SKAT

Science, Knowledge, and Technology Section

Fall 1996 Editors: Jennifer L. Croissant, University of Arizona, Franz A. Foltz, VPI

From the Editors

Greetings from the new editorial team of the SKAT newsletter! After the hiatus of the past year, we have agreed to assemble (but not write) the newsletter, and here is the first edition for 1996-97. The format is not set, and we are looking for input on what section members would like to see in the newsletter. Because this particular edition is rather full-up on backlogged information, there isn't much room for editorials, short analytic pieces, or exchanges, but we intend to develop those possibilities in future editions. We are hoping to re-invent the newsletter as a resource and forum for the section, and we look forward to your contributions to this effort! Please submit suggestions and information by February 15, for inclusion in a spring volume, or by May 15 for the pre-conference summer edition.

We especially wish to thank the contributors to this edition for coming through on such short notice.

Jennifer L. Croissant, University of Arizona,

Franz A. Foltz, VPI

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1996 ASA Business Meeting Minutes

Anne Figert, SKAT Secretary/Treasurer reports the following minutes. President Karin Knorr opened the meeting with the following announcements:

1. Newsletter Co-Editors: Jennifer Croissant at the University of Arizona and Franz Foltz of VPI. Franz will also serve as the SKAT webpage liaison. They will try to get 3 editions of the newsletter out in the coming year. The new editors are looking for volunteers to help with the newsletter. Please contact them.

2. The SKAT-sponsored syllabi set on the sociology of science, knowledge and technology has been updated by Steve Zehr. This 1996 publication of the ASA Teaching Resources Center is now available at a discount to all SKAT members (See below.).

3. Committee Assignments for 1996-1997:

Nominations Committee: Elaine Draper and Laurel Smith-Doerr

Awards Committee: Steve Hilgartner, Lisa Jean Moore and Elaine Draper

Membership Committee: Monica Casper

Publications Committee: Jennifer Croissant, Franz Foltz, Tia DeNora, Kelly Moore, and Thomas Schott

4. A new SKAT lifetime achievement award is being developed. SKAT council decided that the past 4 section presidents will serve on a committee to develop a name and criteria for this award. As the last past president, Lowell Hargens will chair.

5. Elections -- The following persons were elected to the SKAT council: Kelly Moore, Thomas Schott, and Laurel Smith-Doerr (student member). Congratulations were offered to the newly elected. Peter Taylor, Cheryl Leggon & Stefan Timmermans were thanked for their years of service to Council.

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("Minutes" from page 1)

6. Secretary/Treasurer Anne Figert presented her final report on the SKAT treasury and membership.

Assets:	6/30/95	$1,231.42
	9/30/95	$ 679.17
		(reflects $572.25 for 1995 Reception)
	3/31/96	$1,307.17
	6/30/96	$1,341.17

Costs accrued during the year include sending the newsletter and holding the reception for members at the Annual Meeting. This does not include money allocated to help with the publication of the STS syllabi set for the ASA Teaching Resources Center. Steve Zehr, the SKAT member in charge of the revisions, has assured me that the costs to SKAT will not exceed $300 (and should not come close to this number). In exchange for the sponsorship, all SKAT members will receive a discount on the publication.

Membership: Membership remains steady although very close to the 400 member limit needed to support three SKAT sponsored sessions at the Annual Meetings.

10/19/95:	407 members,
4/12/96:	332 members,
7/11/96:	357 members,
8/2/96	360 members.

Membership continues to ebb and flow throughout the year. However, we are behind last year's membership at this time. *Editor's note*: We did not make the minimum of 400 by 10/1 required for three sessions, having only 384 members, and will have only two sessions at the 1997 meeting.

7. Awards: Stefan Timmermans then announced the winners of the SKAT awards (see below). The student paper winner will now be on the next year's award committee. Stefan Timmermans was thanked for chairing this committee as were other committee members Monica Casper, Jennifer Croissant and Elaine Draper. The Sociology and Anthropology Department at Loyola University Chicago also supported the cost of mailing flyers. We are hoping to have future winners of the Merton award participate in an "author meets critics" session at the annual meeting, or to at least have roundtable time for a similar activity, and to reserve space in a newsletter for commentary or remarks from award winners.

Student Notes

Laurel Smith-Doerr, University of Arizona

As the new graduate student SKAT Council member, I have been asked to introduce myself and my plans for representing the graduate student members of SKAT. My name is Laurel Smith-Doerr, and I am a PhD candidate at the University of Arizona. Currently, I am working on my dissertation project, which analyzes the effects of the emergence of biotechnology — a field introducing new technology and organizational forms to drug development — on the career paths of bioscientists. I am also collaborating with Woody Powell and Ken Koput on an industry analysis in which we examine how linkages among elite partners affect biotechnology firms' networks of alliances.

