
CONNECTIONS

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NETWORK NOTEBOOK

In This Issue

Harrison White (in his role as Stephen Dedalus) shows how to think about organizational interfaces, and then James Lattin & M. Anthony Wong shows us how to cluster them algorithmically. We give you a vaster than usual number of abstracts and new book announcements, plus news from the FBI and the Bell Telephone underground. Read carefully--you never know who may be watching!

New Computer Editor

John Sonquist is taking over as CONNECTIONS' Computer Editor. He wants lots of business on programs, uses, implementation techniques. Write him at the Sociology Dept., University of California, Santa Barbara CA 93106 (tel: 805-961-3118). And thanks to our retiring editors: Ronald Breiger and Philip J. Stone.

New European Editor

Hans Joachim Hummel is now our new European Editor. Hans is anxious to increase INSNA's activity in Europe--papers, memberships, get-togethers. It's a difficult and complicated job--so contact him if you'd like to help at the Sociology Dept., University of Duisburg, Duisburg 1, D-4100 West Germany.

Social Networks Re-Boards

SOCIAL NETWORKS, our loosely-affiliated journal, has reorganized its formerly large Editorial Board into a small Board of Associate Editors: Larissa Lomnitz, J. Clyde Mitchell, Barry Wellman, Harrison White, and Rolf Zeigler. Linton Freeman continues as Editor.

Parsons Lives at Harvard/English Thrives at Cambridge

Peter Killworth is the winner of our Harvard "Structures and Strategies Conference translation contest," (see CONNECTIONS 4(3):5). Here's his winning entry:

There's going to be a meeting sometime this year at Harvard, but nobody knows exactly when. (Ed.'s note--we still don't.) If you're a doctor or a professor, don't bother applying--you're too clever. The meeting's about people and what they do when social scientists study them. If you want to come, you have to write something. Don't make it too long, as you won't be able to afford the postage to send two copies to us (if you could afford it, you'd be a doctor or a professor with a grant; see above). If what you send us looks clever, we may pay you. If so, some guy called Parsons is to blame; but don't worry --he's dead.

A Fine Fellow

Nancy Howell (Sociology, Toronto) has been elected as a Fellow of the American Association for the Advancement of Science; i.e., "a Member whose efforts on behalf of science or its applications are scientifically or socially distinguished." Howell was cited "for innovative research on the demography of hunter-gatherer societies, which has thrown new light on human evolution." For Californians who want to congratulate her personally, Nancy is visiting Cal.-Berkeley's Anthropology Department thru June 14.

In Peace and War . . . and Network Analysis

Supervisory Special Agent Roger H. Davis of the FBI's Behavioral Science Unit has joined INSNA. (So watch your language.) He writes: "I am interested in network methodologies and their application in examining criminal conspiracies. From an intelligence analysis standpoint it seems to me that networking can be a useful aid. I am enclosing a copy of an article which I think will provide you a bit more specifics of some of the practical applications of networking that I see possible (see Abstracts, this issue--Ed.). I would appreciate hearing your ideas on the law enforcement applications. I am also interested in contacting others doing similar work and I hope to identify some of these people through INSNA."

Be the first in your cluster to be busted by a block-model!

Semiotics and Structures

The University of Toronto has a lot of interesting structuralists coming to its Summer Institute for Semiotic and Structural Studies, 31 May - 26 June 1982. The 15+ courses include: Michel Foucault (The discourse of self-disclosure), Karl Pribram (Brain and meaning), Roland Posner (Comparative semiotics: Language in relation to other sign systems). Information from Paul Bouissac, Toronto Semiotic Circle, NAB 305, Victoria College, 73 Queens Park Crescent E., Toronto M5S 1K7.

Grant-Getting

Two SSHRCC Strategic Grants for Ageing Studies have gone to network folk: K. Victor Ujimoto (Sociology, Guelph) and Harry Nishio (Sociology, Toronto) for "Comparative Aspects of Aging Asian Canadians: Social Networks and Time Budgets" and Barry Wellman (Sociology, Toronto) for "Community Through the Life-Course."

June Corman (Sociology, Toronto), Gordon Laxer (Sociology, Toronto), and Gail Greer (Sociology, Queens, Ontario) have all won SSHRCC Postdoctoral Fellowships. Greer's work was specially noted in SSHRCC's press release: (She) "will be investigating the social and economic impact of micro-electronic information technology on Canadian organizations. She will analyse worker and organizational adaptation, task and occupational restructuring and productivity in service industry organizations that have adopted information technology."

Winning SSHRCC Sabbatical Leave Fellowships are Y. Michal Bodemann, Harriet Friedmann, A. Ronald Gillis, and Jeffrey Reitz (all Sociology, Toronto), and Gavin Smith (Anthropology, Toronto).

(I know this looks like Toronto chauvinism, but we really have cashed in recently, and nobody else is sending us news. Ed.)

US National Science Foundation network/sociology grant winners are:
 Jose Cobas (Arizona State), Middleman economic activity and ethnic solidarity;
 Heinz Eulau (Stanford Pol. Sci.), Network analysis of representation;
 Edward Laumann (Chicago), The social organization of national policy domains;
 Naomi Rosenthal (SUNY-Old Westbury), Social networks and social movements: a dynamic analysis;
 Charles Tilly (Michigan), Social change and collective action;
 Sharon Zukin (Brooklyn), Responses to economic decline in selected American industries;
 Scott Boorman (Yale), Mathematical models of social networks: matching, efficiency and structure;
 Christopher Chase-Dunn (Johns Hopkins), World division of labor and the development of city systems:
 a longitudinal cross-national study;
 Clifford Clogg (Penn. State), Demographic indicators of underemployment, 1969-1980;
 Karen Cook and Richard Emerson (U. of Washington), Experimental studies of exchange networks and corporate groups;
 Barbara Laslett (Southern California), Demographic and economic determinants of family form and function;
 Robert McGinnis (Cornell), Networks of basic and applied research communities in agricultural science;
 Harrison White (Harvard) and Ronald Breiger (Cornell), Markets and organizations: applying mathematical models to social structures and processes;
 Erik Olin Wright (Wisconsin), Dimensions of social inequality in modern Western societies;
 Peter Blau (SUNY-Albany), Effects of metropolitan social structure on intergroup interaction;
 and a dissertation research grant to J. Hunter Mica/Thomas Fararo (Pittsburgh).

Alternative Explanation for Cost of Dean's Brain (see CONNECTIONS 4(3):4)

"When asked about the high cost, a spokesman said 'That's Deans' brains--they've never been used.' (Contributed by H. Russell Bernard.)

Info Flows

Robert Bezilla now Vice-President of the Gallup Organization (Gallup polls, et al.) . . . Charles Jones moving to Sociology, University of Toronto . . . John Delaney has left academia for the Minneapolis business world . . . Constantina Safilios-Rotschild moved to the Population Council, NYC . . . Ronald Burt to Columbia as Associate Professor, 9/82 . . . Susan Greenbaum now Visiting Assistant Professor at South Florida . . . H. Russell Bernard the new AMERICAN ANTHROPOLOGY editor. . . Nicholas Mullins nominated for the ASA Theory Section's Chair-elect post . . . Barry Wellman and Michael Burawoy nominated to run for their Council . . . Albert Hunter, Jacqueline Scherer and Barry Wellman running against each other in the ASA Community Section's Chair-elect contest . . . Joseph Galaskiewicz running for their Council . . . Harriet Friedmann elected to ASA's World-Systems Section Council . . . Nancy Brandon Tuma new editor of SOCIOLOGICAL METHODOLOGY . . . Charles Kadushin featured on CBC Radio's "The Natural History of a Book" (15 March 82)--for more on Charles' own book, see our new book section, this issue . . . Reinhard Mann died in 1981 at the age of 33--his manuscript on the Dusseldorf resistance movement will be published posthumously.

Beware of Nine-Year-Old Kids (of Network Analysts)

"Why does he keep defining the easy words like 'peer group'?" (overheard at Sunbelt Conference)
(Contributed by Shana Salaff.)

Opportunities Available

The American Public Health Association is seeking short-term (2-8 week) medical sociologists to consult in less-developed countries. Must have 3 years LDC experience. Write Myrna Seidman, Chief, Technical Advisory Services, APHA, 1015 15th St., NW, Washington DC 20005.

The Indo-U.S. Subcommittee on Education and Culture is offering longterm (6-10 months) and shortterm fellowships to US citizens with doctorates. Pays \$1200 monthly stipend, research allowance, and international travel, with possible travel and aid for dependents. Write (by 1 July 1982) to Indo-American Fellowship Program, Council for International Exchange of Scholars, 11 Dupont Circle, Suite 300, Washington DC 20036 (202-833-4985).

The Center for Demography and Ecology (Wisconsin) is offering \$13,800+ Postdoctoral Fellowships (to experienced demographers/ecologists who need specialized training, and to social scientists who want to get into the d&e business. Candidates need not be US citizens, and are invited to study population dynamics in any region of the world or any population topic. Send vita, statement of interests, tentative research-training program, and names of 3 references to Karl Taeuber at the Center, Univ. of Wisconsin, Madison WI 53706. Some predoctoral traineeships also available.

Help Wanted

William Rohe (City Planning, North Carolina) is working on a study of the influence of informal social control in neighborhoods on neighborhood crime. He is also looking at the relationship between social cohesion, informal social control, and the development of formal neighborhood organizations. Please send him info about recent work in the area.

Ethnic Research

York's Ethnic Research Program has information available on two projects (IBR, York University, Downsview, Canada M3J 1P3):

"Inter-Ethnic Relations in a Northern Ontario Mining Community (Timmins)" - will have four reports by this summer (Gerry Gold).

"Visible Minority Businessmen in Toronto" - has a report on an exploratory study of firms owned by businessmen who are members of a visible minority. Three areas have been examined: the contribution these businessmen are making to the Toronto business community; how the businesses operate; the problems the proprietors have had as a result of their ethnic background (Darla Rhyne).

More Thoughts on Reading Referees' Comments

"When a true genius appears in the world, you may know him by this sign, that the dunces are all in confederacy against him" (Jonathan Swift, THOUGHTS ON VARIOUS SUBJECTS, MORAL AND DIVERTING, as quoted in John Kennedy Toole, A CONFEDERACY OF DUNCES).

Journal News

PLAYBOAR is the new magazine for Canadian pig breeders.

TAP is "the newsletter for the exchange of anti-system technical information." Considerable information on the ripoff of telephone companies, electric power companies and other utilities is explored in each issue. Technology of the articles runs from very basic to complex (including advanced integrated circuits). Information provided on such subjects as lockpicking, dealing with vending machines, hooking up free cable TV, phony IDs, TWX, phone phreaking, computer phreaking, free postage, free photocopying, etc. Subs (\$7) from TAP, Room 603, 147 W 42 St., New York NY 10036.

JOURNAL OF COMMUNITY ACTION links researchers and practitioners thinking about citizen action and neighborhood development. Publishes research, debates on issues and strategies, reports on new projects and ideas, book reviews. Send to Richard Rich (Political Science, Virginia Tech., Blacksburg VA 24060). Subs (\$18) from Box 42120, Northwest Station, Washington, DC 20015.

ENVIRONMENT & PLANNING D (SOCIETY & SPACE) will promote the development of social theory in human geography, and will attempt to strengthen the relationship between theory and empirical work. Info from Michael Dear (McMaster).

JOURNAL OF URBAN AFFAIRS is multidisciplinary, and aimed at practitioners, policy makers, and scholars. It seeks manuscripts which develop theoretical, conceptual, or methodological approaches to metropolitan and community problems, present substantive results, and evaluate social change strategies and tactics. Subs. (\$12) and mss to Patricia Edwards (Environmental & Urban Systems, Virginia Tech., Blacksburg, VA 24061).

RISK ANALYSIS is published by the Society for Risk Analysis. Subs. (\$30) and mss to the Society, Box 531, Oak Ridge TN 37830 (an appropriate HQ site!).

RARITAN offers a critique of contemporary culture, especially of those relations of power which create, shape, and define events in literature, criticism, the arts, politics, popular entertainment, and the sciences. It inquires into the language of cultural experience, the terms in which intellectual authority is claimed for aesthetic and social practices and intentions. Information from: Raritan, Rutgers Univ., 165 College, Ave., New Brunswick NJ 08903 (subs. \$12).

ENERGY AND SOCIETY is interdisciplinary, and dedicated to "exploring the broad spectrum of contemporary social issues raised by energy production, distribution, and consumption. Info from George Daniels, Program in Science, Technology, and Society, Michigan Technological University, Houghton, MI 49931.

HUMANITY AND SOCIETY will have a 1983 thematic issue on Technology and Society. Papers should focus on social conflicts over the course of technological development and the effects of such development on social structure. Send paper proposals immediately to Henry Etzkowitz, Sociology Dept., Univ. of Colorado, Boulder CO 80309.

CURRENT PERSPECTIVES IN SOCIAL THEORY (an annual) will devote a portion of the next two volumes to "structuralism." Mss to Scott McNall, Sociology Dept., Univ. of Kansas, Lawrence KS 66045.

INTERNATIONAL JOURNAL OF SOCIOLOGY AND SOCIAL POLICY is the "reoriented" (and relocated) Scottish Journal of Sociology--with widened subject matter. Editor, Ron Parsler (Univ. of Stirling). Subs. (£9.85) from Barmarick Publications, Enholmes Hall, Patrington, Hull HU12 OPR, England.

MONTHLY RESEARCH ABSTRACTS FROM TURKEY summarizes economic and social research activities and publications. Subs. (US \$200) from ESDA, 26/1 Kibris Sok., Cankaya, Ankara.

AFRICAN JOURNAL OF SOCIOLOGY will appear biannually. It aims at providing a forum for the advancement of sociological thinking and writing about Africa. "After decades of gestation inside the walls of the African universities, a distinct sociological message is emerging." Mss and subs. information: Mauri Yambo, Sociology Dept., Univ. of Nairobi, Box 30197, Nairobi, Kenya.

CUADERNOS DE CONOMIA SOCIAL provides information on current problems and tendencies in historical processes--with special concentration on co-operatives, public enterprises, and the economic organization of unions. Subs. (US \$15) to (1093) Moreno 1729, Buenos Aires, Argentina.

Probably the Worst Network Joke We've Ever Printed

Mark Granovetter went to a South Asian restaurant. A short waiter stumbled nearby, while carrying a large bowl of soup. "Whew!" said Granovetter, "Thank God for the strength of weak Thais."

Centre for Research on Social Organization, University of Michigan

1981 papers from the Centre include:

- Leslie Page Moch, "Adolescence and migration: Nimes, France, 1906." *Social Science History* 5:25-52.
- Charles Tilly, "Stein Rokkan's conceptual map of Europe," CRSO# 229.
- Charles Tilly, "Britain creates the social movement," CRSO# 232.
- Charles Tilly, "Protoindustrialization, deindustrialization, and just plain industrialization in European capitalism," CRSO# 235.
- Bert Useem, "Center-periphery conflict: elite & popular involvement in the Boston anti-busing movement," CRSO# 224.

Class Conflict & Collective Action, Louise Tilly & Charles Tilly, eds. (Beverly Hills, CA: Sage)

Brian Brown, "Industrial capitalism, conflict, & working-class contention in Lancashire, 1842."
 Samuel Cohn, "Keeping the navvies in line: variation in work-discipline among Victorian railway construction crews."
 Frank Munger, "Contentious gatherings in Lancashire, England, 1750-1830."
 Wayne Te Brake, "Revolution and the rural community in the Eastern Netherlands."
 Charles Tilly, "Introduction" and "The web of contention in 18th-century cities."
 Louise Tilly, "Women's collective action & feminism in France, 1870-1914."

Ecclesiastes 4: 9-12

If one prevail against him, two shall withstand him; and a three-fold cord is not easily broken (contributed by Anna Alton).

LATE NEWS!!! Third Sunbelt Conference Plans

The third annual Sunbelt Social Network Conference is scheduled for February 11-13, 1983, at the Bahia Resort Hotel, Mission Bay, San Diego, California. The conference is sponsored, in part, by INSNA and the University of California-Irvine. Registration: \$30 for INSNA members, and \$15 for students—all others \$35. Tentatively the meeting will begin Friday afternoon with a keynote address and then divide into two simultaneous sessions for the rest of the conference. Tentative sessions and Chairs are Demography (Nancy Howell and Davor Jedlicka), Dependency Theory (Pat Doreian), Mental Health (Richard Gordon, Mansell Pattison, and Diane Pancoast), Sociology of Science (Ron Burt), Advances in Network Models and Algorithms (John Sonquist), Network Data and Methods (Russ Bernard and Alvin Wolfe), Research Reports (Brian Foster and Gary Hurd), and Poster Sessions. Luncheon Roundtable sessions being organized by Kim Romney, currently to include Teaching Networks (Everett Rogers); Exchange Theory; Community Power; Organizations; and Communications Research.

To submit paper titles contact session organizers or Douglas R. White, Social Science, California-Irvine, California 92717 (tel.: 714 833 5893/6582). For more information or roundtable nominations, contact A. Kimball Romney (Anthropology, Irvine), tel.: 714 833 6979. Preregister with Rosemary Johnson, Secretary, School of Social Science, California-Irvine, California 92717 (tel.: 714 833 6582).

MORE LATE NEWS: Susan Haggis Rides Off into the Sunset

Our intrepid Associate Editor & Co-ordinator, SUSAN HAGGIS, is leaving at the close of this issue to take up an administrative position at the Faculty of Law, University of Toronto.

Susan has held us all together with care, concern, and charm. Undoubtedly we will never have such deftly-written dunning letters again.

But we will carry on, somehow.

In the interim, KAREN ANDERSON will be co-ordinating and editing things.

NO COMPLAINTS PLEASE!!!

Some folks, instead of writing lots of papers and books, send us complaint notes wondering where CONNECTIONS and SOCIAL NETWORKS are:

1. If you're wondering where CONNECTIONS is, you're on page 5 of the first issue of 1982. (Yes, I know it is May.) Remember, CONNECTIONS is a labour of love, and sometimes we have to wait until we have the time and energy. So send us lots of articles and abstracts, but hold the complaints.
2. SOCIAL NETWORKS is obviously behind schedule. Volume 3 No. 4 has just come out, and we haven't seen any sign of Volume 4, No. 1...and they have less excuse, since a big multi-national publisher puts it out and a big Dean edits it. (Maybe he'll write and tell us what's what.)

But all we do is send your subscription money on, we have nothing to do with editing or publishing the journal. So send your complaints directory to the publisher: North-Holland Publishing Co., Molenwerf 1, P.O. Box 211, 1000 Amsterdam, The Netherlands.

MEETING CALENDAR

SIMMEL

A colloquium on Georg Simmel will be held in June in Bielefeld, West Germany. For information, contact Heinz-Jürgen Dahme, Fakultät für Soziologie, Universität Bielefeld, Postfach 8640, 4800 Bielefeld.

CANADIAN SOCIOLOGY & ANTHROPOLOGY

The annual Canadian Sociology and Anthropology Association meetings will be held 6-9 June at the Université d'Ottawa. Selected sessions (and paper-givers) include:

- 6 June:** Sex, Gender and the Reproduction of Labour Power in Advanced Capitalism (Livingstone, Secombe, Luxton); Socio-economics (Greer-c, Blute, Novak, Rush); Ethnicity & Interethnic Relations in a Northeastern Mining Town (Gold-c, Vasiliadis, Lame, Giacomo).
- 7 June:** Feminist Approaches to Family Studies (Nett, Baker, Jacobson); Intersections of Marxism with Sociology: Paradigms & Problems (Bodemann-c, Daniels, Goodman, Dickinson); Political Economy of Communications (Morrow, Kopinak, Raboy); Data Bases for Hierarchical, Network or Text-Oriented Data and Other Non-Standard Data Structures: SAS, SIR and Beyond (Jones-c, Carrington & Wellman, Denton & Davis); Sociology of Canadian Jews (Schoenfeld-c, Glickman, Bodemann); Sociology of Work (Jones-c, Hunter & Manley, Minai, Smucker);
- 9 June:** Quality of Life in Canada (Davis-c, Atkinson & Murray, Rhyne, Matsui).

PERSONAL RELATIONSHIPS

An international conference on personal relationships will be held 18-23 July at the Sociology Dept., Univ. of Wisconsin. Information from Steve Duck, Psychology Dept., Fylde College, Univ. of Lancaster, Lancaster LA1 4YF or Robin Gilmour (Psychology & Social Relations Dept., Harvard Univ., Cambridge, MS 021380).

