Office: Chair-Elect
Present Position: Professor, Carnegie Mellon University, 1991-present
Education: PhD, University of California, Irvine (1984)

Offices, Committee Memberships, and Editorial Appointments Held in ASA: none given.
Publications and Professional Accomplishments:
Area editor: Computational and Mathematical Organizational Theory; Editor: Journal of Social Structure.
Kravitz, Richard L., David Krackhardt, Joy Melnikow, Carol E. Franz, William M. Gilbert, Andra Zach, Debora A. Paterniti and Patrick S. Romano 2003 "Networked for change? Identifying obstetric opinion leaders and assessing their opinions on caesarean delivery," Social Science & Medicine, 57(12): 2423-2434.
Krackhardt, David, and Martin Kilduff 2002 "Structure, Culture and Simmelian Ties in Entrepreneurial Firms." Social Networks, 24(3): 279-290.
Doreian, Patrick, and David Krackhardt 2001 "Pre-Transitive Balance Mechanisms for Signed Networks." Journal of Mathematical Sociology, 25: 43-67.
Krackhardt, David 2001 "Viscosity Models and the Diffusion of Controversial Innovations" in Dynamics of Organizations: Computational Modeling and Organizational Theory, Alessandro Lomi and Erik R. Larsen (eds.), MIT Press, pp. 243-268.
Krackhardt, David 1999 "The Ties That Torture: Simmelian Tie Analysis in Organizations." Research in the Sociology of Organizations, 16:183-210.

Name: Alison Bianchi
Section Office: Council Member
Present Position: Assistant Professor, Kent State University (2002 – present)
Education: Ph.D., Stanford University (2001)
Offices, Committee Memberships, and Editorial Appointments Held in ASA:
Nominations Committee, Social Psychology Section (2004)
Professional Affairs Committee, Social Psychology Section (2001)
Member of Social Psychology, Mathematical Sociology, Theory, and Emotions Sections (current)
Publications and Professional Accomplishments:
"Activating Performance Expectations and Status Differences through Gift Exchange: Experimental Results." With Elisa J. Bienenstock. Social Psychology Quarterly (2004)
"Formalization and Inference." With Geoffrey Tootell and Paul Munroe. Chapter in Theory, Simulation and Experiment: Theory Growth, Development, and Testing in Group Processes, edited by J. Szmatka, M. Lovaglia, and K. Wysienska. New York: Praeger (2002).
"Understanding the Nature of Scope Conditions: Some Considerations and Consequences, Including Hybrid Theories as a Step Forward." With Geoffrey Tootell and Paul Munroe. In Advances in Group Processes, Volume 15, edited by John Skovertz and Jacek Szmatka. JAI Press. (1998)
Winner of Shils-Coleman Award, Best Graduate Student Paper, ASA Theory Section (2000)
Post-Doctoral Fellow, University of Notre Dame (2001).

Name: Ronald Breiger
Section Office: Council Member
Present Position: Professor, University of Arizona (2000 - present).
Education: PhD, Harvard University (1975)
Offices, Committee Memberships, and Editorial Appointments Held in ASA:
Member of Council, Section on Mathematical Sociology (1997-99)
Member of council, Section on Methodology (1988-91)
Publications and Professional Accomplishments:
Co-Editor, Social Networks (1998-)
"Institutional Logics from the Aggregation of Organizational Networks: Operational Procedures for the Analysis of Counted Data" (with J.W. Mohr, forthcoming in Mathematical & Computational Organization Theory, 2004),
Dynamic Social Network Modeling and Analysis: Workshop Summary and Papers (edited with K.M. Carley, P.E. Pattison; National Academies Press, 2003)
"Lattices and Dimensional Representations: Matrix Decompositions and Ordering Structures" (with P.E. Pattison, Social Networks, 2002).