I would like to organize an informal gathering for graduate student members and potential members of SKAT at the Toronto ASA meetings. I hope to meet many of you there. In the meantime, please encourage your colleagues interested in science, knowledge, and technology to join the section. The more graduate student members we have, the more likely we are to bring interesting combinations of diverse interests into SKAT (not to mention that we will get more resources from the ASA as well).

You can help me represent your interests in SKAT by letting me know what is important to you. Contact me through e-mail:

ldoerr@aruba.u.arizona.edu,

or through regular post:

Laurel Smith-Doerr
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1996 SKAT Awards Announcements

Stefan Timmermans, Chair, Awards Committee

Sally Hacker-Nicholas Mullins Student Paper

The winner of the 1996 Sally Hacker-Nicholas Mullins Student Paper Award is Lisa Jean Mooer for her paper "The Technologies of Safer Sex: Latex Devices." Moore provides an insightful analysis of how practitioners reconfigure existing technologies by reshaping their use and meaning in everyday life. Based on interviews with 27 sex workers, Moore demonstrates how latex becomes a tool in the trade of sex workers in the aftermath of the AIDS/HIV crisis. According to Moore, sex-workers re-invent latex technologies as safe sex devices and configure their clients as co-users of the technologies. She argues that the meaning of a particular technology is not only scripted in the laboratory but stabilized in practice. With her unique exploration of an intersection of technology and sexuality, Moore indicates promising paths for science and technology studies to integrate the study of technology in everyday life.

Robert K. Merton Book Award

The 1996 Robert K. Merton Book Award is jointly awarded to Renée R. Anspach for her book "Deciding Who Lives: Fateful Choices in the Intensive Care Nursery," and to Diane Vaughan for her book "The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA." While geared toward different audiences, both books advance sociological insights about the construction of norms and knowledge in organizations, and the complexity of ethical decision making in conditions of uncertainty. Renée Anspach provides an impressive ethnography of how the decision to terminate the life of a neonatal infant, or to continue treatment is shaped by the practical interests of family members, nurses, and physicians. She relates this decision making process of producing assent and diffusing dissent to the social structure of the neonatal intensive care unit. Based on her analysis, Anspach addresses the paradox posed by investment in high technologies to correct defects and the paucity of resources allocated to research in preventive care and nutrition. She argues for a more equitable and just distribution of society's resources. Diane Vaughan chronicles the events leading up to NASA's decision to launch the Challenger space shuttle in 1986, and event that had disastrous consequences for both the crew and the space program. Vaughan criticizes the commonly held view that the disaster was caused by production pressures and managerial mistakes, arguing instead that NASA as an organizational culture is characterized by high risk technology and bad decision making. She shows how a refusal to acknowledge problems became normalized and therefore acceptable to those in power. Both books are carefully documented, colorful, challenging, and must-reads.

Please send announcements and news to either of the Newsletter editors. Submissions for the late March/early April newsletter should be sent to the editors no later than February 15, 1997. Materials for inclusion in the summer pre-conference newsletter should be received by May 15, 1997. You may contribute electronically (please do not encode files), by regular post, or fax.

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1995 Robert K. Merton Award Remarks from the Recipient
Stepping on the Toes of Giants

Michael Lynch, Brunel University

When I got word that my book Scientific Practice and Ordinary Action had been selected for the 1995 Robert K. Merton Prize I was both pleased and surprised. Please for the obvious reason that it is an honor to receive an award named after a giant of modern sociology. Surprised because ethnomethodologists like me have been less known for standing on the shoulders of giants than for stepping on their toes.

Not very long ago, Merton's name was synonymous with an orthodoxy that the "new" sociology of scientific knowledge opposed. We often read that Merton's sociology of science was insufficiently critical of positivist ideals, that it ignored the content of science, and that it was a sociology of scientists rather than of science. These simplistic criticisms were often unfair to Merton and his colleagues, but there can be no question but that they marked a shift in the sociology of science toward close historical and ethnographic studies of scientific practices. "Constructivism" has become the buzz-word of the day, and some would call it the new orthodoxy. Now it appears to be the case that constructivists are on the hot seat, fending off accusations of being settled, complacent, dogmatic, of going too far into relativism, and of aiding and abetting anti-science. I guess we have made progress. In keeping with the ethnomethodological tradition, my book tries to make trouble for constructivism now that this many-headed and many-toed giant looms large on the academic landscape.