Sessions:

19 July: Communication processes in the initiation, maintenance and dissolution of interpersonal relationships: Charles R. Berger, "Social cognition and the development of interpersonal relationships"; Arthur Bochner, "Dialectical processes in interpersonal relationships"; Mary Anne Fitzpatrick, "Marital interaction processes: recent theoretical and empirical advances"; William Rawlins, "Communication processes in the growth of cross-sex friendships"; Gerald R. Miller & Margo Marie Senter, "Honey, vinegar and the sweet sorrows of parting: selecting communication strategies for achieving dissolution."

Friendship Behaviour:

James P. Flanders, "Household televiewing as a behavioural sponge which competes with personal relationships and generally wins"; Steven Jay Lynn, Larry Gorkin, Judith Rhue, Michael Nash, Steven J. Sherman, "Self disclosure: Normative information vs reward-cost factors"; Barry McCarthy, "Dyads, cliques, and conspiracies: friendship behaviours and perceptions within long-established social groups"; Sally Planalp, "Cognitive processes in interpreting relational implications of messages"; D. Siegel, "Attributional bias in close relationships: 'mind-reading' in couples"; Paul T. P. Wong & Valerian J. Derlega, "An attributional analysis of self disclosure."

Types of relationship:

Wyndol Furman, Duane Buhrmester & Wendy Ritz, "Qualitative features of sibling relationships"; Harold P. Gershenson, "A description of the relationships of white adolescent mothers with their own mothers"; Maureen Hallman & Steven Smith, "Determinants of cross-race friendship choices"; John Reisman, "Toward the meaning and measurement of friendliness"; Paul H. Wright, "The Acquaintance Description Form: new developments."

Poster session:

Gerald R. Adams, "A dialectical-interactional perspective to the social psychology of physical appearance"; Dorothy Miell & Steve Duck, "Strategic styles in attraction and acquaintance"; Mary Anne Fitzpatrick, "A typology of marital relationships: predicting communication in ongoing relationships"; Julie Indvik, "The variable nature of relationships at work: the influences of job level, career stage, and competence on peer and superior-subordinate relationships."

20 July: Charting the development of relationships:

Leslie A. Baxter & William W. Wilmore, "A longitudinal study of communication in same-sex and opposite sex relationships"; Steve Duck & Dorothy Miell, "A structured diary of the development of relationships"; M. A. McLaney & J. J. Steffen, "An exploratory analysis of relationship development"; Alexis J. Walker, "A longitudinal-sequential study of casual dating relationship."

Processes of growth in relationships:

Rodney M. Cate & F. Scott Christopher, "Factors involved in premarital sexual decision making"; Howard J. Markman, "Recent advances in social cognitive and social skills conceptions of the development of close relationships: have we reinvented the wheel?"; Gerald Marwell, Kathleen McKinney, Susan Sprecher, Stevens Smith & John Delamater, "Legitimizing factors in the initiation of heterosexual relationships"; Greg J. Neimeyer & Robert A. Neimeyer, "Personal constructs in the development of relationships: some conceptual and empirical refinements"; Malcolm R. Parks, "The role of network factors in the development of romantic relationships."

The social context of premarital and marital relationships:

Robert M. Milardo, "Interdependent relationships: lovers and friends"; Elliot Robins, "Social Networks of newlywed husbands and wives"; Catherine A. Surra, "From courtship to marriage: Patterns of interaction between partners and their social networks." Duscussant: Michael P. Johnson.

Friendship in childhood and adolescence:

Grazia Atrili, "The development of relationships in pre-school children: child-child and adult-child relations"; Wyndol Furman & Tish Willems, "The acquaintanceship process in middle childhood"; Reed W. Larson, "Family and friends as contrasting interaction systems in the daily lives of adolescents"; Sherri Oden, Sharron Herzberger, Peter Mangione & Valerie Wheeler, "A developmental study of peer relationship formation."

Poster session:

Joel B. Bennet, "The changing nature of interpersonal processes: A model for viewing interdependence in and over time"; Colin Brydon, "From play to talk to trust: The development of adolescent friendships"; Phil Erwin, "Similarity of attitudes and constructs in children's friendships"; Robert Hays, "Growth and change in developing friendships"; Michelle Landberg, "Age, self concept and sex as predictors of friendship expectations in adolescence"; Mary Lund, "The development of commitment to a close relationship"; Harriet Sants, "The relationship between patterns of friendship, self concept and conceptions of friendship in young children."

21 July: Loneliness:

Jenny DeJong-Gierveld, "Loneliness and the degree of intimacy in personal relationships"; Peter Favaro & Ruth Formanek, "Living but lonely: children complain about their friends"; Warren H. Jones, Bruce N. Carpenter & Diana Quintana, "Interpersonal and personality predictors of loneliness in two cultures."

Disordered relationships:

Bram Buunk, "Jealousy: some recent issues and findings"; Elizabeth A. Lopez, "Help that is not helpful: a look at depressed individuals and their close relationships"; Harry T. Reis, "Determinants, consequences and characteristics of social relationships."

Poster session:

Wyndol Furman, Diane Buhrmester, Phillip Shaver & Tish Willems, "Changes in relationships and social networks during the transition to college"; Steven Jay Lynn, Anne V. Peterson, John Garske & Judith W. Rhue, "A study of homophobia and intimacy between males."

22 July: Research strategies in the study of disengagement:

Tom Berndt, "Why do children's friendships end? Problems with levels of analysis"; Brian Bigelow, "Disengagement and the development of social concepts"; Leslie A. Baxter, "Disengagement as a process rather than an event"; John J. La Gaipa, "A longitudinal approach to relational change."

Antipathy, rivalry, conflict and disregard:

Colin Brydon, "Enemies exist. But friends . . .?"; Bram Buunk, "The role of extramarital relationships in the divorce process"; John H. Lewko & Brian J. Bigelow, "Children's personal accounts of the formation and dissolution of friendships through sports"; Miriam J. Rodin, "Some empirical correlates of disregard: who's invisible to whom?"; Helgola Ross, "Adult sibling rivalry"; Valerie A. Wheeler, "Reciprocity within first grade friend and non-friend dyads in a conflict-of-interest situation."

Repairing relationships:

Kathryn Dindia, "Relationship rejuvenation;" Howard J. Markman and others, "The short-term results of a cognitive behavioural program for premarital couples designed to prevent marital distress"; Clifford I. Notarius, "Toward a model of behaviour change in marital therapy"; Roelf Jan Takens, "On the nature of the psychotherapeutic relationship."

COMMUNICATIONS AND THE FUTURE

The World Future Society's 4th General Assembly meets 18-22 July in Washington, D.C. (Sheraton Washington Hotel). It includes a panel on "Telecommunications Networking" which includes Roxanne Hiltz, Peter & Trudy Johnson-Lenz, Jessica Lipnack & Jeffrey Stamps, Robert Theobald, Ivan Frisch and Lee Wright (19 July).

AMERICAN SOCIOLOGY

Program details of the American Sociological Association annual meetings are still sketchy (6-10 Sept., San Francisco). Some announced sessions of interest are:

Rethinking the Nature of Urban Life (Lyn Lofland, Gerald Suttles, Claude Fischer, Manuel Castells, Richard Sennett).
 Dilemmas of Development (Gerhard Lenski, E. H. Cardoso, Alejandro Portes, Immanuel Wallerstein, Marion Levy).
 Kin Structures & Household Units (Rae Lesser Blumberg, Bernard Farber, Frank Furstenberg, Jr., Barbara Laslett, Andrew Cherlin).
 The Making & Unmaking of the State (Theda Skocpol, Reinhard Bendix, Gianfranco Poggi, Michael Hechter).

plus two round table discussions organized by the ASA's Theory Section:

1. Individual, Family & Gender in Current Theory (Harold Benenson & Chiara Sarcena):

Some underlying assumptions of new-Weberian and neo-Marxist class theories appear increasingly problematic for the development of a fully social conception of class relationships. These center on the problem of the proper unit of class analysis, and the relation of individuals and families to class systems. Two deficiencies are common to otherwise heterogeneous class theories. First is the assumption that labor participants (or income-earners, economic actors, etc.) can be treated as abstract individuals, whose extra-economic relationships (particularly as defined by family modes of life and gender divisions) are unimportant or derivative. Second is the premise of a unitary mode of connection between the class system and the family unit via the adult male breadwinner.

We wish to examine: 1) the extent to which these assumptions in fact characterize contemporary theories; 2) the adequacy of such assumptions as the family and gender bases of class relations change; 3) the connection between these assumptions and substantive shortcomings of major approaches; and 4) the alternative ways of conceptualizing relationships between individual activity, family processes, and gender divisions as elements of class theory.

2. Toward a Theory of Friendship (Ruth Wallace, George Washington U.):

A number of contemporary theorists are working toward an understanding of the phenomenon of friendship in rapidly changing societies. With high geographic mobility in modern societies, where encounters with friends are less frequent and briefer, friendships now take on new forms and new meanings. The analysis can be sharpened if we draw on insights from classical as well as from contemporary theorists. We can understand the present better if we can recombine and update the components of the theoretical visions of the classical sociologists, some of whom (e.g., Tonnies, Simmel, Durkheim, Weber, Mead, and Cooley) recognized the importance of friendship in their own times, even though they may not have analyzed it explicitly.

CYBERNETICS

The annual meeting of the American Society for Cybernetics will be 18-20 Oct., in Columbus, Ohio. It will overlap with the American Society for Information Science meetings. Send program proposals to John Hayman, Hayman Assocs., Box 1626, Clanton, AL 35045.

SOCIAL SCIENCE HISTORY

The Social Science History Association will hold its annual meeting 4-6 Nov at Indiana Univ. The association brings together scholars who use theories and methods from social science disciplines for historical research. Program information from Elyce Rotella, Economics Dept., Indiana Univ., Bloomington, IN 47405 (812-337-1021).

*PAST CONFERENCES**QUANTITATIVE HISTORY*

An international assessment of Quantitative History was held 4-6 March, Washington, D.C. Conference topics included Mass Data, Methods, Theories, International/Comparative. For information contact Konrad Jarausch, History Dept., Univ. of Missouri, Columbia MO 65211.

COMPUTERIZATION IMPACTS

IFDO, the International Fed. of Data Organizations, and IASSIST, the International Association for Social Science Information Service & Technology met in Grenoble, 14-18 Sept. In the broad range of conference topics, "it became obvious that data archiving nowadays means more than handling survey data; that data archives have more and more to cope with historical, process-produced aggregate and textual data. New or remodelled data management and documentation have to be applied to cope with the problems these data pose. Conference abstracts (90 Fr.) available from Banque de Donnees Socio-Politiques, B. P. 34, F-38401 Saint Martin d'Heres, France. (Source: Quantum 21.)

COMPUTER-BASED CONFERENCING SYSTEMS FOR DEVELOPING COUNTRIES

A workshop on this subject was held 26-30 Oct. in Ottawa, Canada. (Proceedings available from the International Development Research Centre, Ottawa.)

Conference Conclusions:

We expect that in the next decade the use of computer-based conferencing systems (CBCSs) in developed nations will become a major vehicle for domestic and international scientific and technical information exchange.

We believe that the provision of adequate and reliable CBCSs to serve the scientific and technological communities nationally within developing countries and internationally among them and with developed countries would greatly contribute to the successful development of these communities.

It is our belief that unless the developing nations can participate in this electronic community of science and technology they will suffer from a disenfranchisement of a serious nature.

We perceive the threat of scientific and technical disenfranchisement to be twofold: first, the lack of access to the resources of the developed nations and, second, and perhaps more important, the inability to gain timely access to results and techniques found in the developing nations themselves.

Increasingly, international research is being undertaken in such areas as forestry (the proper utilization of biomass resources), agriculture (the development of nonplantation resources), and bioengineering (interdisciplinary synergies that interact with the above). Computer-based conferencing would greatly assist the participation of developing nations in these and other international areas of research by enabling them to obtain and exchange scientific and technological information and contribute innovations and information to the world-wide scientific community.

We perceive the technical requirements for full and effective utilization of international computer-based conferencing for any country to consist of the availability of CBCSs, availability of reliable domestic and international telecommunication facilities and services, indigenous technical expertise in computer-based conferencing, and domestic implementation of universally accepted procedures for CBCS interconnection. Additionally, we see the administrative requirements for full and effective utilization of international computer-based conferencing for any country to be effective representation to ITU and relevant committees in compliance with their procedures; the existence of indigenous applications expertise; an informed approach by government to transborder data flow policies in relation to scientific and technological information; the existence of a governmental focal point for facilitating the implementation of computer-based conferencing and the existence of a professional organization with the objectives of promoting indigenous expertise, identifying communication needs, and ensuring international representation in professional forums.

SUNBELT SOCIAL NETWORK CONFERENCE

Held 12-14 Feb. in Tampa. (Next year: Laguna Beach, California.)

Also see Abstracts section.

- J. A. Barnes (Cambridge), "Modelling: for real or for fun?" (to be printed in CONNECTIONS)
- Alvin Wolfe (Anthro., South Florida), "Improving communication among theorists & practitioners."
- Susan Greenbaum (Anthro., South Florida), "Bridging ties at the neighborhood level: weak or multiplex?"
- Gary Hurd & Bonnie Jenkins (Medical College of Georgia), "Applications of graph centrality in psychiatric diagnosis."
- Douglas White (Soc. Sci., California-Irvine), "Status entailment structures and roles as regular block-models: representation of social structure."
- Peter Marsden (Soc., N. Carolina) & Edward Laumann (Soc., Chicago), "Models of integration & microstructural analysis."
- David Matula (Comp. Sci., So. Methodist), "Cluster validity by concurrent chaining."
- David Knoke (Soc., Indiana), "Organizational sponsorship of social influence associations."
- Karl Reitz (Soc. Sci., California-Irvine), "Graph homomorphisms applied to definition of roles."
- Paul Holland (ETS) & Samuel Leinhardt (SUPA, Carnegie-Mellon), "Stochastic blockmodels."
- Malcolm Dow (Anthro., Northwestern), "Network autocorrelation: small sample properties."
- Peter Carrington (Soc., Toronto) & Greg Heil (Comp. Sci., Toronto), "Another new algorithm for finding block-models."
- John Sonquist (Soc., California-Santa Barbara), "Problems in getting computer software for network analysis cranked up and usable at your installation."
- John Boyd (Soc. Sci., California-Irvine), "The computation of relations satisfying semigroup constraint."
- Patrick Doreian (Soc., Pittsburgh), "Polyhedral dynamics & labor disputes."
- Linton Freeman (Soc. Sci., California-Irvine), "Euclidean representations of graphs."
- J. Miller McPherson (Soc., S. Carolina), "A hypernetwork approach to the study of community organization."
- Ronald Rice (Comm., Stanford), "Longitudinal system structure & role occupancy of research groups using a computer conferencing system."
- Ronald Burt (Soc., California-Berkeley), "Medical innovation again: relational vs positional norms."
- John Jessen (Comm., Stanford), "Communication networks as social support in a New England small-boat fishing village."
- Joung-Im Kim (Comm., Stanford), "Testing the strength-of-weak-ties hypothesis in diffusion networks."
- Debra Martin (Soc., Minnesota), "Time as a variable in communications network analysis."
- Lisa Berkman (Epidem., Yale), "Social networks: what are the health consequences?"
- Evelyn Bromet (Epidem., Pittsburgh) & Joseph Zubin (Biometrics, VA-Pittsburgh), "Exposure to stress, social network characteristics & mental health: an analysis of the effects of the Three Mile Island accident."
- Sidney Cobb (Cmty Health, Brown), "An approach to the relationship between social networks, the sense of social support, and health."
- Stephen Suomi (Psychology, Wisconsin), "Social network influences on development in rhesus monkeys: a transactional model."
- Bonnie Erickson (Soc., Toronto), "An urban voluntary association: a 1st report."
- Gary Hurd (Medical College of Georgia), "Networks and patient decisions about medical care."
- Noah Friedkin (Ed., California-Santa Barbara), "Consensus in social circles and structurally equivalent positions."
- Ronald Burt (Soc., California-Berkeley), "Disentangling relational contents as people perceive them."
- Jeff Johnson (Intercoastal Marine Resources, E. Carolina) & Marc Miller (Marine Studies, U. of Washington), "Fishermen's nets: ethnic relations in an Alaskan coastal community."
- Janet Salaff (Soc., Toronto), "The differentiating effects of social class on interaction in extended households."
- A. Ronald Gillis (Soc., Toronto) "Friends, relatives & strangers: the cognitive structure of the willingness to intervene."
- Michael Minor (Pacific Institute for Evaluation & Research), "Multiplexity and support networks."
- Gill McCann (Soc., Vermont), "Material entailment analysis of a scientific revolution."
- Larissa Lomnitz (Anthro., Mexico), "Urban resettlement in Mexico."
- Raymond Bradley (Soc., Minnesota), "Toward an integrated theory of relational analysis."
- Susan Greenbaum, "Acquaintanceship patterns of ethnics & non-ethnics."
- Martin Denoff (Soc. Sci., Tampa), "Length of hospitalization & patterns of adult schizophrenics."
- H. Russell Bernard (Anthro., Florida), Peter Killworth (Appld. Math., Cambridge) & Christopher McCarty (Anthro., Florida), "Index: an informant-defined experiment in social structure."

RESEARCH REPORTS

INTERFACES

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Introduction

The first question should be why our topic, organizations, looms so exceedingly small in the main ranges of social science theory. I think the answer is that the existence of organizations is regarded by many theorists as contributing only frictional effects, minor disturbances. It is instructive to probe the presuppositions that divert effort from measures of organization.

It is not that main line theories deny the existence of "organizations as actors or agents in the process of social change," to use the words of our convenors. A major current vehicle for institutionalist objections to the mainline is Managerialism as revived and extended by Chandler (1969, 1977) and others. Managerialists insist on the boundedness and the self-absorption of the organization, which takes on the self-sufficient aura of a Hollingshead Elmtown. Mainline theorists can accept this, either so long as there are processes of creation and dissolution, or of entry and exit for these organizational actors under environmental press, or else in the special case where the organization is a Sovereign State.

Mainline theories rely on averages; they construe average flows as driving the social system with enough pressure to overcome what are thought of as minor institutional rigidities thrown up by organizations. I think this theme is common across otherwise disparate theories: Marxists see cumulating pressures which, though they may change the system eventually, are effective at once in establishing first-moments, just as the centerpiece of neoclassic economics is the thoroughly linear General Equilibrium Theory (Arrow and Halm, 1971). I argue that we play into this view if we reify organizations each as an actor in a generalized environment about which it speculates.

Variances, not means, and indeed variances rubbing against one another are the basis of the control profiles from which we precipitate out organizations as reifications. A boundary is a social "act," an act hard to keep together and sustain; it is not a skin. I propose that we throw out the term altogether in social system analysis because it is so misleading, such an inappropriate borrowing from natural science. "Interface" is a term with appropriate connotations, especially that any "dividing line" in a social system is a two-sided affair which must be actively created, perceived and reproduced on each side, in order that there be a demarcation. Interfaces sustain themselves on differences among variances.

Markets are not marked off from firms in the perspective I advocate, for all are ways of talking about interfaces, in strings and other concatenations imbedded in and making up a particular chunk of economy. In three recent publications (White 1981 a, b, c). I have worked out a family of specific models for a particular form of interface which describes many markets in the sale of goods by a set of producers of differentiated products. There is a mismatch in size between constituent flows on producer and buyer sides, and there results a strong asymmetry. The market interface can be described as a one-way mirror. Producers are watching the trace of each others' actions, are seeing each other in the reflection from the terms of trade sustained by myriad flows of purchase from the other side. The other side looks through this mirror interface to the particular products and their terms they wish, without being concerned with each others' actions.

All actions are decided in terms of directly observable acts and on criteria of self-interest. The models make it clear that such interfaces, as terms of trade, sustain and reproduce themselves only as profiles which turn out to balance off dispersions among producers costs (across volume and across quality) against dispersions among buyers' valuations. Thus, a market is not driven by some average need on one side or the other, nor by some convergence of aggregates averages, called Supply and Demand, but rather by a matching of variances possible from any of a wide range of profiles.