Name: Peter J. Burke
Section Office: Council Member
Present Position: Professor and Chair, Department of Sociology, University of California, Riverside since 2002
Education: PhD, Yale University (1965)
Offices, Committee Memberships, and Editorial Appointments Held in ASA:
Chair, Social Psychology Section of ASA
Editorial Board, Social Psychology Quarterly

Nominations Committee Mathematical Sociology Section
Publications and Professional Accomplishments:
Cooley-Mead Award for lifetime contributions to social psychology
Social Psychology Section of the ASA (2003)
"Identities, Events, and Moods," Advances in Group Processes in J. Turner (ed.) Advances in Group Processes. Greenwich, Conn.: JAI Press (forthcoming)
"Extending Identity Theory: Insights from Classifier Systems," Sociological Theory (forthcoming)
"Identities and Social Structure," Social Psychology Quarterly (forthcoming)
"Relationships among Multiple Identities," pp. 195-214 in Burke, Owens, Thoits, and Serpe (Eds.) Advances in Identity Theory and Research, New York: Kluwer/Plenum (2003)
"Where Forward-Looking and Backward-Looking Models Meet." (with Louis Gray) Computational and Mathematical Organization Theory 1999, 5:75-96.

Name: Carter T. Butts
Section Office: Council Member
Present Position: Assistant Professor, University of California Irvine (2002-present).
Education: PhD, Carnegie Mellon University (2002).
Offices, Committee Memberships, and Editorial Appointments Held in ASA: Student Council Member, Section on Mathematical Sociology (2000-2001)
Publications and Professional Accomplishments:
Butts, Carter T. (2003). ``Network Inference, Error, and Informant (In) Accuracy: A Bayesian Approach." Social Networks, 25(2), 103—140.
Butts, Carter T. and Hilgeman, Christin. (2003). ``Inferring Potential Memetic Structure from Cross-Sectional Data: An Application to American Religious Beliefs." Journal of Memetics - Evolutionary Models of Information Transmission, 7(2).
Butts, Carter T. and Pixley, Joy E. (2003). ``A Structural Approach to the Representation of Life History Data." Journal of Mathematical Sociology, forthcoming.
Miller, John H.; Butts, Carter T. and Rode, David C. (2002). ``Communication and Cooperation." Journal of Economic Behavior and Organization, 47, 179—195.
Butts, Carter T. (2000). ``An Axiomatic Approach to Network Complexity." Journal of Mathematical Sociology, 24(4), 273-301.

Name: Casey A Borch
Section Office: Student Council Member
Present Position: Graduate Student Instructor, University of Connecticut (2002-present)
Education: MA, University of South Carolina (2001);
Graduate Certificate in Quantitative Methods, University of Connecticut (2004)
Offices, Committee Memberships, and Editorial Appointments Held in ASA: none given.
Publications and Professional Accomplishments:
Broadhead, R., C. Borch, Y. van Hulst, J. Ferrell, W. Villemez, and F. Altice. "Safer Injection Sites in New York City: A Utilization Survey of Injection Drug Users." Journal of Drug Issues, (2003, vol. 33)
Girard, C. and C. Borch. "Optimal Seek Simplified." Current Research in Social Psychology, (2003, vol. 8)
Willer, D., C. Borch, and R. Willer. "Building a Model for Solidarity and Cohesion Using Three Theories." Advances in Group Processes, (2003, vol. 19)
Borch, C. and D. Weakliem. "The Growth of Alienation in America, 1966-2002." American Sociological Association Annual Meetings (2003)
Simpson, B. and C. Borch. "Perceiving Social Structure in Groups." American Sociological Association Annual Meetings, Atlanta (2003).
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ASA

The annual meeting of the American Sociological Association will be in San Francisco **August 14 – 17**. The Mathematical Sociology Section has one paper session, organized by Jim Hollander. There will also be **two** regular paper sessions on Mathematical Sociology, organized by Gene Johnsen. The Section session is listed below; more information about the regular paper sessions will be forthcoming.