As I understand it, the central claim of new sociology of science is that facts, methodological protocols, accepted theories, internal communicative practices, instruments, and all other contents of the natural sciences are socially constructed. Sometimes the prefix "socially" is dropped, because it suggests a skewed vision of the co-construction of nature-technology-society. Either way, I think that what is meant by "construction" remains profoundly unclear for proponents and critics alike.

I think there are at least two ways to think about the central claim that the contents of science are socially constructed. One is to treat it as an empirical proposition that has been supported (or not) by a body of historical and ethnographic case studies. So, for example, laboratory ethnographies and historical case studies can be said to demonstrate empirically that experimental replication is problematic, theories are underdetermined by evidence, facts are theory-laden, and natural knowledge is supported by, and extended through, networks of power. A second way to address the claim that science is socially constructed is to explicate what the claim might actually mean. This is closer to what I set out to do in Scientific Practice and Ordinary Action. This latter approach may seem to turn our attention away from empirical study in order to set up a meta-theoretical approach or philosophical discourse, but that is not what I have in mind. Instead, I propose that constructivist studies should (and to an extent already do) investigate the central topics and concepts of epistemology, but in a way that is neither sociological nor philosophical in the usual sense.

Unlike the older traditions in sociology of science, studies of scientific practice stay close to a philosophical conception of what scientists do: instead of framing scientific activities with a comprehensive theory of social institutions, ethnographers and social historians examine how scientists conduct experiments, how mathematicians prove theorems, and how members of a discipline debate possible naturalistic explanations. Unlike philosophers, social historians and ethnographers of science treat cases less as illustrations for general arguments and more as primary materials for

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Book Notes: A random & selective review of books published in 1996 that should be of interest to sociologists of science, knowledge, & technology.

Kelly Moore, Department of Sociology, Barnard College, Columbia University.

Please send book announcements, short reviews, or suggestions for topics, or your own reviews.

Several young sociologists of science have recently published engrossing and well-informed works on socially important subjects. Anne Figert's *Women and the Ownership of PMS: The Structuring of a Psychiatric Disorder* (Aldine de Gruyter, 1996) traces the origins and implications of the American Psychiatric Association's 1986 decision to include PMS in an appendix to its Diagnostic and Statistical Manual of Mental Disorder. Figert provides a compelling and well-supported analysis of how an illness gets defined. Especially interesting are her shrewd and perceptive insights about how a "normal and healthy woman" is defined.

Diane Vaughan's *The Challenger Decision: Risky Technology, Culture, and Deviance at NASA* (University of Chicago Press, 1996), winner of the 1996 SKAT book award, is a terrific sociological analysis of the organization of technology, and how our faith in complex technological systems can have disastrous and unpredictable outcomes. Finally, look for Steven Epstein's *Impure Science: AIDS, Activism, and the Politics of Knowledge*, (University of California Press), scheduled to be published in November 1996.

Having recently participated in a contentious panel discussion entitled "The Internet: So What?," I'm now a devotee of works on the social aspects of the Internet and related technologies. New works include Stephen Doheny-Farina, *The Wired Neighborhood* (Yale University Press, 1996); David Morely and Kevin Robins, *Spaces of Identity: Global Media, Electronic Landscapes and Cultural Boundaries* (Routledge, 1996); David A. Porter, ed., *Internet Culture* (Routledge, 1996); Byron Reeves and Clifford Nass, *The Media Equation: How People Treat Computers, Television, and the New Media Like Real People and Places* (Cambridge University Press, 1996). A much broader treatment of new technologies and social life is Donna Haraway's exhilarating and fascinating *Modest_Witness@Second_Millenium. FemaleMan.©Meets_Oncomouse™: Feminism and Technoscience*(Routledge, 1996), which considers, among many other subjects, how technologies configure race and gender, and how gender and race configure technology. Henry Petroski's *Invention By Design: How Engineers Get From Thought to Thing* (Harvard University Press 1996) is also highly recommended; it is one of the finest pieces of work on engineering to come along in recent years.

Of course, new technologies mean that old ones may fall by the wayside and that new social relations emerge. These themes are explored in *The Future of the Book*, ed. by Geoffrey Nunberg (University of California Press 1996), and in Lawrence K. Grossman's *The Electronic Republic: Reshaping Democracy in the Information Age* (Penguin 1996), which examines the political implications of new technologies in America.