That is but one type of interface, and one applied to an economic empirical context. Below I shall sketch variants plus an entirely different class of interfaces dealing with interpenetration rather than confrontation. I suggest that the same dependence on the second order, on variances across constituents will apply in all. Persons work through interfaces, and work to be in interfaces and work at interfaces, and in all these senses an interface is an envelope of the actions different individuals on each side take with

respect to one another's perceived actions. The fact that it is an envelope reflects an interface's being an aggregator, a gearer of constituents into an overall pattern, a locale for conversion from "micro" to "macro." But this is no mechanical act, no cultural fiat. People don't get taught by cultural code to make interfaces in concrete social systems; people learn to do so from the social presence of interface terms perceived by them as external, though seen by observers as being in a sense negotiated. It should be clear that I am trying to draw practical lessons concerning large systems from the great advances in social phenomenology of recent decades (Garfinkel 1967, Goffman 1963), advances too long confined by implication to small groups and intimate settings.

The organizational, I am saying, is the peculiarly social aspect of large social systems. It excludes the speculative psychological features appealed to by some of economic theory, and it excludes the cultural, imposed regularity postulated by some political science. Rhetorics, of course, are there as the frame in which people talk, talk often about speculations; but measures of organization should focus on those profiles of observable acts which lead participants to reconstitute through continuing acts the profile. It is suitable to name these profiles "control profiles," whether or not they are especially open to conscious shift by particular subsets of actors.

Let me cite a classic as authority. On the last page of Chester Barnard's Functions of the Executive, he speaks of humans in organizational life as "searching for limitations in order to make decisions." I do not think he quite realized the power of that perspective carried to its phenomenological limit. It says to me that our external culture does very little to site us in our actual social world, aside from some important namings and a set of stories available for posting on to what happened after the fact, so that we always are searching for and participating in joint action, seen by each as external and ineluctable, interpretable in an objective way. Barnard's quote does as well or better for arenas of political organization, and in a variety of cultural settings ranging out to the Pakhtun machinations Barth has dissected in a classic study (1970).

Social indicators for organizations should deal with the episodic as well as the continuing, and I cite two such studies, of the World War I War Industries Board (Cuff, 1973), and of the Depression Era National Recovery Administration (Hawley, 1966) in this country, to give verisimilitude to my scepticism about the first order flow determinism of mainline theories. Cuff describes organizational creatures striving to be born and thence to control national flows of industrial orders; he details how these very notions crumbled as infeasible myths to be replaced by self-constituting interfaces--in various guises of official committee or other cabals--whose outcomes were not determinate in advance by any first order code. Hawley (p. 459), in my view, reports a similar pattern except that instead of opting for any real organizational pattern at all to replace the myth of master organization by fiat, there was a retreat to the new Keynesian variant of the myth that flows on average force system performance despite organizational frictions.

In the strictly technical literature there also are signs of trouble for the dogmas of flows overriding structure. A basic concern of flow models is with trajectories of individuals. As I see it, this major line of work is culminating in models which are forced to deny the flow postulates. I argued this a decade ago (White, 1970). Just within the past months, James Heckman and Burton Singer, economist and statistician respectively, have circulated two papers which may set the new agenda. They center their model on an unobservable distribution on a latent variable which I argue can stand for organizational structure containing the flows. I argue so partly because of the very strange properties which estimation of the latent distribution proves to have: On the one hand, when particular familiar functional forms (lognormal, beta, and the like) are imposed to ease computation, the results prove completely wrong; and yet when the proper inductive approach is used, and yields good estimates of observable parameters, it seems not to be possible to estimate the unobservable distribution explicitly. This seems consistent with an underlying organization constraint of totally different form.

Current business practices give more homely examples in support of my themes. It is common for companies to be running revolving loans with banks, accounts receivable from work shipped out being the collateral, such that ordinary monthly payrolls are made with the bank's money; loan terms often are such that firms can be thrown into "chapter 10" almost at will. The point here is not bank power or greed, for terms rarely are enforced, not least because the local banks themselves interface with yet other banks and financial institutions again on formal terms almost unenforceable. Or lift your sights to the large firms, Fortune 500 and the like: The internal distinctions among divisions are baffling. Eccles' (1981b) recent comparative field study, as well as his review of earlier studies, suggest to me two certainties regarding "transfer pricing." (This is the Make-or-Buy issue amalgamated with the Inside-or-Outside sourcing for some or all of a product needed by own division.) The two certainties, as I read them, are that whatever is said to be the company policy is in fact not being followed, and whatever the practice is now it will not be the same in another year or two. Again it sounds like interfaces rather than tidy separate actors, interfaces which get negotiated on locally robust bases which are not and cannot be pressured through some average system-flows.

Appropriate Measures

The companion to the first question should be how does one devise measures appropriate to the skein-of-interfaces perspective on the organization system we wish to keep tabs on for social indicator purposes? How do we avoid building into the measures reification of organizations as disjunct integral actors? How to allow for non-linearities and for determination by curvature of the local situation? To answer these is to use second order measures, in any of several senses.

Ijiri and Simon (1977) elaborate earlier work of Simon on size distributions of firms. Their focus on a few parameters, given a stable form of the size distribution, is both economic and a way of considering directly a profile of control. Systematic updating of this work, and refinement, and comparative extension are in order. Cliff and Robson (1978) are a brilliant exploitation of this approach in a much more problematic field, that of city sizes, with its confounding by the autocorrelation of geographical distributions (see next section). Cliff and Robson show, with time series since 1800 of the British distribution of city sizes, a striking departure from common skew form as great new industrial cities popped up unexpectedly--and then a return to standard form by early in the twentieth century.

My market interface models assert that dispersions on producer and buyer sides must both be ordered by quality for that market to have sustained itself. In Table 1 are given the minimal set of four parameters required to identify the dispersions. I lay out in Figure 1 the two-dimensional space in which viable constituencies (gradations of cost structures and of valuation structures) for interfaces can be located. My point here is not the details of this figure, nor is it the validity of my particular operationalization of production markets; the point is that some such figure can be used to describe organization form and range in a second order way which is independent of the particular number of, and isolated characteristics of, firms as separate actors. That is, Figure 1 applies whatever the particular number of producers, or of consumers or their detailed characteristics, because all these have been boiled down to variations in the relative dispersions which matter to the establishment of a market interface. This figure is used for industrial markets in White 1981a and 1981b, and applied in the context of artistic production in White 1981c.

Take as a given a viable pair of constituencies for a market. It is now of equal importance to emphasize that the possible particular interfaces (as represented by terms-of-trade schedule) are numerous, and which if any becomes established depends entirely on the accidents of local history in negotiating a market. The moral for measures of organization is twofold, and with a warning. Don't measure particular organizations or even particular sets, but rather more general and robust parameters defining the viability of interfaces. Recognize that local gradients and not average long-range flows determine interfaces. Yet the combination of these two guides warns one that it is difficult to disentangle long-term change trends--e.g., a shift of interfaces in a direction in Figure 1--from local fluctuations--just from an observation of one interface over time.

Padgett's recent work on budget making (1981), where a collection of organizations are regarded as parts of one master, the State, examines a type of interface which is similar to the market, once concrete economic interpretations are abstracted. His is a stochastic model and introduces the important point that occasional catastrophic changes--governmental analogues of bankruptcies--must be considered a normal part of interface negotiation. Even in this most doctrinaire sort of "organization," the State, one again finds that mutual orientation to perceived interface traced from previous actions at the center of observation. External flow pressures--from Congress and from Executive branches--are exerted, paradoxically, only at a remove from the actual interface: One can see this from the fact that parameters reflecting those pressures are either below or above the interface in scale. The parameters which one wants Padgett to measure again later in order to trace change are again second order parameters (σ , δ , α): They bound the form for particular distributions or bound correlation measures of degree of independence (e.g., between departmental and OMB cuts). Particular organizations and their programs come and go, without the real continuity in the skein of interfaces being interrupted. One gets the same flavor about an earlier era in England from Roseveare's (1973) account.

It will not have escaped you that what we observers can note can also be noted by those participants who have time, position, and intellectual resources. Remember that we early introduced a quote from Chester Barnard, the New Jersey Bell president. My theme has been that organization phenomena are (at least) two-sided social constructions by active perceiver-participants; extend this to the idea that participants themselves sometimes can consciously take second order perspectives on how the system is working. Consider how Hollywood works in the era after T.V. Faulkner (1982) has laid out in lucid detail how films are put together as combinations of personages in specialized areas. Personages are defined socially by their sociometric-star location in networks of other such personages (for a technical framework, see Holland and Leinhardt 1981). Each of them, and their various agents, is eager to match only with equivalent personages: They understand well how interfaces are negotiated in their organization economy, in which separate organization-identities have been largely dropped as superfluous.

Williamson (1970) early emphasized how takeover and merger are crucial to economists' argument for regulation of organizations by a higher order capital market. Recent empirical studies (e.g., Salter and Weinhold, 1979 and Steiner 1975) give support to this argument, which has owners and their top agents consciously acting toward the field of economic organization as it is skeins of interfaces to be recombined, not discrete persona. I interpret the failures and difficulties of these mergers and the like as signs of how difficult it is to manipulate interfaces from afar (see Bower, 1971), since the essential to be preserved is not some hunk of assets but position in and existence of an interface, which is better thought of as a continually renewed barrier made up of flows than as a tangible material construction.

How are we to allow in our construction of measures for such second order participation? Somehow, we have to allow for a sort of reflexive recognition by the structure; surely no mere index scheme will do. I suspect that we shall have to build in measures of the organizational traces of this reflexive self-intelligence of the system by its privileged participants. The English have coined a wonderful new term, "quango" for Quasi-Autonomous-Non-Governmental-Organization, which designate one sort of outcome from second order intelligence on organization systems. The greatly enhanced and changed roles of accounting and consultant agencies is another outcome and contributor. A first step in social indicator measurement should be systematic tracing of access to and from such self-intelligence agents. It is a natural partner of the new developments in director interlock measures (e.g., Carrington, 1981) of mutual intelligence across our economy.

The same sort of insights as urged by Burns and Stalker (1961) long ago, also are applied by at least some managers, such as the legendary Dee Hock of VISA, to continual shakeup and re-interfacing within their own organizational field (Eccles, 1981c). VISA itself is a kind of quango straddling conventional banking lines. Padgett (1981a) has devised a model to James March's (Cohen and March, 1974) garbage can theory of organization: I see it as a very plausible portrayal of how Dwight Eisenhower ran the USA, a model for all executives who bend the interfaces so as to achieve their goals by second order leverage and free up time for lots of golf. The argument for second order indicator measures is reinforced.

Inequality

Particularism marks the measures which I have advocated so far for social indicator purposes. There is a natural hankering for a more universal base of measurement. I think this hankering is responsible for social science preoccupation with measurements of individuals as atoms and in flows. In natural sciences the universal base is physical space. One of the most effective of the social sciences, for that reason, is geography, which is a treasury of ideas for organizational social indicators: See the excellent recent survey by Haggett et al. (1977). But geographers, unlike most of us, are acutely aware both of the extraordinary constraint exerted by metric space (see for a full exposition Weyl 1949 and Poston and Stewart 1978), and also of the awkwardness of combining the limited direct impact of space on social systems with social topology. Spatial autocorrelation bedevils analysis. Wellman's "communities as networks" liberated the notion of community from physical spatial constraints.

Inequality provides a broad base for organization measurement. The very word presupposes there is an underlying comparability, in order that lack of equality have meaning. Its measure is inherently a second order one. In my market interface models, a correlate of each terms-of-trade schedule is a gradient of inequality (see White 1981b for details). The whole basis of an interface is the induction of such gradients on each side. According to my formulation, the mere entry or exit of firms or other actors at such an interface cannot erase this inequality gradient, since without it the interface evaporates. Firms in a market don't just happen to differ in profit rates; they necessarily differ in that, as they do in volume; an interface is an interrelated set of niches, to use the imagery Freeman and Hannan have introduced.

Inequality derives from equality, which is a specifically social construction as a concept. Measures of inequality should be predicated on there being a degree of recognition by participants of such inequality. But there remains a major gap between inequality as a byproduct of the operation of complex social organization, on the one hand, and inequality as a deliberately constructed pattern in an organization. The distinction is between crevice inequality and enacted inequality.

The Lorenz curve, of cumulative population versus cumulative goody, together with its Gini index, are an effective framework for comparing inequality across very different contexts--whether different in size of population, in kind of goody or in crevice versus enacted (cf. the survey of Schwartz and Winship, 1980, and the exposition by Alker, 1965). Consider first the Simon tree model of organization pay as developed by Williamson (1970, Ch. 2). It is straightforward to express their findings in terms of a Lorenz curve:

$$P = 1 - (1 - F)^{1-k} \quad (1)$$

as a very good asymptotic approximation, with P the cumulative proportion of the total goody received by the cumulative fraction F of the population. Here the parameter k sums up all one needs to know about the two independent parameters assumed in this deliberately homogenized model: If b is the ratio between pay of

subordinate and immediate superior and n is the number of subordinates to a superior (in each case throughout the organization in all branches and levels of the hypothesized tree), then

$$k = (\log b) / (\log n) \quad (2)$$

Here n is expected to be larger than b so that k is less than unity. In the limit as the cumulative fraction F approaches one, it is obvious that

$$(1 - P) \rightarrow (1 - F)^{1-k} \quad (3)$$

The upper tail of the enacted inequality distribution, the pay hierarchy of Simon's pyramidal tree, is seen to suggest a Pareto distribution.

The Pareto distribution takes us to the world of crecive inequality, where taxmen's reports of earned income across a broad population are tallied and modelled. After looking at many comparisons of crecive and enacted, I offer the following conjecture, which may seem counter-intuitive: Degree of inequality is always smaller in enacted than in crecive settings. That is, organizations, to the extent they actually follow common cultural forms of enacted inequality, are a device for reducing inequality relative to the un-planned workings of the entire organizational context.

To simplify our referent, let us shift to the Gini index that summarizes, as a fraction, the overall degree of inequality. Typical figures for wealth or other ownership distributions within a society range from 0.7 to 0.95; typical figures for income inequality in current Western societies range around 1/3 up to 1/2; typical figures for earnings inequality within a specialized area of the economy, which is not entirely encapsulated in bureaucracies, say among lawyers or among accountants, can be higher than those across the working population. The Gini index for enacted inequality as modelled in equations (1) - (3) is

$$G = \frac{k}{2 - k} \quad (4)$$

Now sit down and pull out your pocket calculator and try what seem to be plausible values for b and n ; you will be very hard put to come up with inequality as great as these figures for crecive inequality!

To my knowledge only one analyst has tried to make sense out of putting together crecive with the above sort of enacted hierarchical inequality. R. H. Tuck (1954) proposed that income inequality in the UK be accounted for by assuming persons blocked from promotion spun off their own firms, which then joined a standard pattern of growth. In appendices he actually carried out an extensive fitting of published statistics, some akin to Ijiri and Simon's, separated by regions of the economy. His work implicitly assumes that all interfaces of importance are within firms. It illustrates that one cannot separate measurement of social indicators from theory about organization.

Inequality can be construed more broadly, both by observer and by participant, to suggest measurement of differential position in a structure, and how it changes. This is coordinate with a broader concept of equality, as structural equivalence within a field of relations and/or movements. I think that the construct of social network should only be introduced in some such context. There is a real temptation to try to substitute "network" for "space" to give social science some topology. But the raw construct has and will continue to be of limited use; it is subject to the same limitations as the mainline preoccupations with isolate "actors" and imperious flows discussed earlier. Douglas White (1974) shows a number of ingenious ways to measure organizations from the standpoint of structural equivalence.

In three recent articles, Ronald Breiger (1978, 1981a, 1981b) has demonstrated how to induce measures of organization from changing fields of flows in networks as interpreted from a structural equivalence point of view. In one article, changing interfaces are derived among countries as trading partners in various sorts of goods. A second one infers elite factionalization process in Laumann and Pappi's German and American cities. Both these use blockmodelling approaches and algorithms originally developed to give measures of small group structure. In the current issue of the American Journal of Sociology, Breiger adapts loglinear measures to uncover the leading interfaces implicit in recorded flows of persons among detailed occupational categories.

Interpenetration

Interfaces, despite great variety, are not sufficient basis for construing social organization for purposes of indicator series. Nor is inequality, however generalized, everywhere applicable to measurement. I want to sketch some examples of another class, interpenetration.

Consider again the protean idea of social network, but now emphasizing not resonances in flows that push up structural equivalences (cf. Wilkov, 1972), but rather network as representation of distance. Granovetter has continued developing (1981) the phenomenology for strength of tie originally suggested by Rappoport. Think of the network as composed of two radically different types of ties, strong and weak: This net traces, on Granovetter's account, an interpenetration of two radically disjunct forms of organization (intimate in-grown versus casual farflung) on the same population in a manner hard to represent in terms of separate sets of people. Scott Boorman (1975) shows via a combinatorics model how homogeneous tendency toward concentration on strong or on weak ties can, in the context of others' choices, impact the spread of information on desired jobs. The general phenomenon, worth measurement in a variety of indicator series, is how networks function as triage systems for social organizations. Shotland's monograph (1975) applying Small World measures within specific organizational context is one beginning.

Patronage systems (e.g., Badian 1967, Chevalier 1963) derive importance from the way strings of patronage bring interpenetration of what can be very disparate layers and kinds of social organization. A regularized analogue is the parallel hierarchy (Windmuller 1969, Evans 1977, Crozier and Thoenig 1976). In my opinion, a promising direction for second order measures here is a focus on alternation patterns in times of activations of the strings or pillars in such systems. A special case of this kind of interpenetration is the mobilization upraising of a hierarchy so lucidly described by Michael Schwartz (1975). A profound study of such interpenetration through conflict mobilization on an even larger and longer continued canvas is Kuhn (1970), whose monograph has generated a considerable literature which could be the basis of an ex-post indicators series.

Interpenetration takes quite a different form when there is use of a detailed cultural framework as mapping device. Job frames are a major example. Kelsall (1955) early on introduced one form, where mapping was by rather broad categories defined by external class criteria. I carried out (1970) a study at the other extreme of mappings of individual persons to jobs, and Stewman and others (Stewman and Konda, 1980) have worked on interpenetration at an intermediate coarseness of mapping. Herbert Simon's idea of counterpart units--the mirroring of one organization by a specialized organ in others with which there are dealings--is a sort of interpenetration intermediate between these job systems and the parallel hierarchies above. This intermediate sort reminds us of how unreliable a distinction is the cultural dress applied--I could as well have emphasized the "heterodox versus orthodox" aspect of multiple hierarchy. This reinforces my hunch that timing measures, especially of initiation of streams of events, will prove the most reliable base for indicator series.

Perhaps the most common form of interpenetration among social organization will be structures of access. Whether in a business or a governmental context, much of the intense action concerns access to "centers" defined by their being difficult to access! It is not a simple matter of referral levels of a technical sort--as for example in placement of city services (Chaiken and Larson, 1972)--but a matter of outreach through agents of a center interpenetrating into arrays of other organizations, seeking access. Congestion phenomena are one concrete form.

There are negative forms for exclusion. Vicinage, for example, and entailment were procedures for pruning access from positions in descent trees into ownership structures. I think the table-of-organization tree should be seen in this light: It is the envelope of ties left after all systematic prunings of access have been effected.

Measurement of interpenetration for social indicator series could begin with such obvious data as records of telephone intercommunication in managerial reaches of large hierarchies. Could one even tell, given such records but without any other hints, where the boundaries of one and another "organization" were to be distinguished in the field of telephone numbers? A second obvious place is records of judicial appeal of cases: Shapiro (1980) makes a trenchant argument for appeal as being a manipulative process of control by access to a center of power. The most general context for measuring interpenetration, it seems to me, is the intercalation of committees across large systems: How to do this is not clear, but I suspect the main path has to be through coding careers of individuals in terms of the evolving array of committees.

Conclusion

High polymer gels may seem a peculiar topic with which to end, but I think deGennes' book (1979) is a magnificent work which can hearten us, instruct us, and warn us in our pursuit of appropriate indicators of organizations in society. His problem is not totally unlike ours: How to account for the strange properties of gels which are dominated by very long molecule-chains, chains so long they have individualizing kinks and quirks of spatial location (knotting) and of constituents. Compare his account with an early account in Seitz's classic survey of the physics of matter (1940): Night and day; so such messy problems of gloppy structure can be dealt with powerfully!