Mathematical Sociology Section Session:

1. Yuhsuke Koyama, Tokyo Institute of Technology; Hirokuni Ooura, Teikyo University; and Jun Kobayashi, University of Chicago. ”Exit for Cooperation: A Simulation

Study on Social Dilemmas with Mobility"

2. Joseph M. Whitmeyer and Cynthia N. Yeingst, University of North Carolina. "Modeling Coleman's Friendly Association Networks"

3. Song Yang and Henry Hexmoor, University of Arkansas. "Measuring Optimal Connections in Large Networks: A New Algorithm and Its Applications"

4. M. Hamit Fisek, Bogazichi University; and Stuart J. Hysom, Emory University. "Status Characteristics and Reward Expectations: Test of a Model"

5. Carter T. Butts and Fabio Leite, University of California-Irvine. "Bayesian Inference from Continuously Arriving Informant Reports, with Application to Crisis Response"

Organizer/Presider: James F. Hollander, Texas Instruments

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Also associated with ASA:

JOINT MATHEMATICAL SOCIOLOGY/RATIONALITY AND SOCIETY MINI-CONFERENCE IN CONJUNCTION WITH THE 2004 ASA MEETINGS

San Francisco Hilton
Wednesday, August 18, 2004

David Heise and Scott Feld, the Chairs of the Mathematical Sociology and Rationality and Society Sections respectively of the ASA, invite you to attend a joint Mini-conference sponsored by the two sections and held the day after the ASA meetings at the same hotel.

Speakers

1. Patrick Doreian, Department of Sociology, University of Pittsburgh, "Actor Network Utilities and Network Evolution."

2. Taeko Misumi, Tohoku University, "A Challenge of large-Scale data Sets with Rational Action Theory: Exemplifying Gender-Based Surveys in Japan."

3, James Montgomery, University of Wisconsin, Madison, **"**Individual Adaptations to Cultural Contradictions: The Logic of Merton's Theory of Anomie**"**

4. David Sallach,University of Chicago, "Prototype Inference and Social Rationality."

5. Sun-Ki Chai, University of Hawaii, "A new network analysis of the web."

6. Eric Gleave, Howard T. Welser, and Deborah Vaughan, University of Washington, "Emulation and the Problem of Coordination: Lessons from Simulation"

7. Kunihiro Kimura and Mikiko Shinoki, Tohoku University, "Decision and Justification in the Social Dilemma of Recycling: Rational Choice and Cognitive Dissonance Reduction."

8. Pamela Emanuelson, University of South Carolina, "Flow Networks: An Extension Of Network Exchange Theory"

9. Hirokuni Ooura, Jun Kobayashi, Yuhsuke Koyama, and Naokoa Onizuk, "Free-riders and Mobility: Model, Simulation, Experiment, and Survey"

Please send a check for $60 for registration to one of the two organizers.

Registration for Mathematical Sociology/Rationality & Society Joint Mini-conference

Name____

Affiliation_____________________________________

E-mail_________________________________

Sent in by *Phillip Bonacich*

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And, coming up next year

From *Herm Smith*

The Third Joint Conference on Mathematical Sociology, cosponsored by the Mathematical Section of the American Sociological Association and the Japanese Association for Mathematical Sociology will be held at **Hokkaido University in Sapporo, Japan, June 26 - June 28, 2005.** The official web site is http://www.geocities.jp/rcusjapan/. For information on the conference, or inquiries on possible scholarly contributions, contact the American organizer, Herm Smith, at hwsmith@umsl.edu; or the Japanese organizer, Dai Nomiya, at nqb03710@nifty.com.

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Recent Publications

Yoshimichi Sato, Jun Kobayashi, and others edited a handbook of mathematical sociology, titled Understanding Society with Models (Doba et al. eds, 2004, Tokyo: Keiso Shobo). Though it is in Japanese, it highlights 44 representative models in mathematical sociology. For example, Fararo's model of stratification and Becker's model of marriage.

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Application for Membership in the ASA Mathematical Sociology Section

Name:

Address:

____ I am an ASA member and want to join the Mathematical Sociology Section. Enclosed is a check for $10.00 for section dues ($5.00 for students). Make checks payable to the American Sociological Association.

____ I am not an ASA member but am interested in joining the Mathematical Sociology Section.

Please send me information about joining ASA.

Send to:
American Sociological Association
1307 New York Avenue, NW
Suite 700
Washington, DC 20005
Or, check the ASA website http://www.asanet.org/sections/general.html