New international and historical analyses of scientific knowledge and culture include David R. Oldroyd's *Thinking About the Earth: A History of Ideas in Geology* (Harvard University Press 1996). Oldroyd's work is a broad (at times, too broad) analysis of conceptions of the earth, and efforts to control, explore, and use it. Baber Zaheer's *The Science of Empire: Scientific Knowledge and Colonial Rule in India* (SUNY Press, 1996) and Theodore M. Porter's *Trust in Numbers: the Pursuit of Objectivity in Science and Public Life* (Princeton University Press, 1995) deserve attention for their careful and important analyses of science and state-building. *The classic Genesis and Geology* by Charles Coulston Gillispie has been re-issued, with a new forward by Nicolaas Rupke, and a new preface by the author (Harvard University Press 1996); *Possessing Nature: Museums, Collecting, and Scientific culture in Early Modern Italy* by Paula Findlen has been

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1997 ASA SKAT Program Sessions

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We will organize only two regular sessions this year, because of our decline in section membership. We will use half of the time allotted for the business meeting for a Refereed Roundtable Session: Panels and Organizers for the sessions and roundtables are as follows:

1. "Technology, Expertise and Political Protest":
Open submissions.
Organizer:

Kelly Moore, Department of Sociology, Barnard College, Columbia University, 3009 Broadway, New York, NY 10027-6598.
Phone: (212) 854-3039.
Fax: (212) 854-7491.
E-mail: Km104@Columbia.edu

2. "Gender, Science, and Technology"
Co-sponsored with the Sex and Gender Section.
(but to count against SKAT's allocation):
Open submissions.
Co-organizers:

Josephine Beoku-Betts, Department of Sociology, Baldwin Hall, Athens, Georgia, 30602 .
Phone: 706-542-3217
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Mary Frank Fox, School of History, Technology, and Society, Georgia Tech, Atlanta Georgia
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3. "Refereed Roundtables." (1 hr counts against time allotted for business meeting)
Organizer:

Judith Perrolle, Dept. of Sociology, Northeastern University, 360 Huntington Avenue, Boston, MA 02115.
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Calls for Papers/Competitions and Announcements:

The Society for Social Studies of Science Annual Meeting is to be held in Tucson, Arizona, October 22-26, 1997. Program information and abstract submission are available electronically through Program Chair Jen Croissant's Web page, (http://www.u.arizona.edu/~jlc). Those interested in presenting a paper at the 1997 Annual Meeting of 4S should submit 150-200 word abstracts no later than March 1, 1996. Those considering organizing sessions should please submit abstracts of all papers together.

SKAT Awards announcements will be forthcoming for The Sally Hacker-Nicholas Mullins Student Paper Award, and the Robert K. Merton Book Award in a future newsletter. Even at this early date please alert students and publishers or authors about the possibility of submitting works to these competitions.

Syllabi and Instructional Materials for the Sociology of Science, Knowledge, & Technology:

Stephen Zehr has edited the newest edition of the American Sociological Association's Teaching Resources Center Syllabi and Instructional Materials for the Sociology of Science, Knowledge, & Technology. If you are interested in obtaining a copy, the cost is for $14.50 for ASA members, $18.50 for non-members and $13.05 for SKAT members. The stock number of this edition (for ordering purposes) is 343.S96. Send your request to: American Sociological Association, Teaching Resources Center, 1722 N Street NW, Washington, DC 20036. This edition includes seven chapters of course syllabi covering the following topics: sociology of science; technology and society; sociology of knowledge; science, technology, and gender; environment, energy, and risk; and computerization in society. The contributions to this set represent a broad spectrum of approaches and incorporate diverse literatures. This collection should prove valuable for people who are teaching a course in this area for the first time, as well as for those who are looking for new ideas for their existing courses. We are hoping to make some version of the volume available on line, or at least be able, through the SKAT Web Page (see below) to point out links to available teaching resources and syllabi compilations.

("Merton Award" from page 4)

what it means to replicate experiments, agree upon facts, or make precision measurements under specific circumstances. SSK takes its topics and concepts from philosophy, but it proceeds to address them with empirical materials. I have no idea if such natural-philosophical investigations will vindicate the ideal of a progressive social science, and I am not concerned about that. At present, the mode of investigation I advocate does not set out to prove general, causal propositions or to provide a knowledge-base for instrumental programs.