One aspect of the achievement seems to me to be, in the terms used earlier, an early shift to second order measures. Rosen (1974) shows how to use "envelopes" in social science much as is done by deGennes. Another aspect is an assumption that local gradients of intertwining would prove to be crucial determinants of overall properties. I think a main problem of work on social organizations has been an unspoken presupposition that somehow they were lawful in the way of gases, or, sometimes, lawful in the manner of regular crystals. Lawful they are, but the analogue surely is in messy allotropic goos or glasses.

The warning I extract is that one must push very hard on the exact meaning of one's most fundamental presuppositions of context in order to get major results. DeGennes has physical space, we do not; but ironically it turned out that physical space had to be understood in a more profound sense than Descartes' to make real progress on these systems ordered at the second level. Kenneth Wilson (1979) was the pioneer of the very strange view that space could best be construed as having a decimal number of dimensions as the context for messy systems near break points so decisive that distinctive chemical features lost all importance.

TABLE 1

i) Phenomenology of Market Context

		<u>Dispersions</u>	
		on volume (y) of Firm's Production	across Firms on Quality Index (n)
S c h e d u l e s	Valuation	<u>Contribution</u> of the product increases with volume, as perceived by the buyers	<u>Desirability</u> of the product increases with quality as judged by the buyers
	Costs	<u>Cost</u> of production increases as volume increases	<u>Expense</u> of building in the quality changes (+ or -) with increased quality
		Increases With Volume	Changes With Quality

ii) Parameters--Proportionate (log) Rates

a	b
c	d

iii) The Basic Tradeoffs

-- Over variation in product volume: $\frac{\text{Contribution}}{\text{Cost}} = a/c$

-- Over variation in producers' quality: $\frac{\text{Desirability}}{\text{Expense}} = b/d$

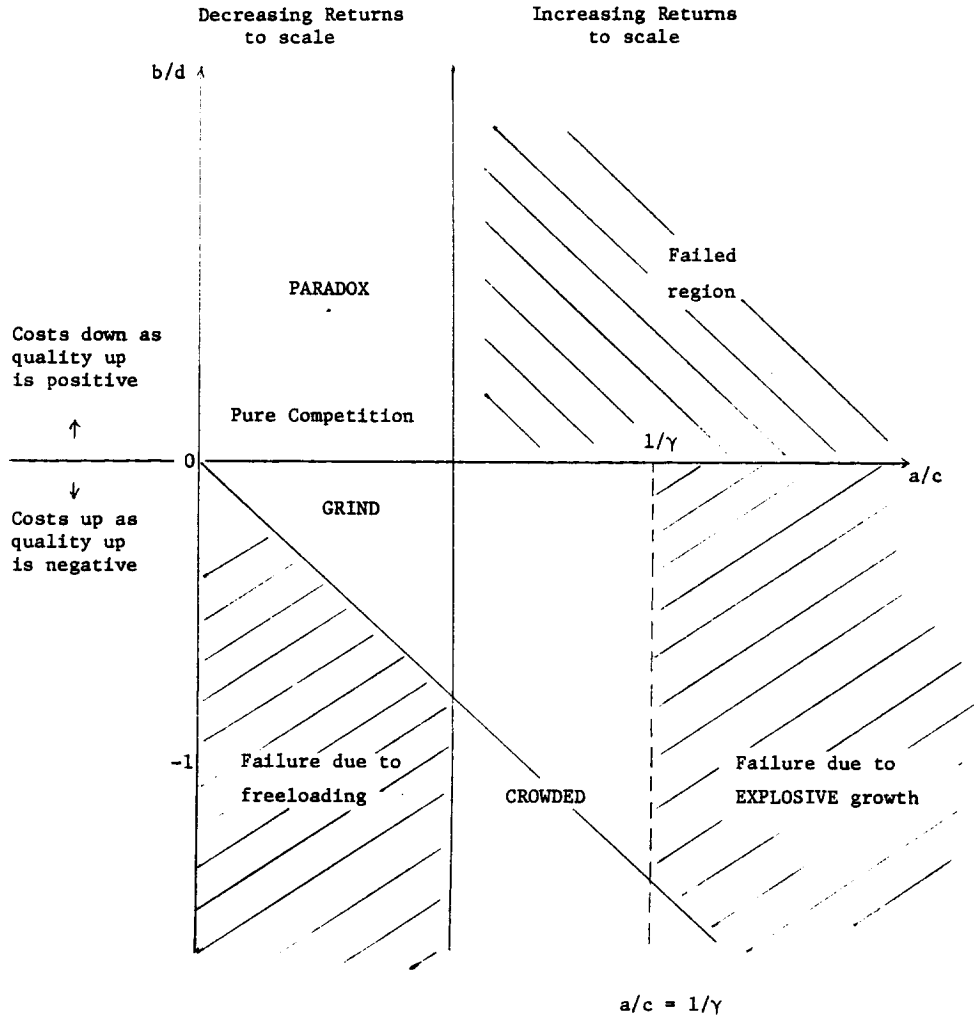


Figure 1: Tradeoffs in cost versus valuation, across growth in quality (ordinate) and in volume (abscissa)

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A HIGH-DENSITY CLUSTERING APPROACH TO EXPLORING THE STRUCTURE OF SOCIAL NETWORKS

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In this paper, we present a technique originally developed for decomposing complex software design problems, and suggest its usefulness for exploring the structure of large, non-directed social networks. The technique, based on a high-density clustering model defined on a graph, is quite efficient on very large, relatively sparse networks and provides a convenient, two-dimensional representation of the global network structure. In particular, we demonstrate the usefulness of the high-density clustering technique on the network defined by the interlocking directors of the 200 largest industrial corporations of the 1970 Fortune 800. The technique enables us to examine the regions of "high-density interlocking" in this corporate subnetwork: regions where any group of firms is quite heavily interlock, and where any one firm in the group is not highly linked outside the group. These and other preliminary results indicate that the high-density clustering technique is conceptually appealing and requires much less time and computational expense than other exploratory methods employed.

I. Introduction

Over a decade ago, Levine (1972) set out to examine a relational network defined by the directorate interlocks among 84 corporations named in a report on the trust activities of commercial banks. Levine's goal was to discover the important characteristics of the network using only the information implicit in the interlocks, "...to 'understand' a large network in a crude, almost a-theoretical sense of being able to represent it, to discern its major outlines, and to distinguish important links from those which are not" (p. 14). His first frustrating attempt with pencil and paper led him to a non-metric multidimensional unfolding approach with hopes of being able to picture the network in some Euclidean space of manageable dimensionality, perhaps the first step in an exploratory data analysis of a social network configuration. The result was an actual picture of this corporate subnetwork, a "spherical" representation that enabled Levine to see the global properties of the network and to guide his subsequent investigations and analysis.

Recent trends and the overall growth and development of social network analysis have presented researchers with the opportunity to investigate much larger networks. Mariolis and Schwarz's archive of almost 800 U.S. corporations has been available to researchers for many years (see e.g., Mariolis (1975), Levine and Roy (1975), and Pennings (1980)) and recently an archive of over 400 multinational corporations (known as WORLDNET) was compiled by Levine. Because of the troublesome implications of imposing an arbitrary boundary (see e.g. Barnes (1975), p. 409ff), network analysts may be hesitant to work with subsets of data that are not delimited by a clear social boundary in reality. Ultimately, the size of the network under study is limited by the finite resources of the researcher for gathering and processing data, and by the capacity and manageability of the techniques available for exploring the data.

When the network consists of several hundred nodes and perhaps almost one thousand arcs, many times the size of Levine's original subset, non-metric multidimensional scaling may have any one of a number of drawbacks:

1. In some cases, the information implicit in the network relations is inconsistent with the formation of a configuration in small-dimensional Euclidean space.
2. When the dimensionality of the solution space is not small (i.e., greater than three or four), the results are difficult to envision and to interpret.
3. For very large problems, non-metric multidimensional scaling can be relatively time-consuming and computationally expensive.

In this paper, we present a high-density clustering technique developed as a part of a systematic design methodology (SDM) for the design of large software systems (see Huff (1979), Wong (1980), Lattin (1981a), and Wong, Madnick and Lattin (1982)). This new approach offers several advantages for the analysis of large social networks:

1. The model considers the context within which any two nodes are linked, thereby taking into account not only the direct relation between two nodes but also the interaction of each with surrounding nodes.
2. The results are presented in a hierarchical clustering trace, which requires no unconventional display and facilitates quick scanning and interpretation.
3. The technique is quite computationally efficient, especially so for sparse networks.

In section II, we elaborate on the high-density clustering technique. In section III, we demonstrate the usefulness of the technique by examining the structure of a single connected network of 171 of the largest 200 industrials listed in the 1970 *Fortune* 800. Finally, in section IV, we conclude with some observations about the technique and some interesting directions for further application.

II. The High-Density Clustering Technique

The clustering technique determines regions of "high-density" in a network, i.e., groups of highly or heavily linked nodes separated by other such groups by relatively few, weak links. Systems designers have used the high-density clustering model to focus on the global features of their design specifications, by modeling the design problem as a graph, with the functional requirements of the problem as nodes and the interdependencies between requirements as arcs. The high-density regions of such a design graph suggest well-defined subtasks that exhibit good design characteristics. Just as systems designers use the high-density clustering model to focus on a complicated set of design specifications, so can we use the model to explore the structure of a social network, looking for well-defined regions of highly interrelated nodes that appear to stand apart from the rest.

We choose the high-density clustering model on a graph (Wong (1980); see Lattin (1981a) for implementation and performance evaluation) because of its apparent advantages over other network/graph decomposition techniques:

1. The technique does not require a priori specification of the number of subgraphs; rather, it identifies regions of high-density and thereby suggests to the investigator the appropriate number of components to the graph (see e.g., Kernighan and Lin (1970), Christofides and Brooker (1976), both of which require a priori specification of subgraph size or the number of subgraphs).
2. The technique utilizes a maximum spanning tree algorithm, which operates very rapidly on large, relatively sparse graphs (see e.g., references in point 1 above; see also McCormick (1972), Huff (1979) for heuristics that take no account of the sparsity of the graph).
3. The high-density clustering model does not rely on a goodness-of-partition measure, which is difficult to specify without somehow favoring extreme partitions (see Wong (1980) for a critique of these methods).

The concept of a density on an arc between two nodes is defined using a neighborhood concept that corresponds to the nearest neighbor density estimation technique in statistics. For an unweighted graph, the density on an arc between any two connected nodes i and j is defined as follows:

$$d_{ij} = \frac{|N_i \cap N_j|}{|N_i \cup N_j|} = \frac{\# \text{ of nodes connected to both } i \text{ and } j \text{ (plus } i \text{ and } j)}{\# \text{ of nodes connected to either } i \text{ or } j \text{ (plus } i \text{ and } j)}$$

where d_{ij} is the density on the arc between node i and j , N_i is the neighborhood of node i ; i.e., node i and all nodes k such that arc (i,k) is in the graph, and $| \cdot |$ denotes the cardinality of the included set.

Wong (1980) proposes the following density measure for weighted graphs:

$$d_{ij} = \frac{2w_{ij} + \sum_{k \in C} (w_{ik} + w_{kj})/2}{|N_i \cup N_j|} \quad \text{for all } (i,j) \in A, \quad (1)$$

where w_{ij} = the weight on the arc between node i and node j , A is the set of all arcs in the graph, and C is the set of all nodes k (distinct from i and j) such that (i,k) and (k,j) are elements of A . Using this measure, a graph with arc weights in the interval $[0, 1.0]$ will have arc densities in the same interval.

Wong *et. al.* (1982) describe the computational algorithm for finding the tree of high-density clusters for a given graph $G = (N,A)$, where N is the set of nodes in G and A is the set of (weighted) arcs.

STEP 0: For each arc $(i,j) \in A$, compute the density d_{ij} according to equation (1) above.

STEP 1: Find the largest d_{ij} and amalgamate nodes i and j to form a cluster C . Define the density between C and any other node k by $d_{kC} = \max \{d_{ik}, d_{jk}\}$ for all k such that either $(i,k) \in A$ or $(j,k) \in A$.

STEP 2: Repeat STEP 1, treating C as a node that replaces nodes i and j . Continue this step until all nodes are grouped into one large cluster. All clusters C formed in the course of this algorithm are high-density clusters.

Although the actual implementation of the high-density clustering technique differs slightly from the algorithm outlined above, neither differs essentially from the classical minimal (in this case, maximal) spanning tree algorithm. For a published computational algorithm that would produce the MST, see Hartigan (1975).

In order to illustrate the concept of an arc density, and the output of the high-density clustering technique, we select a small subset of seven interlocked corporations from the data compiled by Mariolis and Schwarz, which are currently available on-line in the BARON archive at Dartmouth College. Figure 1 shows the subset configured as a weighted network according to the following weighting scheme:

$$w_{ij} = \frac{|C_i \cap C_j|}{\min\{|C_i|, |C_j|\}}, \quad (2)$$

where w_{ij} is the weight on the arc connecting i and j , C_i is the set of directors on the board of corporation i , and $|C_i|$ denotes the cardinality of set C_i . The measure is quite similar to the one proposed by Bearden *et. al.* (1974), who used $(|C_i| \cdot |C_j|)^{1/2}$ in the denominator instead of $\min\{|C_i|, |C_j|\}$. In practice, the difference between the two schemes does not appear to be substantial. The densities for each arc, calculated according to (1), are shown in the figure in parentheses.

Any value $d^* \in [0, 1.0]$ defines a density contour, delimiting the high-density clusters at level d^* . These are the regions of "high-density interlocking" in the corporate network, where firms are linked to other firms within the group with a density at least d^* . These density contours have a hierarchical nature; each lower contour encircles all the nodes in the contours above it. Figure 1 shows an example of the hierarchy of high-density clusters.

Had we selected a much larger subset of corporations for the illustration in Figure 1, the depiction of density contours might have become quite difficult. For large graphs we appeal to a more concise representation, which is the modified form shown in figure 2 of the standard clustering tree output (see e.g., Hartigan (1975) for standard output). Although this representation contains less information than that of Figure 1, it is somewhat easier to see that General Telephone (19), Continental Can (51), and Textron (57) are clustered at a much higher density level than any of the other firms in the sample. A vertical line at density level $d^* = 0.0675$ delimits the high-density clusters at that level ($\{19, 51, 57\}$, $\{138, 192\}$) from the low-density nodes ($\{191\}$). The fact that the point between Warner Lambert (138) and Otis Elevator (192) does not appear as a sharp peak to the right of the line $d^* = .0675$ in the figure indicates that the pair may not stand by itself as a strong, well-defined cluster.

We cannot, however, say anything further about the interlocking behavior of these seven firms in a more global setting. A concern voiced by Barnes (1975) and shared by all network analysts is that "this structure may well be merely an artifact of our procedure for delimiting the graph" (p. 409); that is, the rather arbitrary choice of these particular seven firms from the set of tens of thousands in the U.S. may distort the picture of their actual interlocking structure. In the context of the entire Fortune 500 industrials, for example, any one of the seven might be more heavily interlocked outside the sample than inside it. Adding another several hundred firms to this network might well change its characteristics completely.

Because we use the full extent of the interlocking activity of a firm in our density measure, we must attempt to present the network in the most complete form possible. Otherwise, we run the risk of distorting certain areas in the network by failing to include firms that might contribute either to the weight assessed to the link between two firms (through a direct or an indirect interlock) or to the density measure on some arc (i, j) (e.g., by increasing the number of firms in the neighborhood of either i or j). In theory, this requires the inclusion of all existing firms into the network; in practice, we compromise by establishing some boundary around a large number of firms, and hope that in this collection we capture the main effects of the interlocking phenomenon.

III. Applying the Technique

In order to demonstrate the usefulness of the new technique in exploring the structure of large social networks (but recognizing that this is a first cut at the data with a new approach), we focus on the largest 200 industrials in the 1970 Fortune 800 data. Of these firms, 171 form a single connected network with 437 weighted arcs, while the remaining 29 firms are isolates. Further details summarizing the characteristics of this particular subnetwork are in Lattin (1981b).

The results of the high-density clustering analysis are shown in Figure 3. The formation of the clustering trace shown in the figure is quite rapid, accomplished by an algorithm which runs in $O(A)$ operations, where A is the number of arcs in the network. The technique, as currently implemented on an IBM 370/168, requires less than one second of CPU time to form the clustering trace. The calculation of the arc densities runs in $O(A^2/N)$ operations, or k^2N^3 where $k = 2A/N^2$ is a fraction representing the sparsity of the graph. Although this step is potentially very time consuming for large, complete networks, in this example the value of $k = .03$ and the technique requires less than two CPU seconds to calculate the arc densities. For additional detail on the actual implementation and efficiency of the algorithms in the high-density clustering technique, see Lattin (1981a).

The jagged peaks to the right of the vertical line indicating density level $d^* = .030$ are the high-density clusters at this particular level. Space limitations make it impossible to label every point in the clustering trace with the associated firm, so only the fifty-five firms in the six largest clusters (about one-third of the network) have been identified. The twenty remaining unlabeled clusters include a total of fifty-one other firms, leaving sixty-five firms unclustered at level $d^* = .030$.

The effect of increasing or decreasing the density level d^* is much the same as raising or lowering the water level on a three-dimensional topological map. When the water level is relatively high (corresponding, say, to a density level of $d^* = .075$), only the tops of the very tallest peaks on the map will show above the water level. These are the high-density clusters; the remaining land underwater represents the unclustered nodes. As the water level decreases, more and more of the mountain tops begin to show, and as the water drops below the level of the highest valleys, some of the mountains begin to join together. Finally, when the water level is quite low (e.g., $d^* = .001$), all of the land mass is above water, leaving one large cluster containing all the nodes in the network.

Using a fully annotated clustering trace (which requires more space than we have available to reproduce here), we can examine the regions of "high-density interlocking" in this corporate subnetwork and proceed with further analyses armed with a picture of the network's clustering structure. The high-density clustering technique makes it possible for the researcher to search out that "arresting finding" which is the stuff of an exploratory data analysis, a significant insight that may help direct his or her subsequent investigations.

In this particular case, the overall shape of the clustering trace led to an interesting approach to the network that might not have been possible without the representation afforded by the high-density clustering technique. Lattin (1981b) noticed an underlying uniformity to the clustering trace of the corporate subnetwork and posed the following question: what if such a structure might just as well have arisen from some completely random process of director choice? He went on to model a plausible process of corporations choosing directors without regard to their established affiliations, and then compared the clustering trace from the model network thus generated to the clustering trace of the actual network. The results are astonishingly similar, although there exists no test to differentiate the two with any degree of statistical significance. It may be valuable to test other models of social interaction in this way.

IV. Conclusion

The high-density clustering technique has had but a few applications in the relatively new area of systematic design of software systems, and with the exception of this one example, it is virtually untested as a technique for exploring social network data. Nonetheless, it has provided us with some useful insight in our study of the corporate interlock data, and may have some advantages as well for other researchers studying large social networks.

In our own work, two promising directions for further analysis have arisen. One approach is to probe further to uncover some structural difference between the model network described above and the actual interlock network. This might be done by examining the networks of direct and indirect interlocks to identify any second order structural differences. Another research direction involves examining the structural changes in the corporate network as it grows in size. There may be certain size-dependent characteristics of the interlocking phenomenon that will show up by comparing the clustering traces of larger and larger networks. In either case, the high-density technique should prove to be a helpful tool.

Notes

For any further information regarding the high-density clustering programs or the technical reports listed in the references, please contact: James Lattin, E53-336 Sloan School of Management, Massachusetts Institute of Technology, 50 Memorial Drive, Cambridge, MA 02139.