My understanding of SSK's agenda is framed by my interest in ethnomethodology, and I do not suppose that it appeals to everyone. To many of my colleagues in social studies of science, it seems too modest and insufficiently comprehensive. Fortunately, there are a few fellow-travelers whose work encourages me to think that I am not heading up a blind alley. Certainly, I would want to acknowledge ethnomethodological studies of science and mathematics by Harold Garfinkel and Eric Livingston. In this vein I should also mention studies by Wes Sharrock and Graham Button on software engineering, Doug Macbeth on elementary science lessons, and Kathleen Jordan on the uses of molecular biological protocols. In my view, these studies provide a basis for critical, mutually-respectful dialogues with proponents of other ethnographic and interpretive approaches (for example, Harry Collins, Karin Knorr-Cetina, Bruno Latour and Steve Woolgar). Something that is not widely appreciated is that ethnomethodologists are beginning to work with historical materials. For example, Dusan Bjelic is finishing a book on Goethe's and Galileo's demonstrations, and Eileen Crist will soon be publishing a book that explicates how historical descriptions of animal behavior are infused with vocabularies of action and understanding. I also think there is further potential for developing strong connections with work in the history of science by Steven Shapin, Simon Schaffer, Andrew Warwick, and many others on the production of precision measurement, the standardization of practice, and modes of dispute resolution. In as much as scientific analogies, together with received wisdom about observation, theorizing, and measurement, are part of sociology's "core" pedagogy, I believe that sociologists ought to pay attention to such work on situated epistemic practices.

I have no desire to set overall directions for social and cultural studies of science. I would prefer to think that my studies, and the others I have mentioned, can shed light on some of the impasses, confusions, and endless arguments in our field. Although the idea that science is socially constructed may have become a slogan and starting point for studies today, I do not think that we can afford to consolidate the lessons from prior studies in order to move on to the next step. The terrain we inhabit may not permit such a steady march forward. We are likely to stub our toes if we stop wondering about what in the world we mean by the "construction" of scientific knowledge.

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issued in paperback (University of California Press 1996) making it an affordable addition to the libraries of assistant professors and grad students.

Several terrific books on the sociology and culture of medical science are newly in print, including Joan H. Fujimura's superb *Crafting Science: A Sociohistory of the Quest for the Genetics of Cancer* (Harvard University Press, 1996); Ilana Lowy's *Between Bench and Bedside: Science, Healing, and Interkeukin-2 in A Cancer Ward* (Harvard University Press, 1996); and *AIDS and the Body Politic: Biomedicine and Sexual Difference* by Catherine Waldby (Routledge 1996). Science, power, and boundary demarcation are themes in much of the work in the sociology of science, technology, and knowledge. Several new books speak directly to these issues. These include Evelyn Fox Keller and Helen Longino, eds. *Feminism and Science* (Oxford University Press 1996); *Naked Science: Anthropological Inquiry Into Boundaries, Power, and Knowledge,* ed. by

Laura Nader (Routledge 1996); *The Disunity of Science: Boundaries, Contexts, and Power*, ed. by Peter Galison and David J. Stump (Stanford University Press 1996). Several new books on demarcating homosexuality; some of the most interesting are *Science and Homosexualities,* ed. by Vernon A. Rosario (Routledge, 1996) and Simon LeVay, *Queer Science: The Use and Abuse of Research Into Homosexuality* (MIT Press, 1996). Barbara Laslett, ed., *Gender and Scientific Authority is a collection of articles from Signs*, (University of Chicago Press, 1996). A range of views on the sociology of science and cultural studies of science (as well as a fine example of boundary work in action) may be found in *The Flight From Science and Reason*, edited by Paul R. Gross, Norman Levitt, and Martin W. Lewis (New York Academy of Sciences, 1996).

Last, but not least, several new works will be useful to those who teach courses on science, technology, knowledge, and related subjects. *Scientific Knowledge: A Sociological Analysis*, edited by Barry Barnes, David Bloor and John Henry (University of Chicago Press, 1996) is a terrific introduction to the subject that ought to prove popular in undergraduate and graduate courses. Greenhaven Press' popular "Opposing Viewpoints," "Current Controversies," and "At Issue" series' have several new titles of interest: *Global Warming, The Environment, Abortion, Health and Fitness, Animal Rights, Genetics and Intelligence*, and *The Spread of AIDS*. Christopher P. Toumey has recently published *Conjuring Science: Scientific Symbols and Cultural Meanings in American Life* (Rutgers University Press, 1996). Toumey's highly readable book examines how symbols of science are used in settings from policy making to television commercials to confer authority. The book will be of most use to those teaching introductory-level courses.

Publishing opportunity:

Springer-Verlag would like to handsomely reward a scholar of science for writing a book about Alan Sokal's Social Text hoax. Contact Teresa Sheilds, Acquisitions Editor, if you are interested.

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