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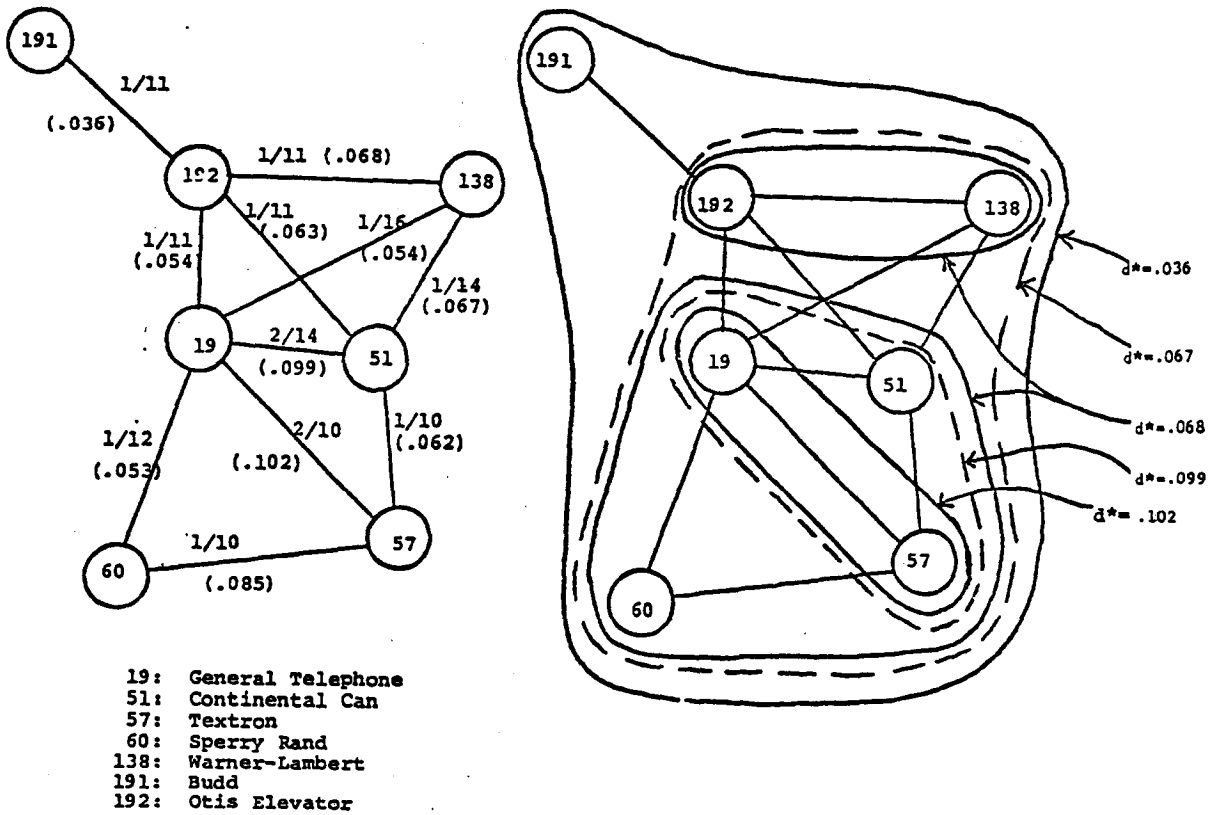


Figure 1

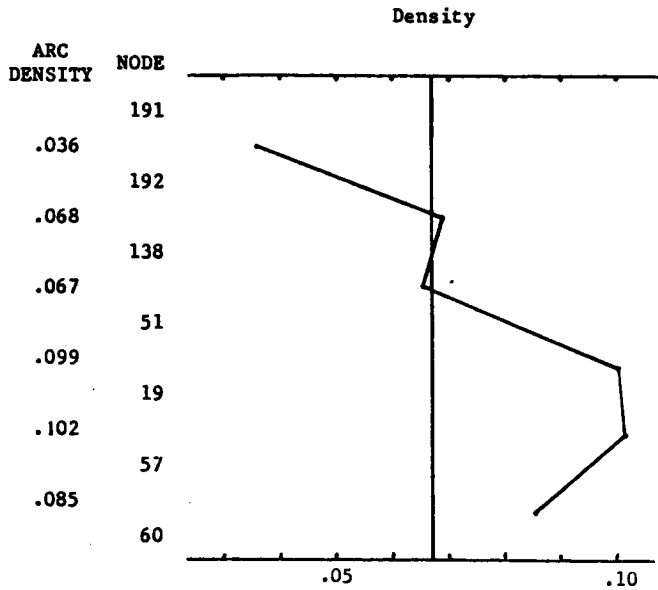
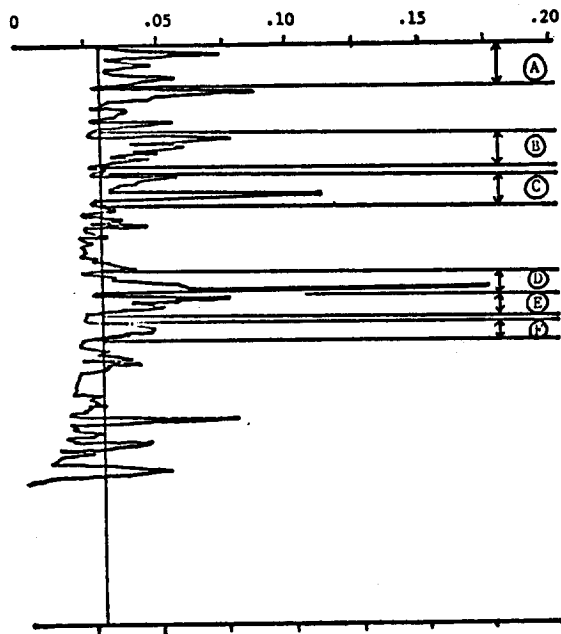


Figure 2

Clustering trace for example network of seven industrials.
Vertical line delimits high-density clusters at level $d^* = .0675$



- (A) - General Motors, Alcoa, Heinz, Gulf, PPG, LTV, General Foods, Whirlpool, Std. Oil NJ, Mobil, Del Monte, Caterpillar, Northwest Ind., Time, Borg-Warner
- (B) - Olin, Squibb Beech-nut, Avco, Republic Steel, Std. Oil Ohio, White Motor, Firestone, Rockwell, TRW, Kodak, Std. Brands
- (C) - ARCO, Bristol Meyers, Johns-Manville, American Standard, NCR, American Can, Allis Chalmers, Xerox, Teledyne
- (D) - Celanese, Anaconda, Texaco, National Steel, Burroughs, Eaton, Studebaker, Babcock and Wilcox
- (E) - Sperry Rand, Textron, General Telephone, Continental Can, Warner-Lambert, Otis Elevator
- (F) - Colgate Palmolive, McDonnell Douglas, Bethlehem Steel, CPC International, Western Electric, Uniroyal

Firms listed in order of appearance in the clustering trace, from top to bottom.

Clustering trace for 171 industrials. High-density clusters defined at level $d^* = .030$. Circled letters identify principal clusters detailed at right.

Figure 3

SPECIAL JOURNAL ISSUES

Abstracts from SOCIAL NETWORKS 3(3) 1981

SNIJEDERS, Tom A. B. (Groningen). "The degree variance: an index of graph heterogeneity."

In the analysis of empirically found graphs, the variance of the degrees can be used as a measure for the heterogeneity of (the points in) the graph. For several types of graphs, the maximum value of the degree variance is given, and the mean and variance of the degree variance under a simple stochastic null model are computed. These are used to produce normalized versions of the degree variance, which can be used as heterogeneity indices of graphs.

BONACICH, Phillip (California-Los Angeles) and G. William DOMHOFF (California-Santa Cruz). "Latent classes and group membership."

A technique for analyzing group membership data, such as interlocking directorates, based on the assumption of latent classes of individuals, is described and illustrated with two data sets. The technique partitions individuals and/or groups into homogeneous sets and can be used to create measures of structural centrality for groups and for individuals.

KLOVDAHL, Alden S. (Australian National). "A note on images of networks."

Visual imagery and visual representations have proven very useful in some of the most important discoveries in the history of science. It is not surprising, therefore, that the earliest students of network phenomena often made use of visual representations (e.g., sociograms) to assist in the analysis, interpretation and illustration of complex relational data: by creating such visual representations, human faculties for visual imagery and pattern recognition could be more fully utilized in the search for structural patterns in sociometric networks. What is somewhat surprising, though, is that the techniques for creating visual representations of relational data have remained virtually unchanged since the study of social networks began: the slow, tedious, pen-and-ink approach of forty years ago is still very much the method of the day.

Readily available computer graphics technology, however, introduces potentially powerful possibilities, and some of these are explored. The results of this initial exploration suggest that the time is ripe for forging new tools that will facilitate the analysis of complex relational data, stimulate the development of network theory, and provide new perspectives from which to view previously hidden facets of society.

RICHARDS, William D. (Simon Fraser) and Ronald E. RICE (Stanford). "The NEGOPY network analysis program."

A method and its associated computer program for (specifically communication) network analysis are described. The program described here, NEGOPY, is relational, or linkage-based. The conceptual orientation, computational algorithm, operating characteristics, format and availability of NEGOPY are described. Finally, a partial bibliography of works describing other aspects of NEGOPY and research studies using NEGOPY is included.

Abstracts from AMERICAN JOURNAL OF SOCIOLOGY, special issue on the Sociology of Economics, Occupational Mobility, and Social Stratification. Vol. 87(3) 1981.

WHITE, Harrison C. (Harvard). "Where do markets come from?"

Production markets have two sides: producers are a fully connected clique transacting with buyers as a separate but aggregated clique. Each producer is a distinctive firm with a distinctive product. Each side continually monitors reactions of the other through the medium of a joint social construction, the schedule of terms of trade. Each producer is guided in choice of volume by the tangible outcomes of other producers—not by speculation on hypothetical reactions of buyers to its actions. Each producer acts purely on self-interest based on observed actions of all others, summarized through a feedback process. The summary is the terms-of-trade schedule, which reduces to constant price only in limiting cases. The market emerges as a structure of roles with a differentiated niche for each firm. Explicit formulae—both for firms and for

market aggregates—are obtained by comparative-statistics methods for one family of assumptions about cost structures and about buyers' evaluations of differentiated products. Not just any set of firms can sustain terms of trade with any set of buyers. There prove to be three main kinds of markets, and three sorts of market failure, within a parameter space that is specified in detail. One sort of market (PARADOX) has a Madison Avenue flavor, another is more conventional (GRIND), and a third (CROWDED) is a new form not included in any existing theory of markets. Current American industrial markets are drawn on for 20 illustrations, of which three are presented in some detail. Inequality in firms' market shares (measured by Gini coefficients) is discussed.

WILLIAMSON, Oliver E. (Pennsylvania). *"The economics of organization: the transaction cost approach."*

The transaction cost approach to the study of economic organization regards the transaction as the basic unit of analysis and holds that an understanding of transaction cost economizing is central to the study of organizations. Applications of this approach require that transactions be dimensionalized and that alternative governance structures be described. Economizing is accomplished by assigning transactions to governance structures in a discriminating way. The approach applies both to the determination of efficient boundaries, as between firms and markets, and to the organization of internal transactions, including the design of employment relations. The approach is compared and contrasted with selected parts of the organization theory literature.

BREIGER, Ronald L. (Cornell). *"The social class structure of occupational mobility."*

This paper provides an analytical framework within which hypotheses of class structure are brought to bear directly in the formulation of models for the occupational mobility table. The proper aggregation of rows and columns is portrayed as the fundamental theoretical issue in mobility table analysis, rather than as an exogenous "given" to be decided upon prior to the construction of explicit models. Homogeneity of mobility within and between classes, class hierarchy, and tangible boundedness are the central themes. These themes are implemented in loglinear models and applied in the analysis of large (17-category) intergenerational mobility tables. Four such tables from the studies of Blau and Duncan and of Featherman and Hauser are fitted acceptably. Seven falsifiable hypotheses about the social class structure of occupational mobility are identified and assessed comparatively within the new framework.

KALLEBERG, Arne L., Michael WALLACE and Robert P. ALTHAUSER (Indiana). *"Economic segmentation, worker power, and income inequality."*

How economic segmentation generates income inequality constitutes a central question for theories of economic and social organization and of socioeconomic achievement. Previous research emphasizes two sources of the structural variation in income: (1) employers with large amounts of resources, for a variety of reasons, may find it in their interests to pay workers higher wages; and (2) some workers are able to acquire power against their employers as well as against other workers and can therefore extract higher earnings. In this paper, we investigate several issues involved in the links among economic segmentation, worker power, and income inequality. We argue that the structure of economic segmentation is multidimensional and reflects such distinct concepts as concentration, economic scale, state intervention in the market, capital intensity, and organization size. Worker power also is derived from diverse sources, such as union membership, occupational skill and licensing, class position, and tenure with an employer. We construct measures of these two sets of concepts and examine their relationships and effects on income with data from two national samples of individuals. We also relate economic segmentation to issues raised by the socioeconomic achievement literature; in particular, we find that the effect of education on income differs among firm and industrial contexts. Our analyses illustrate the utility of an economic segmentation approach for explaining structural sources of income inequality.

JACOBS, David (Maryland). *"Toward a theory of mobility and behavior in organizations: an inquiry into the consequences of some relationships between individual performance and organizational success."*

In this paper I will show that various positions within organizations put different limits on the relationship between individual performance and organizational success. Some of the consequences of these curvilinear relationships will be illustrated by describing three common types. After specifying the major determinants of these three types, I will use them to help explain four outcomes. The relationships provide an explanation for important aspects of mobility systems within organizations. Additional consequences include the probability that workers will be sympathetic to collective bargaining and horizontal movements between organizations. The three relationships between individual and organizational performance also act as a primary determinant of control processes within organizations and the individual adaptations that result.

Abstracts from the JOURNAL OF MATHEMATICAL SOCIOLOGY 7(2) 1980

PARSONS, Donald O. (Ohio State). *"The marriage market and female economic well-being."*

Social scientists have for some time viewed mate selection as the outcome of an exchange of attributes among the parties involved in an implicit marriage market. Various demands for and supplies of attributes and (promised) personal services are exchanged in a manner which sorts mates into appropriate marriage contracts. Elements of this exchange theory of marriage are obvious in Waller (1938), Goode (1966), Edwards (1969), Elder (1969), and Taylor and Glenn (1976). A number of economists, notably Becker (1973, 1974), Freiden (1974), Keeley (1973, 1976), and Kogut (1972), have adapted economic models of exchange to the marriage market, providing formal structure to earlier, largely verbal models of mate selection.

Although not stressed in the mate selection literature, the same marriage match process determines an equilibrium price structure for male and female traits and personal services. It has been widely observed that consumption shares within the family differ substantially by sex across time and cultures and, within cultures, across social classes. Attempts to deal with this issue empirically have been hindered by the measurement problem inherent in isolating individual consumption levels within the family when many consumption activities are jointly undertaken.

Sociologists have attempted to analyze this phenomenon by considering the locus of decision making within the family. Blood and Wolfe (1960) attempt to establish a "resource" theory of household decision making much in the spirit of this piece using information on decisions. Reid (1934) had pointed out much earlier the difficulty of such an approach, namely that decision making may be the result of specialization of work and not an intrinsic measure of "power." See also Safilios-Rothschild (1970).

LEUNG, Yee (Chinese University of Hong Kong). *"A fuzzy set analysis of sociometric structure."*

A fuzzy set theoretical framework is proposed for the analysis of sociometric structure characterized by vagueness of liking between individuals and a person's relative degree of belonging to a social group. Max-min transitivity of a fuzzy relation is employed as a basic concept to examine the degree of liking and clustering in group structures. A distance model based on min-max transitivity is also formulated as a special case of transitivity concepts. It appears that the current methodological construct provides a more appropriate perspective in the analysis of the group structure properties.

FRANK, Ove (Lund). *"Transitivity in stochastic graphs and digraphs."*

Transitivity is a central concept for many relational structures, e.g., clusterings and partial orderings. Stochastic graph models which are used to describe uncertain relational structures can be tested for transitivity by using indices based on triad counts. The pure random variation of such counts and indices is investigated assuming simple stochastic models. Some earlier results on transitive triads in tournaments are generalized, and a modified version of a randomization model by Holland and Leinhardt which simplifies the required moment calculations is introduced.

KARMESHU and R. K. PATHRIA (Waterloo). *"Diffusion of information in a random environment."*

The effects of random environmental fluctuations on the process of diffusion of information in a social group are investigated. The methodology of this investigation is based on a study of "stochastic differential equations with fluctuating parameters," under the assumption that the time scale of the fluctuations in the various parameters is much shorter than that of the macroscopic variables of the system. This enables us to convert a stochastic differential equation into a Fokker-Planck equation which in turn can be solved for obtaining an explicit expression for the stationary state of the system. As an illustration, we analyze various cases of Bartholomew's model of diffusion of information in a randomly fluctuating environment and calculate the relevant statistical characteristics of interest. The resulting effects of environmental stochasticity on the process of diffusion of information are compared with the ones arising from the intrinsic stochasticity of the process, the latter depending inevitably on the size of the population group involved.

KARMESHU and R. K. PATHRIA (Waterloo). *"Time development of a Markov process in a finite population: application to diffusion of information."*

A systematic procedure of truncating the hierarchy of moment equations describing the stochastic evolution of a Markov process in a finite population is developed. The procedure makes use of the asymptotic expression for a certain higher-order moment of the relevant probability distribution and yields finite-size corrections to all lower-order moments. The usefulness of the method is illustrated by applying it to study the mean and

the variance of the stochastic variable $n(t)$, the number of active spreaders at time t , in Bartholomew's model of diffusion of information. The results thus obtained are compared with the ones following from the exact probability distribution for the model (wherever known) and the agreement between the two sets of results is found to be remarkably good.

YAMAGUCHI, Kazuo (Chicago). "A mathematical model of friendship choice distribution."

A mathematical model of friendship choice distribution is proposed. The model differs from other models in that it takes into account certain structural factors in sociometric relations. Two theoretical distributions are derived from a set of assumptions as two approximations to satisfy those assumptions. One distribution is a well-known negative binomial distribution, but its derivation is new. The other distribution has an unfamiliar mathematical structure but it shares certain features with the negative binomial distribution. The two parameters of these distributions are regarded as measures of the degree of expansiveness and the degree of local cohesiveness of friendship ties. The model is tested with several sets of empirical data and shows usefulness as a descriptive tool.

LINDENBERG, Siegwart (Groningen). "Marginal utility and restraints on gain maximization: the discrimination model of rational, repetitive choice."

The Siegel-Ofshe two-component repetitive choice model, while demonstrating great predictive accuracy, is difficult to interpret and is very data-inefficient. Reasons for these shortcomings are analyzed in detail, and a modified model is suggested. The new model can be more easily interpreted, provides greater data-efficiency, and furthermore, holds up well when tested with available data. The importance of the new "discrimination" model for sociology lies mainly with two factors: first, it can explain deviations from gain maximization, and second, it demonstrates that individuals do not act directly on the basis of values (utility) but rather on the basis of marginal utility. A comparison of the discrimination model with the Camilleri-Berger model (a model in which marginal utility plays no role) favors the former.

THE INSURGENT SOCIOLOGIST. Special issue on power structure research 9(2-3) Fall 1979 - Winter 1980

DOMHOF, G. William (California-Santa Cruz). "Introduction."

The essays in this volume continue to address basic questions raised by and about power structure research over the past three decades. The "pluralist" versus "power elite" versus "ruling class" argument lies just off stage when it is not the central focus, and the more recent "instrumentalist" versus "structuralist" debate is an explicit concern in many of the papers. What is gratifying about these essays is that they respond to the theoretical debates with original empirical findings that often are the result of new research techniques. It is this fact which gives hope that power structure research will continue to play the unique and relatively independent role it has carved out during its first three decades.

Marvin Dunn's opening essay describes a relatively unknown mechanism of ruling-class coordination, the family office. Dunn learned about the existence of this office somewhat inadvertently, for he began only with the interesting idea that studying a wealthy family in detail might cast light on many of the questions that concern power structure researchers. He soon discovered that the large family in question coordinates much of its economic, philanthropic, and political activity through a common office. Thus, Dunn is able to use his new information to call into question the claim that there is no longer a ruling class in America because wealthy families were unable to solidify their positions of power.

Richard Zweigenhaft brings new perspectives to general questions of ruling-class flexibility and class consciousness by examining the assimilation of successful business people of Jewish background into the social organizations of the upper class. Not only does he give us original substantive information on upper-class anti-Semitism, but he shows us that what Jewish business people do and do not list in a who's who biography is very revealing about their economic position and class consciousness. Consciousness from who's who biographies? But I'll let you read it for yourself.

Susan Ostrander gets her information on class consciousness in the way we might expect someone to get such information--by interviewing. But she adds an interesting twist by interviewing women of the upper class, which gives her a rather unique vantage point. Moreover, Ostrander stresses that she did not learn about class consciousness by asking about it directly. Instead, she learned about it from questions that she didn't think related to class consciousness at all. She was as surprised by many of her findings as you will be, which not only affirmed her in the belief that members of the upper class are class conscious, but led her to an original formulation of what we should mean by the concept itself. It is at the least a provocative approach that she suggests, and it nicely encompasses the kinds of findings presented in the essays by Dunn and Zweigenhaft.

Allen Whitt's essay on the involvement of corporate leaders in one aspect of California politics in effect builds on the understandings solidified in Ostrander's essay. Whitt studied in detail the activities of California business leaders in relation to several ballot initiatives concerning highways and mass transit. He found that these corporate capitalists were quite organized and purposeful in their behavior right down to the last barrel of oil and bank asset, which determined how much they gave in cash contributions to various political campaigns. But it is not barrels of oil and bank assets that ultimately interest Whitt, and he uses his findings to make insightful observations about the instrumentalist-structuralist dichotomy.

The next essay, by Richard Ratcliff, uses his dimensions of "social prominence" and "economic power" to show who the well-organized and purposeful capitalists are in St. Louis when it comes to involvement in the civic organizations that attempt to shape the political and cultural climate of that city. But Ratcliff also goes one step further, exploiting his unique data on bank loans and mortgages to show that capitalist class consciousness is not smoothly comprehensive and without contradictions. The bank directors he found in the civic groups trying to "save" downtown St. Louis are the same bankers who invest their funds outside of St. Louis, and especially outside of neighborhoods where people of low and moderate incomes reside.

A different kind of data was utilized by Eric Lichten to study the financial crisis that enveloped New York City in the mid-1970s. It allows him to highlight the way in which class conflict enters into the power equation. Through a careful sifting of government reports and his perceptive interviews with business, trade union, and government officials in the city, he shows how the demands of city workers and poor people constrained the hand of capitalists until the situation had reached a crisis point. It was only then, and with the help of state and federal levels of power, that the corporate leaders were able to contain elected officials and trade union leaders, and impose fiscal austerity at the expense of the working class in general.

The essay by Irvine Alpert and Ann Markusen moves us to the final third of this issue and a consideration of power at the national level in America. Their essay picks up where Ostrander left off, with an explicit discussion of class consciousness. This time, however, the concern is with the consciousness of the hired academic experts employed by the policy-oriented think tanks financed and directed by members of the national corporate community. Alpert and Markusen explain how such experts end up working to solve problems of corporate capitalism even while they think of themselves as independent and neutral professionals. They address themselves directly to the instrumentalist-structuralist dichotomy, believing the insights into professional consciousness afforded to them as observers at The Brookings Institution and Resources for the Future allow them to bridge some of the gaps between the two sides of this argument.

The essays by Michael Useem, on the one hand, and Harold Salzman and G. William Domhoff, on the other, take us into the question of direct involvement in government by corporate leaders. Useem is able to utilize statistical techniques of a clear and straightforward nature to show just which business people are likely to become involved in formal governance at the state and national levels. Among many interesting findings, he shows that it is the biggest of big business leaders and those with multiple corporate directorships and memberships in national policy organizations who are most likely to serve on federal advisory committees and as trustees of major universities.

If Useem tells us which business people participate in governance, Salzman and Domhoff try to establish the degree to which business people are appointed to positions in the executive branch of the federal government for 1970. As the introduction to their essay informs us, this is one of the oldest and most contested issues in power structure research. It got its start in claims by Mills in *The Power Elite*, and it has been the subject of controversy ever since, with pluralists denying the extent of these appointments and structural Marxists denying any significance to the appointments, whatever their extent. Meanwhile, say Salzman and Domhoff, there is a great deal of interchange of personnel between the corporate community and the executive branch, which raises a problem for those who say that capitalist states function best when there are no capitalists in them.

In the end, we are brought back to the old question of what implications should be drawn from position-holding in civic groups and government, and that is why we have saved the essay by Nancy DiTomaso for last. By responding to the critics of the positional method so frequently employed in power structure research, she provides the theoretical basis for the empirical findings that have been presented in several of the earlier essays, and especially that by Salzman and Domhoff. A sociologist very familiar with the instrumentalist-structuralist debate, DiTomaso approaches the problem from a fresh angle by drawing out the lessons for power structure research that are contained in the detailed literature of organizational sociology, a field largely ignored by power structure researchers in the past. It is a welcome turn of events to see this more conventional counterpart of power structure research provide new perspectives to disputants within the power structure fraternity.

THESIS SUMMARIES

HUMAN COMMUNICATION NETWORKING IN A TELECONFERENCING ENVIRONMENT

Ronald Rice (Ph.D. Thesis, Institute for Communication Research, Stanford, 1981)

ABSTRACT

The objectives of this dissertation are to study the communication patterns of groups operating in a nation-wide computer conferencing environment, how these patterns change over time, the nature of group- and system-level structure, and what implications these patterns and changes have for telecommunications design, policy, and implementation.

The primary procedures used to detect and describe the communication patterns of interest, over time, include longitudinal plots of useful communication ratios, log-linear models of group structure, and transition matrices showing patterns of development in system structure. Additional procedures include regressions, clustering and multidimensional scaling.

Results based on analyses of 25 months of computer-monitored data generally support the following:

- (1) the nature of the user group appears to be a prime determinant of how that group uses a medium such as computer conferencing;
- (2) groups differ in their preferences for internal communication;
- (3) measures of internal linkages are useful indicators of group roles, behavior and cohesion;
- (4) reciprocity in communication becomes, over time, a fundamental aspect of group relations in a system;
- (5) ratios of messages sent to messages received also may indicate levels of group cohesion, but in general are group-independent and fundamental components of communication in a large-scale system;
- (6) it is normal for members to "electronically migrate" outside their groups;
- (7) stability in group relations occurs moderately early in the development of long-term, large-scale computer-moderated communication systems;
- (8) groups may be characterized as occupying kinds of system-wide roles, based upon the level and direction of information flows, in rigorous and substantively useful ways;
- (9) information roles in which groups receive, send, and keep information at levels all less than average levels of other groups (and so are called isolates), or at levels all greater than average levels of other groups (primary roles), are the two most likely of roles, and all other kinds of roles quickly transit into either of these roles, with transiting into or staying in the isolate role the most likely. The route from isolate to primary is unlikely and indirect;
- (10) the use of computer-monitored communication data which were far more longitudinal, complete, and free of self-report discrepancies, allowed analyses of the development of communication networks in a complex system that simply would not have been possible otherwise;
- (11) both the network analysis methods used in this study and the teleconferencing environment for analysis, have proved useful in the study of human communication processes with new communication technologies.

Overall, the results show that a large-scale telecommunications environment such as computer conferencing does not homogenize group communication activity, but does provide indices of communication activity which could be used to detect groups' potential patterns of development. System structure changes over time as groups occupy different roles which are based on the flows of information within the system.

GENERATIONAL RELATIONS AND SUCCESSION: A STUDY OF AUTHORITY AND RESPONSIBILITY IN FAMILIES

Carolyn J. Rosenthal (Ph.D. Thesis, Sociology, McMaster University, 1982)

ABSTRACT

This study develops two novel concepts in the study of family life: the familial division of labour and family headship. Together, these concepts allow for a characterization of family life which is at the same time somewhat novel and supportive of or contributory to a broader understanding of many phenomena of family life which have been observed and reported. The study of the division of labour directs attention to aspects of family structure which have not been systematically investigated elsewhere and which are shown here to be socially real.

The data for this study were collected through interviews with a stratified random sample of 464 men and women aged 40 and over living in Hamilton and Stoney Creek, Ontario. All had lived in Canada for at least ten years. Interviews averaged one and one-half hours and were conducted in English.

The division of labour is investigated through task-specific positions which involve responsibilities and activities enacted on behalf of the extended family and which contribute to family solidarity and continuity. Specifically, the positions of kinkeeper, comforter, placement officer, financial advisor, and ambassador are shown to exist in a division of labour in contemporary families. While the division of labour is a widespread aspect of family structure, there is great variability among families as to its shape and extensiveness.

The concept of headship is developed through an exploration of a central leadership position, the head of the family. The term refers to the person who is understood by others to possess authority and exercise the most leadership in the family. Most families in the study had such a person.

The concept of familial succession brings together interests in structure and process, and the ways in which the meaning and experience of family life change for individuals as they grow older. Succession refers to the passing of family responsibility and authority from one generation to the next, a process which is investigated through an examination of patterns of occupancy in headship and the familial division of labour, and the ways in which these change through time. The study argues that changes in the locus of responsibility in headship and the division of labour are tied to significant family life course events as well as to aging and mortality.

When the concepts of the familial division of labour and headship are used as a basis for analysing the family as a type of work organization, the organizational structure of families is shown to follow the same principles as any work organization. An ideal typology of families--bureaucratic, democratic, autocratic, and anarchic--is developed, based on their organizational structure.

The study shows that the familial division of labour and headship are widespread phenomena which were meaningful to study participants. People were able to discuss aspects of the various positions in detail. These positions persist over time, and in many families they are passed on from one generation to the next in socially meaningful ways. Findings indicate that generational succession does occur, with each new generation coming to see itself as taking up family responsibility. However, elderly individuals, as their generational peers die, are less likely than younger family members to perceive the wider family as being an active, supportive group. This suggests a tempered view of the positive picture of intergenerational relationships conveyed by extant literature on families in later life.

**AN INTELLIGENTLY STRUCTURED
CORRESPONDENT NETWORK
ELIMINATES FRICTION
IN ALL THE RIGHT SPOTS.**

ABSTRACTS

ALBA, Richard D. (SUNY - Albany). "From small groups to social networks: Mathematical approaches to the study of group structure." *American Behavioral Scientist* 24(5):681-94. 1981.

To note the ancestral resemblance between the network analysis of the 1970s and the sociometry of the 1940s and 1950s is not to deny the significance of network analysis as a development. Network analysis expanded the range of interest far beyond sociometry's focus on affective relations, and greatly enlarged the sizes of the groups to which attention was paid. Network analysis brought with it a maturation of the methods used to detect group structure. In contrast to the rather primitive state of many of the methods of the 1940s and 1950s, the details of the more recent methods have been clearly worked out, in part because they have been tested against substantial data sets. Moreover, the correspondence between technical procedure and substantive conception has sharpened as the rationales behind methods have developed. The distinction between relational and positional approaches provides an important instance of this increased clarity.

ALBA, Richard D. (SUNY - Albany). "Taking stock of network analysis: A decade's results." in Samuel Bacharach (ed.), *Perspectives in Organizational Research*. Greenwich, Conn.: TAI Press. Forthcoming.

In the 1970s, network analysis experienced a period of youthful flowering, with the germination of numerous ideas for analyzing network data. This paper surveys those ideas, fitting them into broader strategies of analysis. It also attempts to identify the remaining obstacles blocking a mature phase, in which network analysis would provide a set of well-developed and well-understood procedures capable of being used on problems of substantial scope.

ALBAR, Richard D., and Gwen MOORE (SUNY - Albany). "Ethnicity in the American elite." *American Sociological Review* (forthcoming, June 1982).

A common view of the political elite in the United States is of a WASP-dominated group which excludes nearly all persons of less favored origins from elite positions, activities and networks. We assess the accuracy of this conception, using data from a unique set of interviews with 545 top position holders in powerful political, economic and social institutions in the United States. We examine ethnic representation within the elite as well as its impact on elite activities and interaction. The evidence reviewed here is quite inconsistent with the usual portrait of an ethnically exclusionary establishment but does indicate that ethnic stratification retains an important impact on entry into the elite.

ALDRIDGE, Howard, and David A. WHETTEN. "Organization-sets, action-sets, and networks: making the most of simplicity," in Paul C. Nystrom and William H. Starbuck (eds.), *Handbook of Organizational Design*. New York: Oxford University Press, pp. 385-408. 1981.

A major problem confronting persons seeking to design or study networks of interorganizational relations is how to cope with the seemingly unmanageable complexity of social systems. Simply put, designers must decide whether everything is related to everything else. If so, then designers or investigators face an overwhelming analytic problem--they must deal with a population of organizations as a whole, where the appropriate place to begin appears completely arbitrary. The line of inquiry pursued here begins with the hypothesis that things are not quite as complex as they seem, and that networks can be disaggregated into organization-sets, action-sets, and partial networks, without a loss of theoretical coherence.

ASHTON, John R. (Southampton University and Wessex Regional Health Authority). "Patterns of discussion and decisionmaking amongst abortion patients." *Journal of Biosocial Sciences* 12:247-59. 1980.

Discussion and decision-making amongst Wessex women who obtained an induced abortion at two centres are studied. The most important discussants were family doctors, boy-friends, girl-friends, husbands, mothers and pregnancy counsellors. In the majority of key discussions which occurred the patient had been able to discuss the pregnancy fully, had a sympathetic reception and met a discussant who was favourable to her having a termination. However, younger patients were less likely to have such an experience and were later in arriving at their abortion decision and were more prone to uncertainty. It is argued that alternative counselling and referral systems need to be developed for younger patients with unplanned pregnancies who may request abortion.

BALASSA, Bela (Johns Hopkins). "Trade in manufactured goods: Patterns of Change." *World Development* 9(3): 263-75. 1981.

This paper looks at the changing pattern of trade in manufactured goods between the developed industrial countries and the developing countries. It first reviews recent changes in this trade and the policies applied. Then it analyzes the comparative advantages of the industrial and the developing countries and indicates the commodity composition of this trade. The implications of the results are drawn with reference to the benefits of trade in manufactured goods for the participants.

BIELBY, William T. (California - Santa Barbara) and Arne L. KALLEBERG (Indiana). "The structure of occupational inequality." *Quality and Quantity* 15:125-50. 1981.

Inequalities associated with a system of social stratification result from two related but analytically distinguishable social processes; differential rewards associated with different positions in the social system, and the process of allocation of individuals to those positions. The former process concerns positional inequality; the latter process concerns the movements of individuals among positions. Over the past fifteen years, research on social inequality in the United States has focused almost exclusively upon the movements and attainments of individuals in an exogenously given (and often unspecified) occupational structure.

BLAU, Judith R. (SUNY-Albany) "Paradoxical consequences of excess in structural complexity: a study of a state children's psychiatric hospital." *Sociology of Health and Illness* 2(3):277-92. 1980.

This paper examines how a unique organization structure promotes a high level of care and treatment in a large, public children's psychiatric hospital. The structure--complex and interdependent--is best understood in terms of three dimensions of staff relations: administration, child care, and clinical practice. Because these dimensions are independent of one another and each delineates positions for every staff member, everyone occupies several statuses simultaneously and thus has multiple role relations with nearly every other staff member. Consequences of this multiple-matrix organization are: the importance of emergent coalitions and diffuse exchange relations for power and influence; a treatment approach that depends on professional expertise but must be legitimized in terms of lay values concerning youngsters; problems of morale and ambivalence. The complex structure engenders a high level of humane care and expert treatment, in part because multiple role relations foster a holistic view of youngsters.

BLAU, Judith R. (SUNY - Albany) and Peter M. BLAU (Columbia and SUNY - Albany). "The cost of inequality: Metropolitan structure and violent crime." *American Sociological Review* 47(Feb):114-29. 1982.

The hypothesis tested is that variations in rates of urban criminal violence largely result from differences in racial inequality in socioeconomic conditions. Data on the 125 largest American metropolitan areas (SMSAs) are used to ascertain whether this hypothesis can account for three correlates of violent crime differently interpreted in the literature. Criminal violence is positively related to location in the South, which has been interpreted as the result of the Southern tradition of violence. It is positively related to the proportion of blacks in an SMSA, which has been interpreted as reflecting a subculture of violence in ghettos. And it is positively related to poverty, which has been interpreted as the emphasis on toughness and excitement in the culture of poverty. The analysis reveals that socioeconomic inequality between races, as well as economic inequality generally, increases rates of criminal violence, but once economic inequalities are controlled poverty no longer influences these rates, neither does Southern location, and the proportion of blacks in the population hardly does. These results imply that if there is a culture of violence, its roots are pronounced economic inequalities, especially if associated with ascribed position.

BLAU, Peter M. (Columbia and SUNY - Albany), Terry C. BLUM (SUNY - Albany), and Joseph E. SCHWARTZ (Columbia). "Heterogeneity and intermarriage." *American Sociological Review* 47(Feb):45-62. 1982.

Two theorems deduced from the primitive assumptions and definitions of a macrosociological theory of social structure are tested with data on intermarriage in the 125 largest American metropolitan areas (SMSAs). The data base is the public use sample of the 1970 U.S. Census. The two theoretical predictions are: (1) a group's relative size is inversely related to the proportion of its members who are outmarried; and (2) an SMSA's heterogeneity is directly related to the rate of intermarriage in it. The underlying assumption is that the structural constraints of size distributions affect marriage notwithstanding cultural values promoting ingroup marriages. The data confirm the two predictions (corroborating the underlying assumption) for most size differences and most forms of heterogeneity examined. Thus, heterogeneity in national origins, mother tongue,

birth region, industry, and occupation raise intermarriage rates in these respects. Although racial heterogeneity does not have this predicted effect, the reason is that the great socioeconomic differences between races consolidate racial boundaries and thereby counteract the influence of heterogeneity on intermarriage. Empirical evidence supports this explanation: when racial income differences are controlled, the predicted positive relationship between racial heterogeneity and intermarriage becomes apparent.

BOONE, Margaret S. (Georgetown). "The social structure of a low-density cultural group: Cubans in Washington, D.C." *Anthropological Quarterly* 54(2):103.

Residential dispersion, commuter work patterns, high female labor force participation, and telephone-based networks characterize the Cuban immigrant group in Washington, D.C. This paper explores the origins of the social structure of the group, both the traditional structure, and also that which arises in response to the receiving Washington context. Cubans remain stratified, but are ranked increasingly on the basis of education and occupation rather than by family name. However, for recreational purposes, suburban social networks remain very tight among the wealthier, and endogamy is strongly encouraged. Certain Cuban values such as, the importance of education, vocal participation, and ambition, can be traced back both to their more immediate Cuban history, as well as to Iberian industriousness, learning, and letters. Washington, D.C. has provided an optimal environment for the re-working of certain traditional cultural motifs.

BREAKEY, W. R. "Community support systems and urban mental health." *Urban Health* 9(9):31-34. 1980.

Though, as the author points out, psychiatry over the years has shown a tendency toward faddism for this or that new viewpoint, the current emphasis on community support systems is more than a fad. It is a realization that "there are important resources for the promotion and restoration of mental health within communities far beyond the sphere of influence of psychiatrists and allied professionals. The many social systems of which individuals are members have an important role in promoting and restoring mental health. Pilot projects have shown that 'natural' support systems in communities can collaborate with mental health professionals in programs designed to promote mental health in communities. Government plans for community support systems for deinstitutionalized psychiatric patients have been inadequate and have largely ignored natural support systems." The author argues that planners and providers should take advantage of the considerable resources for support to be found in the overlapping social systems already existing in urban communities.

BURT, Ronald S. (California - Berkeley). "Studying status/role-sets as ersatz network positions in mass surveys." *Sociological Methods and Research* 9(3):313-37. 1981.

A method is described for interviewing a random sample of persons drawn from a large population so as to describe role-sets defining statuses in the population social structure. The key to the method is a connection between the concept of an actor's network position in social structure and combinations of attributes that define statuses in the social structure. With data obtained in a survey interview with a randomly selected respondent, it is possible to describe the relational pattern defining his "ersatz network position" in the population social structure from which he has been drawn. Given ersatz network positions for a representative sample, it is possible to test hypotheses concerning status/role-sets in terms of which the population is stratified.

CARROLL, William K, John FOX, and Michael D. ORNSTEIN (York). "The network of directorate links among the largest Canadian firms." *Canadian Review of Sociology and Anthropology* 19(1):44-69. 1982.

This paper examines the relationships among large firms in Canada manifested in interlocking directorates. The analysis focuses on two closely related aspects of the interlocking director network: the extent of integration among the boards and management of large corporations; and the relationships between structural characteristics of firms and their network position. We find that large-scale capital in Canada is socially integrated in a densely connected network of directorship interlocks, a network which does not appear to divide into discrete and potentially competing groups. Financial firms, especially the major banks, occupy relatively central positions in this network and serve as articulation points, tying together industrial and commercial companies. In light of these findings, we discuss two features of the Canadian economy, which have been the subject of recent debate: the high levels of foreign investment in Canada; and the degree of centralization within the financial sector.

CARTY, R. K. (British Columbia). "Brokerage and partisanship: politicians, parties, and elections in Ireland." Canadian Journal of Political Science 14(1). 1981.

Brokerage and partisanship are the predominant elements of electoral politics in Ireland. But there is a paradox in this characterization; models of those styles of politics suggest they represent distinctive, and seemingly incompatible, modes of political linkage and party competition. This article uses these two concepts to disentangle the dynamics of Irish party competition, and, as a deviant case study, provides an analysis of the limitations of sociologically rooted models of politics.

CLARKE, Michael (Birmingham). "Where is the community which cares?" British Journal of Social Work (October 1982).

This paper attempts to answer three questions. In what does community consist in industrialized societies and why does it have such evaluative appeal? What are the evaluative assumptions behind current emphasis on community care and are attempts at it inevitably authoritarian? Can communities be redeveloped where they have apparently disintegrated? The answer to the first question stresses the management of personal networks of supportive and socially integrative friendship relationships as the basis of community in modern urban societies, and the independence of these from limited neighbourhood locations, because of modern communications systems. In answer to the second question, community care is argued to be impossible if the reconstruction of solidary neighbourhood communities is what is envisaged. On the other hand the level of competence necessary to develop and manage an evolving supportive friendship network may be beyond the capacities of many of the dependent and inadequate who are presented as candidates for community care. Nonetheless, in answer to the third question, the mobilisation of a diverse range of organised social resources, voluntary and state financed, offers both the best hope of achieving social competence and autonomy and of avoiding authoritarian dependence upon limited sources of assistance.

COOK, Karen, Richard EMERSON, Mary GILLMORE, and Toshio YAMAGISHI (Washington). "The distribution of power in n-person exchange networks: theory and experimental results." Paper presented at the 76th Annual Meeting of the American Sociological Association, Toronto, August 1981.

The distribution of power in network structures is examined from two theoretical positions: graph-theoretic conceptions of centrality and power-dependence theory. Opposing predictions from these perspectives are then tested in a laboratory experiment using a simple five person exchange network, and in more complex networks using a computer simulation. In both cases, power-dependence predictions are unambiguously confirmed. Based on these findings we begin new theory development which will reconcile conceptions of centrality with principles of power and dependence.

CUMMING, Elaine (Victoria) and Charles LAZER (Waterloo). "Kinship structure and suicide: a theoretical link." Canadian Review of Sociology and Anthropology 18(3):271-82. 1981.

Marriage lowers the risk of suicide for men more than it does for women. It is proposed that the particular role of women in maintaining both normative and interactive integration of kinship systems on behalf of men best accounts for this particular finding. Such an explanation is compatible with existing theories of both kinship and suicide. Rates of reported suicide for all Canada for the years 1951, 1956, 1961, 1966, and 1971 were used to show that the extra protection of men is consistent through time, and the theoretical explanation offered was shown to receive support from a preliminary comparison of suicide rates in English and French Canada, in which kinship structure differs, as well as from suicide rates in matrilineal and patrilineal societies.

DARROCH, A. Gordon (York). "Migrants in the nineteenth century: fugitives or families in motion?" Journal of Family History 6(3). 1981.

In this article I reconsider some aspects of the rhythm of geographic mobility. A common interpretation implies that nineteenth-century mobility was largely rootless, individualistic wandering. Reexamining a variety of studies, I offer another interpretation of migration. I argue that migration was very often undertaken within family and kinship networks, or by whole families. The effects of widespread migration were not merely modified or deflected by the bonds of family and kin, but migration itself was often undertaken within family-centred networks and as an integral part of a familial economic and moral order. I suggest several specific historical circumstances in which migration under family sponsorship was especially likely.

DAVIES, Mark and Denise B. KANDEL (Columbia and New York State Psychiatric Institute). "Parental and peer influences on adolescents' educational plans: some further evidence." American Journal of Sociology 87(2): 363-87. 1981.

The specific influence of parents and peers on adolescents' educational aspirations is examined in a relational sample of matched adolescent-parent-best friend triads ($N = 762$). A nonrecursive model of peer influence is also estimated. Most previous estimates of interpersonal influences are based on the adolescent's perceptions of the significant other's attitudes or behaviors rather than on the significant other's self-reports of these attributes. Estimates of interpersonal influences based upon self-reported attributes are presented. It is shown that perceptual measures inflate estimates of interpersonal influence. Independent data from parents document that perceptual measures of significant others' attributes reflect not only attributes of the person being perceived but also attributes of the perceiver. Parental influence on the adolescent's aspirations is stronger than peer influence, and this influence does not decline over the adolescent years. Peers are involved in a process of reciprocal influence, and peer influences are stronger among girls than among boys.

DAVIS, Roger H. (F.B.I. Academy). "Social network analysis: an aid in conspiracy investigations." F.B.I. Law Enforcement Bulletin, December 1981:11-20.

All criminal enterprises share similar properties which, if recognized, can aid in investigating conspiratorial crime. While conducting a complex conspiracy investigation, police officers not only must identify the key participants but also grasp the nature of the interconnections between conspirators to determine the scope of an illicit operation. One process, social network analysis, can assist in penetrating and simplifying those complex interpersonal connections.

DENI, Richard, Joseph VOCINO, and Michael EPSTEIN (Rider College). "Effects of kinship, age, and sex on social preferences in rats measured in an operant response situation." Bull. of the Psychonomic Society 16(1):31-33. 1980.

Latane and his co-workers have reported that several static stimulus variables do not affect social attraction between laboratory rats tested in an open-field apparatus. These variables include absence of fur, color of fur, perfumed fur, and sex of subject. Experiments are reported here that suggest that static stimulus variables related to kinship, age, and sex of companion exert a significant influence on social attraction and social exploration measured in an operant response situation. Social operant behavior varied as a function of stimulus factors in several situations: littermates paired with other littermates vs. strangers, dams exposed to young offspring vs. young strangers, dams exposed to young offspring vs. adult offspring, and adult rats exposed to their dams or to strange females.

DOREIAN, Patrick (Pittsburgh). "Linear models with spatially distributed data: spatial disturbances or spatial effects?" Sociological Methods and Research 9(1):29-60. 1980.

This article deals with linear models for which data have been aggregated over well-defined geographic areas. Such data may be generated by spatial processes, and these may be represented in the form of spatial autocorrelation in the disturbance term or directly in the form of a spatial effect. This article details the derivation of Ord's (1975) MLE procedure for the spatial disturbances model and contrasts it with this MLE procedure for the spatial effects model. These alternative model specifications and estimation procedures are then illustrated by a variety of examples. These MLE procedures for the spatial models are also contrasted with conventional regression procedures (which ignored geographical space). If there is spatial autocorrelation present, an MLE procedure is preferable.

EVANS, Peter B. (Brown). "Recent research on multinational corporations." Annual Review of Sociology (7):199-223. 1981.

At a micro level, MNCs offer a unique opportunity for organization theory. They provide limiting cases for the investigation of problems of organizational scale and control at a distance as well as exceptional instances for the analysis of the interaction of organization and environment. On the one hand, the organizational theorist can study replicated sub-units of the same organization (subsidiaries) located in widely separate, culturally and politically diverse environments. At the same time MNCs provide the possibility of comparing strategies and functioning among a set of organizations with the same goals (e.g., profitable production of passenger cars) but diverse histories and origins (e.g., U.S., European, and Japanese MNCs) operating in the same environment (e.g., Mexico). One might expect the pages of the Administrative Science Quarterly to be brimming with studies of MNCs, but they are not.

The discussion that follows is designed to draw attention to the relative neglect of MNCs by sociologists. My aim is to stimulate new work by researchers who are interested in development, class structures in advanced societies, or organizations but have somehow passed over the possibility of using the study of MNCs as a means of attacking these issues. The sections on MNCs and the sociology of organizations, and on the relevance of MNCs to the analysis of class structures, are primarily programmatic. Only in the one area in which the contribution of sociologists has been most substantial, the investigation of the impact of MNCs on the process of development, is the discussion more retrospective.

Those considering research on MNCs should, first of all, be aware of the research resources that have been accumulated. Over the past two decades, several relatively rich paradigms have been elaborated, especially concerning MNCs and development. As a result of previous data gathering efforts, any researcher interested in developing quantitative models of MNC behavior and its consequences can build on a foundation of existing data sets. A selective review of the theoretical and empirical resources available to researchers should serve as a positive preface to subsequent complaints about the number of lacunae in the existing literature.

FELL, D. K. (Queensland). "Symmetry and complementarity: patterns of competition and exchange in the Enga Tee." *Oceania* 51(1). 1980.

This paper is about the *tee* exchange system among the Tombema-Enga of the Western New Guinea Highlands. I argue that ceremonial exchange promotes political integration and social control. But social control does not arise from precarious alliances and tenuous relations of competition between givers and receivers, nor from the shame incurred from being forced to accept a large gift; rather, individual partnerships provide secure alliances that cut across clan boundaries and ultimately reduce their efficacy as competitive war-making units. In Tombema-Enga society warfare and exchange are opposing principles: the *tee* has never been an instrument of hostility and aggression between groups. Corporate clans are not *tee*-making units. Rather, individuals exchange, exchange is a symbol of their friendship, and, as I shall show, *tee* partners are not competitors but allies. In the *tee*, competition for prestige is channelled inward and a man's surest support comes from outside his immediate descent group.

FELD, Scott L. (SUNY - Stony Brook). "The focused organization of social ties." *American Journal of Sociology* 86(5). 1981.

Sociologists since Simmel have been interested in social circles as essential features of friendship networks. Although network analysis has been increasingly used to uncover patterns among social relationships, theoretical explanations of these patterns have been inadequate. This paper presents a theory of the social organization of friendship ties. The approach is based upon Homans's concepts of activities, interactions, and sentiments and upon the concept of extra-network foci organizing social activities and interaction. The theory is contrasted with Heider's balance theory. Implications for transitivity, network bridges, and density of personal networks are discussed and presented as propositions. The focus theory is shown to help explain patterns of friendships in the 1965-66 Detroit Area Study. This paper is intended as a step toward the development of integrated theory to explain interrelationships between networks and other aspects of social structure. Implications for data analysis are discussed.

FELMLEE, Diane L. (Indiana). "Women's job mobility processes within and between employers." *American Sociological Review* 47(Feb):142-51. 1982.

This research examines the role of the firm in women's job mobility using a dynamic approach. Rates of women's job to job transitions are analyzed with a multivariate, stochastic model. The data are employment histories derived from the National Longitudinal Survey of Young Women (1968-1973). The results demonstrate the significance and the advantages of firm-internal labor markets in women's employment. First, the process of job mobility differs greatly within and between employers. Voluntary job changes made between employers rely on observable job rewards and general individual resources. Shifts within a firm depend largely on a woman's age and job duration, signifying the importance of seniority and job-specific resources in determining promotions. Second, jobs in firm-internal labor markets offer higher wages and socioeconomic status to women than other jobs.

FISCHER, Claude S. (California - Berkeley). "The public and private worlds of city life." *American Sociological Review* 46(June):306-16. 1981.

The classical theory that urbanism produces interpersonal estrangement is supported by evidence that urbanism is associated with less public helpfulness and more social conflict. This theory is challenged, however, by evidence that urbanism is not associated with residents' having any fewer social ties or suffering higher psychological stress. An alternative theory contends that urbanism produces fear and distrust of "foreign" groups in the public sphere, but does not affect private social worlds. This new survey study supports the latter explanation by reconfirming earlier findings and showing that urbanism is not correlated with distrust of neighbors but is correlated with distrust of "other people" in the wider community.

GALASKIEWICZ, Joseph (Minnesota). "Interest group politics from a comparative perspective." *Urban Affairs Quarterly* 16(3):259-80. 1981.

Two models of interest group behavior are outlined and discussed. The *cooptation model* finds organized interest groups establishing informal contact with city officials and achieving political favors through these informal channels. The *petition model* finds interest groups confronting public officials in the public arena securing favors from city government by threatening to use their resources to build oppositional coalitions. Our goal was to see if structural conditions in a community make one or the other strategy more successful. Our findings suggest that cooptation is more common in cities with less complex economic and social structures, but petition is more common in cities with more complex structures. Furthermore, in cities with weaker city governments cooptation is more common, while petition is more common with strong city governments. Finally, we found an interaction effect that cooptation occurs in complex systems but only if city government is weak.

GALASKIEWICZ, Joseph, and Deborah SHATIN (Minnesota). "Leadership and networking among neighborhood human service organizations." *Administrative Science Quarterly* 26:434-48. 1981.

This study investigated the hypothesis that under conditions of environmental uncertainty, leaders of neighborhood human service organizations would establish cooperative relations on the basis of their own personal connections in the neighborhood or their status group affiliations. Data on the cooperative working relationships among 181 human service public and private nonprofit organizations were examined in four Chicago neighborhoods. In all four neighborhoods, organizations whose leaders had common organizational memberships tended to have cooperative ties with one another. However, in more turbulent areas, public and private organizations whose leaders had a similar racial or educational background were more likely to establish cooperative relationships with one another.

GALASKIEWICZ, Joseph, and Stanley WASSERMAN (Minnesota). "A Dynamic study of change in a regional corporate network." *American Sociological Review* 46(Aug):475-84. 1981.

We adapt a class of new stochastic models for social networks to the study of social change in corporate interlock networks. Data on a regional (Minnesota) network are used to verify several descriptive hypotheses drawn from the existing literature concerning interlocking directorates. We conclude that corporations are more likely to make reciprocal board linkages asymmetric than they are to reciprocate asymmetric ties, popular firms are just as likely as less popular firms to be recruited to new boards, popular firms are more likely than less popular firms to leave boards, and nonfinancial business organizations are more likely to form new board ties with commercial banks and insurance companies than with other nonfinancial firms.

GREEN, Milford B. (Ohio State) and R. Keith SEMPLE (Saskatchewan). "The corporate interlocking directorate as an urban spatial information network." *Urban Geography* 2(2):148-60. 1981.

This paper investigates the urban spatial network of direct and indirect corporate interlocking directorates in the United States for 1978. Emphasis is placed on industrial firms, keeping within the tradition of other corporate linkage studies. The corporate interlocking directorate has been the object of inquiry of social scientists . . . and the federal government. Their concern has been manifested primarily as an investigation of the interlock as a potential collusion mechanism. This study, however, treats the interlock as an urban information linkage network and deals with the highest level of corporate authority.

GREENBAUM, Paul, and Susan D. GREENBAUM (Kansas). "Territorial personalization: group identity and social interaction in a Slavic-American neighborhood." *Environment and Behavior* 13(5):574-89. 1981.

This study examined variations in levels of exterior maintenance and adornment among the residents of a predominantly Slavic-American inner-city neighborhood. Acts of personalizing exterior residential space were conceptualized as territorial marking behaviors. The potential social-facilitative effects of such behaviors were explored. Specific questions were: Is ethnic identity expressed in the exterior personalization of individual households? Are higher levels of personalization associated with higher levels of neighborhood-based social interaction? A field survey was done in which the frontal areas of 459 single-family residences were scored for seven different types of personalizing behaviors. Measures of each resident's neighborhood social contacts were derived from an interview survey with 73 randomly selected households. Information about homeownership and residential stability was obtained for each address using City Directories. Slavic-American households were identified with the assistance of a local Slavic-American businessman. Results indicated that Slavic-Americans personalized more than their non-Slavic counterparts ($p < .0001$), and that homeowners exhibited more personalization than renters ($p < .0001$). Higher sociability scores were significantly associated with both Slavic-Americans ($p < .0001$), and long-term residents ($p < .005$).

Two of the personalization measures, yard attractiveness ($p < .01$), and sidewalk maintenance ($p < .015$), were significantly associated with increased sociability. These results suggest that exterior personalization in neighborhoods may provide an ecological mechanism indicative of group membership and domain. The finding that exterior adornment and neighborhood sociability were positively related is supportive of the view that territorial marking has a social-facilitative role.

HAGOEL, Lea (Tel Aviv). "Urban, multiplex, primary relations: friendship patterns and attachment to place." *Unpublished paper*. 1981.

This paper discusses comparative research on the effects of primary network patterns on attachment to place and identification with community. Gerson, Stueve and Fischer's structural model is described and serves as the basis for examining other research on friendship and kinship networks and community attachment. Recent data collected in the Twin Cities Metropolitan Area (1978) is compared with the Fischer, et al. data (Detroit Area Study, 1965-66 and NORC data, 1967). The American studies are in turn compared with several studies carried out in Israel during the past two decades. There is a convergence of findings across these studies. Increasing primary role multiplexity correlates highly with identification with community. In one of the Israeli studies the presence and age of children and proximity variables seemed also to have strong effects, but in general, the model developed by Fischer et al. is supported. (Further information about this study can be received by writing to Dr. Lea Hagoel, 18 Har'el St., Haifa, 34555, Israel.)

HANSELL, Stephen (Johns Hopkins). "Ego development and peer friendship networks." *Sociology of Education* 54 (Jan):51-63. 1981.

This study investigated the relationship between ego development and the structure of students' friendships. Based on ego development theory, the reciprocation of friendship choices in dyads was predicted to peak at middle ego development levels and be lower at high and low levels of ego development. Friendship choices between peer cliques were expected to be low at middle range ego levels but high at the higher and lower ego levels. Results supported these hypotheses for girls only, suggesting a sex difference in the importance of peer friendship structures for personality development. Girls at high ego development levels also had unique roles as liaisons between cliques, while having fewer reciprocated friendships in dyads. These results challenge the assumption that greater reciprocation in dyads represents the most developed structure of peer friendship relations, and raise questions about the role of peer friendships in student personality development.

HANSELL, Stephen, and Robert E. SLAVIN (Johns Hopkins). "Cooperative learning and the structure of interracial friendships." *Sociology of Education* 54 (April):98-106. 1981.

Several recent studies have shown that when black and white students work together in cooperative learning teams, they make more cross-race friendships than students in traditional classrooms. This study investigated the structure of new cross-race friendships caused by a cooperative learning intervention. The sample was 402 seventh and eighth grade students in 12 inner-city language arts classrooms. Classes were randomly assigned to cooperative team learning or control classes for a ten-week program. Results indicated that new cross-race friendships tended to be reciprocated rather than unreciprocated and that new cross-race friends were among the first six chosen on sociometric questionnaires rather than more distant choices. Further analysis showed that the treatment increased cross-race friendships equally for students of different sexes, races, and achievement levels. These results have implications for improving intergroup relations between naturally existing racial groups outside of the classroom.

HIGLEY, John (Australian National) and Gwen MOORE (SUNY - Albany). "Elite integration in the United States and Australia." *American Political Science Review* 75 (Sept):581-92. 1981.

Taking its point of departure in the elitist paradigm and the much-discussed relationship between elite integration and stable democratic political systems, this article offers a typology of fragmented and integrated national elites and investigates the structure of the "consensually integrated" elite type. It is hypothesized that "consensually integrated" elites have largely similar structures consisting of personal interaction networks which are more inclusive and less class-based, and which contain more extensive and centralized connections among all major elite groups, than the plural elite, power elite or ruling class models of elite structure separately depict. Support for these hypotheses is found in a comparison of the network structures of two consensually integrated national elites, the American and Australian, as these structures are revealed by issue-based sociometric data taken from closely comparable elite samples and studies in the two countries.

HUGHES, Michael (Virginia Polytechnic) and Walter R. GOVE (Vanderbilt). "Living alone, social integration, and mental health." American Journal of Sociology 87(1). 1981.

This study is an examination of the effects of living alone on mental health, mental well-being, and maladaptive behaviors. The findings may be summarized in three basic points. First, there is no evidence that persons who live alone are selected into that living arrangement because of pre-existing psychological problems, noxious personality characteristics, or incompetent socioeconomic behavior. Second, contrary to what would be predicted by structural functionalism or symbolic interactionism, the data analysis in this study shows that unmarried persons who live alone are in no worse, and on some indicators are in better, mental health than unmarried persons who live with others. Furthermore, divorced and never-married persons who live alone have more in common with married persons, in terms of their mental health characteristics, than do such persons who live with others. Third, unmarried persons who live alone show a slight tendency to be more likely to engage in maladaptive behaviors such as drug and alcohol use than are unmarried persons who live with others. These findings have implications for our thinking about the effects of social integration on mental health; the results raise the possibility that socially integrated relationships which provide not only (1) direct social rewards through reinforcement and increased meaning in life but also (2) regulation of behavior through mechanisms of social constraint, obligation, and responsibility, may entail not only rewards but also costs. For persons who live in socially integrated relationships, if the decrements to mental health produced by social regulation are not balanced by social rewards through some as yet unknown process, such social integration may help create psychological distress.

ISZAVICH, Abraham (Universidad Iberoamericana). "Corporate household and ecocentric kinship group in Catalonia." Ethnology 20(4). 1981.

Standard Catalan kinship is a bilateral system with Eskimo type terminology, without distinction between paternal and maternal lines. It corresponds roughly to the Romance system and differs from English only in exhibiting cousin gender contrast. This paper deals with kinship system modifications from standard Catalan usage reflecting a social organization based on the corporate household and the residential kinship group. Materials presented are based on fieldwork in a Catalan village, Barbara, Tarragona, Spain.

JASSO, Guillermina (Michigan). "Social consequences of the sense of distributive justice: small-group applications." In K. Cook and D. Messick (eds.), Theories of Equity: Psychological and Sociological Perspectives. Forthcoming.

This paper investigates the consequences for small-group phenomena of the theory of distributive justice proposed in Jasso (1980, 1981). According to that work, the character of social groups is fundamentally determined by the distribution of magnitudes of the sense of justice or injustice experienced by their members. The most basic representation of a social group--the elementary structure of a group--is provided by the distribution of justice magnitudes. How long a group lives; the proportion of daily time that individuals spend within a given group; the degree of "social distance" within each pair of members; the existence of factions or sub-groups, the degree of cohesiveness within them, and the level of conflict between them--all these group characteristics are the product of the particular combination of the experiences of distributive justice among the members of a group.

The theory of distributive justice thus provides a new approach to modelling the network of relations among group members--an approach that leads not only to a representation of the structure of relations but also to specification of both the determinants and the consequences of variation in social structure. All groups--including adolescent cliques, marital dyads, and work groups--can be analyzed within the justice framework, as can all collections of groups, such as nation-states and complex organizations.

KATZ, Alfred H. (UCLA). "Self-help and mutual aid: an emerging social movement?" Annual Review of Sociology 7:129-55. 1981.

This paper reviews the social science literature that has appeared in the past two decades on self-help and mutual aid groups. It starts with a brief description of the nature, scope, and magnitude of current self-help manifestations, and a sketch of scholarly work concerning them. Indigenous and largely spontaneous groups organized on the self-help/mutual aid pattern constitute an important variety of informal, voluntary associations in modern societies; they have received little systematic study by social scientists.

KEMPER, Theodore D. (St. John's). "Social constructionist and positivist approaches to the sociology of emotions." *American Journal of Sociology* 87(2):336-62. 1981.

Social constructionist and positivist approaches to the sociology of emotions differ in three respects: (1) social constructionists generally reject the importance of the biological and physiological substrate in the determination of specific emotions, while positivists affirm the opposite view; (2) social constructionists suppose that emotions are largely determined by social norms for emotion, or "feeling rules," while positivists assert that social structure, particularly the outcomes of actors' power and status relations, determines emotions; and (3) social constructionists, following a symbolic interactionist model, propose that actors must define situations before emotions will be experienced—but they do not explain how this is done, or what categories actors use to help them define situations; positivists on the other hand offer a specific social structural category scheme for defining situations and determining the emotions those definitions produce. These issues are discussed and suggestions for reconciling the two views are proposed.

KOENIG, Thomas (Northeastern), and Robert GOGEL (Arizona State). "Interlocking corporate directorships as a social network." *American Journal of Economics and Sociology* 40(1). 1981.

Outside directors are now a majority on the boards of the 'Fortune 500' corporations creating a network of interconnections through interlocking directorates. Details of this phenomenon and explanations for its significance can be found in an earlier article in this *Journal*. This network can be visualized as a system through which common norms, values, and a sense of "we-ness" can flow. This sense of being part of a corporate establishment would have significant effects on corporate conduct. From what top corporate leaders say and do, the validity and implications of this hypothesis are examined. This class hegemony theory views power as shared within a system of social relationships, in contrast to the management control theory which considers management as in total control.

KORPI, Walter, and Michael SHALVE. "Strikes, industrial relations and class conflict in capitalist societies." *British Journal of Sociology* 30(2):164-81. 1979.

Industrial conflict is a dramatic expression of the relationship between capital and labour, two of the most important parties to conflict in western societies. Theoretical attempts to explain the long-term development of these societies have devoted considerable attention to industrial strife. Thinking on industrial conflict has thus become embedded in reflections about the nature of class relationships, societal institutions and politics in capitalist industrial society. Although at least some degree of conflict is generally considered inevitable, theories differ widely about the significance of such conflict and its relationship to class structure and politics. This paper will begin by examining the mainstream 'pluralistic industrialism' body of thought, which assigns a key role to institutional developments in accounting for an alleged long-run decline in industrial conflict in the West. We shall critically assess the relevance of this perspective for explaining actual long-run strike trends in the advanced capitalist nations, with particular emphasis on developments in one country, Sweden. An alternative theoretical approach emphasizing class, power, and politics will then be outlined and its usefulness for interpreting observed changes in the level of industrial conflict in the western countries will be discussed.

KORTE, C. "Urban-nonurban differences in social behavior and social psychological models of urban impact." *Journal of Social Issues* 36(2):29-51. 1980.

The author examines urban-nonurban differences in several aspects of social behavior and finds that urbanites are different in limited ways from their less urban counterparts. It is found that in urban areas there is less social contact between neighbors and less helpfulness and consideration shown strangers, while social contacts between friends and relatives are no different from what is found in smaller-size communities. "A case is made in the paper that the city's influence on social behavior seems mediated by situational forces rather than by alterations of individual personalities. The paper concludes with an account of recent research on urban social behavior in Turkey. This study found urban-nonurban differences on a number of measures, as well as differences within Turkish cities between an urban sample and a sample of squatter settlement residents, who resembled the town dwellers in their social behavior." The author argues for the use of an integrated model in research on urban social behavior, a model combining environmental factors with social factors.

LAZIN, Fred (Ben Gurion and UCLA). "The effects of administrative linkages on implementation: welfare policy in Israel." *Policy Sciences* 12:193-214. 1980.

This article focuses on the interaction between local-national relations and the implementation of welfare policy in Israel. It studies the administrative linkages between different levels of governmental jurisdictions involved in the implementing of certain policies of the Ministry of Welfare. It seeks to understand their impact on the original goals and programs of the national government and on actual services provided at the municipal level. These linkages include the arrangements for provision, funding, employment, regulations, and inspection. Without denying the importance of other explanations, the article emphasizes the significance of administrative linkages for understanding welfare policy and practices. In effect, the present study evaluates the extent to which the administrative linkages enable the national government to implement its policies on the one hand, and local authorities to influence national policies and programs on the other.

The findings and analysis of administrative linkages suggest four conclusions. First contrary to Government policy the welfare system involving the Ministry, local municipalities, and their agencies, is very inegalitarian; services are neither uniform nor adjusted to need. Second, the administrative linkages maximize local output and undermine the ability of the Ministry to implement its policies. Third, it is questionable whether the Israeli government can use its present Welfare Ministry to cope with major aspects of the problem. Fourth, it appears that the operations of the Israeli Welfare Ministry system are more similar to the federal than unitary model.

LEIFER, Eric M. (Harvard). "Competing models of political mobilization: the role of ethnic ties." *American Journal of Sociology* 87(1). 1981.

Two models of political mobilization are examined. The developmental model stresses class-based dynamics and does not take the group formation behind mobilization to be problematic. The reactive ethnicity model concurs with the developmental model on the importance of class-based dynamics but contends that ethnic ties serve as facilitating conditions for mobilization in a cultural division of labor. A crucial test, one that differs from past efforts, is formulated and applied to British historical data. The test avoids the problem of overlapping class and ethnic interests in a cultural division of labor by treating ethnic ties as facilitating conditions, and not as interests. The resulting contextual formulation allows an unambiguous use of aggregate data and renders the problem of selecting an "outlet" (party) for ethnic interests irrelevant. Results show ethnic ties to be important, but their conjunction with economic disadvantage was not sufficient to trigger concerted political mobilization. A missing necessary component is hypothesized--a leadership component--that would allow more accurate prediction of the strength and direction of the means adopted to resist collective oppression (voting in national elections being one such means).

LIN, Nan (SUNY - Albany), Walter M. ENSEL (Albany Medical College), and John C. VAUGHN (National League for Nursing). "Social resources and strength of ties: structural factors in occupational status attainment." *American Sociological Review* 46 (Aug):393-405. 1981.

For a class of social actions such as seeking a job, the socioeconomic standings of the contact (social resources) an individual uses will probably be very important in achieving a desired result. Drawing upon data from a sample of working males aged 21-64 in the metropolitan area of Albany-Troy-Schenectady, New York, we found that the job seeker's personal resources (initially his family background, but more importantly later his educational and occupational achievements) as well as his use of weak ties affect his ability to reach a contact of high status. The contact's status, in turn, has a strong and direct effect on the prestige of the attained job. As job experience increases, a person relies more on constructed rather than ascribed relations and the strong tie between his contact and the hiring firm becomes increasingly important.

LITTLEWOOD, Paul (Glasgow). "Patrons or bisghots? : paternalism, patronage and clientelist welfare in southern Italy." *Sociologia Ruralis* 21(1).

Rural sociologists--when compared to political scientists concerned with centre-periphery relations, and social anthropologists analysing interpersonal relations in rural areas--have made little use of such concepts as patronage, clientelism, and the patron-client relationship; yet in recent years there has been increasing use within this branch of the discipline of the closely related concept of paternalism. My aim in this paper is to demonstrate that all these concepts can be used together to provide a viable framework for explaining changes in class relations and political behaviour, in particular where simple commodity production prevails within the capitalist mode of production in a multiparty state. My arguments are illustrated with reference to southern Italy; divergent historical conditions may necessitate qualifying the basic thesis if it is to be applied to other areas.

MackINNON, R. D., and P. ROGERSON (SUNY - Buffalo). "Vacancy chains, information filters, and interregional migration." *Environment and Planning A* 12:649-58. 1980.

An interregional migration model based on vacancy chains, on an intervening-opportunities interaction hypothesis, and incorporating endogenously generated imperfect information flows is developed. Analytical results are determined for the case of perfect information. Numerical experiments are undertaken for the case of imperfect information. Cyclical behavior in the state variables occurs around the perfect-information equilibrium. Suggestions for extending the modeling framework are identified.

McCONAGHY, Maureen J. (Maryland). "The common role structure: improved blockmodeling methods applied to two communities' elites." *Sociological Methods and Research* 9(3):267-85. 1981.

The claim by Breiger and Pattison (1978) that the joint homomorphic deduction indicates the role structure common to two populations is shown to be incorrect. The actual common role structure is defined and then calculated for the elites of two communities. A new measure of the similarity of two role structures is also provided. The results show that, in contradiction to Breiger and Pattison's claims, the two community elite role structures do not share relative strength of ties and are, in fact, very different from one another.

McDONALD, Gerald W. (Florida State). "Structural exchange and marital interaction." *Journal of Marriage and the Family* (Nov.) 1981.

This paper explores the potential contributions of social exchange theory in investigations of stable marital interaction patterns. It is argued that social exchange has been most effectively utilized in the marriage and family literature to explain mate-selection and relationship formation or dissolution processes while having contributed less to the study of stable marital relationships. An explanation posited is that the structural, cognitive, and temporal dimensions of social relationships have been de-emphasized in sociological exchange theory. This has resulted in problematic application to the study of marital relationships which evidence structural and normative constraints, internalized role expectations and obligations, and unequal distribution of resources resulting in asymmetrical exchange. This paper explores the possibilities of a structural exchange theory of change. This paper explores the possibilities of a structural exchange theory of marital interaction by discussing the importance of considering structural and temporal dimensions involved in marital exchange and the need to examine the influence of the social structure on the cognitive orientations of the marital partners and the subsequent exchange relationship. Finally, the paper examines how trust and commitment in marriage affect marital exchange processes and incorporates these concepts into this theoretical approach.

McPHERSON, J. Miller, and Lynn SMITH-LOUIN (South Carolina). "Women and weak ties: differences by sex in the size of voluntary organizations." *American Journal of Sociology* 87(4):883-904. 1982.

This paper explores some network consequences of dramatic differences between men and women in the typical size of the voluntary organizations they belong to. These size differences are greatest in organizations that are most economically oriented. Furthermore, the differences are remarkably consistent across social categories; men tend to belong to larger organizations when compared with women in similar categories, whether of work status, age, education, or marital status. Men are located in core organizations which are large and related to economic institutions, while women are located in peripheral organizations which are smaller and more focused on domestic or community affairs. Even though men and women have almost exactly the same number of memberships on the average, the dramatic differences in the sizes and types of their organizations expose men to many more potential contacts and other resources than women.

MAGUIRE, R. K., A. J. SCOTT, and K. M. WILLSON (Toronto). "The structure and dynamics of intra-urban labour markets: a diagnostic bibliography." *University of Toronto/York University Joint Program in Transportation, Research Report No. 76*. 1981.

This bibliography attempts to bring together a composite set of references relevant to the geography of intra-urban labour markets. The literature on this topic is extraordinarily scattered and unfocussed. Consequently, this bibliography is advisedly diagnostic, and there is no pretension here to completeness. Rather, our aim has been to assemble a reasonably indicative working document as the basis for further investigations into a domain of enquiring that has recently been emerging from a long period of academic neglect. The bibliography is arranged into three main sections. First, we provide a very brief sketch of the overall problem of intra-urban labour markets. Second, there follows a composite bibliography arranged strictly in alphabetical order by author. Third, we then provide a classified index to the references.

MARSHALL, Victor W. (Toronto and McMaster). "Social characteristics of future aged." Paper addressed to the conference, *Housing for an Aging Population: Alternatives*, University of Toronto, 7-8 Nov. 1980.

The implications of differentiation of the aged by health, gender, class and cohort, either independently or interactively, as in the case of the family relations of older people, lead me to give greater credence to the "worst-case" scenario of Sheppard and Rix than to the "best-case" scenario of Neugarten. Age is not irrelevant and is not likely to become so, unless we eradicate declines in health in the later years. That more people maintain high levels of well-being into their seventies is certainly true, but this only postpones what is virtually an inevitability--that many, many very old people will be frail to the point of needing assistance from others. It may be said that age is irrelevant compared to class; and this is almost true. That is, it probably doesn't matter how old you are so much as how economically secure you are. But class differences have a great impact in later life because those who are not favoured through their early lives in their class position lose even more in the later years. Those who have something to lose are likely to lose it, or part of it, and those who have least to lose only have their dependency on the state apparatus continued and intensified.

MARSHALL, Victor W. (Toronto and McMaster). "The changing family relationships of older people." Program for Quantitative Studies in Economics and Population, Faculty of Social Sciences, McMaster University, Research Report No. 5. 1981.

I will begin by describing the aging of the Canadian population and the ways in which family life has changed greatly over the years because of broad-scale population changes. I will try to introduce a historical perspective to convince you that we will make a lot of errors in thinking about the family if we fail to recognize that the situation is changing very rapidly. I will finally describe some of the family relations, and the meaning of the family today, especially as applied to older people.

MARSHALL, Victor W. (Toronto), Carolyn J. ROSENTHAL, and Jane SYNGE (McMaster). "The family as a health service organization for the elderly." Paper presented at the Annual Meeting of Society for the Study of Social Problems. Toronto, Aug. 1981.

The family is, and probably has to be, a major provider of health care to its members, perhaps especially if they are children or very old (Rakowski and Hickey, 1980:290; Shanas, 1981; Shanas and Maddox, 1976:610; Treas, 1977). This fact, as Pratt (1976:2) has observed, has been neglected or obscured by the emphasis in the sociology of the family on the loss of functions which has been held to accompany the move to the nuclear family, and by an emphasis in medical sociology on the professional health care system. Important demographic changes in the past century have altered both the structure of the family and the organization of behaviour within it. While ideal patterns of family life might remain quite stable, and while families have always played a significant part in ensuring the health of their members, the requirements for such familial support assume new dimensions as more people live to be old or very old. Accompanying increased longevity is the growing likelihood that a family will have one or more members who require some form of assistance for health reasons, either in crisis situations or for protracted periods of time.

In addition to the intermediary function in which adult children increasingly intercede between the formal health care system and their elderly parents (Sussman, 1977), three aspects of more direct familial health-care may be distinguished: health monitoring, acute care, and long-term care. This paper describes these three direct aspects of health care in an intergenerational context, drawing on data from middle-aged and older respondents and their adult children. The paper is therefore highly restricted in scope, with very little to say about the health-care functions served by spouses, siblings, or other family members. However, within this narrow range of interest, we are able to draw on data from both parents and children, going beyond the more common use of reports from only one generation.

MIDDLETON, Alan. "Petty manufacturing, capitalist enterprises and the process of accumulation in Ecuador." *Development and Change* 12:505-24. 1981.

An important aspect of the debates about the 'informal sector,' the 'marginal masses' and 'petty commodity production' in the urban areas of the underdeveloped world has been the extent to which the activities of the people in these categories constitute an autonomous economic subsystem, or are integrated into the dominant capitalist mode of production. This debate has been taking place on five interrelated levels of analysis. Different authors have been concerned with sector-sector relations, enterprise-sector relations, enterprise-enterprise relations, labour force-sector relations, and the relationships involved in market competition.

MILLER, Jon (Southern California), James R. LINCOLN (Indiana), and Jon OLSON (Akron). "Rationality and equity in professional networks: gender and race as factors in the stratification of interorganizational systems." American Journal of Sociology 87(2):308-35. 1981.

The organizational principles of rationality and equity account for the bureaucratic leveling effect on social differences posited by Weber. An inference from this framework, that organizational systems will neither create nor reinforce inequality based on gender or race, was examined with data provided by the members of six multiagency social service delivery systems. The dependent variable was a measure of access to the networks of interorganizational exchange that tied together the agencies in these systems. This measure, called centrality, did not vary by race or gender. However, an analysis of first- and second-order interaction effects indicated that the combinations of investments and contributions that were predictive of centrality were very different for white men, white women, nonwhite men, and nonwhite women. A complicated process of negotiation for resources and advantages was indicated that is not easily reconciled with deductions from classical organizational theory.

MINTZ, Beth (Vermont) and Michael SCHWARTZ (SUNY-Stony Brook). "Interlocking directorates and interest group formation." American Sociological Review 46 (Dec):851-69. 1981.

This paper uses data on interlocking directorates to test three theories of corporate organization: managerialism, coalition theory, and the theory of finance capital. Findings suggest that the modern corporation is not an autonomous unit as suggested by managerialism, that firms do not form flexible alliances which pursue mutual interests as implied by coalition theory, and that the interest groups of traditional finance capital theory do not characterize the interlock network of the 1960s. Instead, the system is dominated by a handful of interconnected major New York commercial banks and insurance companies which form the center of an integrated national network.

MITCHELL, Roger E., and Edison J. TRICKETT (Maryland). "Task force report: social networks as mediators of social support: an analysis of the effects and determinants of social networks." Community Mental Health Journal 16(1):27-44. 1980.

The intent of this paper is to present a representative, though not exhaustive, overview of the current literature on social networks, with an emphasis on research linking social networks to psychological adaptation. This overview includes a review of social network concepts; and analysis of the multiple determinants of social networks; an analysis of the varied effects of social networks; and the implications for policies and practices of community mental health centers. This paper adopts the view that the concept of social network is a useful tool in examining both the functional and the dysfunctional influences of one's primary group on individual adaptation.

MOORE, Gwen, and Richard D. ALBA (SUNY-Albany). "Class and prestige origins in the American elite/" In P. V. Marsden and N. Lin (eds.) Social Structure and Network Analysis (Beverly Hills: Sage), forthcoming.

In this paper we examine the relationship of class and status origins to elite positions, using a unique sample of interviews with top position holders in powerful public and private sector organizations in 1971-72. We address the following major questions: (1) What is the representation of individuals from different class and status groups in the American elite? (2) To what extent are there differences along these lines within the elite in such matters as routes of entry into it or current standing in it? (3) Are there marked tendencies for interaction within the elite to take place along class or status lines?

MOORE, Gwen (SUNY - Albany), John HIGLEY, Desley DEACON, and David CARRICK (ANU - Canberra). Australian and New Zealand Journal of Sociology 16(1), No date or title.

Both the USA and Australia have one large cohesive elite group which represents all major sectors, institutions, and issue areas. There are numerous smaller, specialized groups, with the larger group integrating these. Within the overall group, cliques, social circles, and core clusters could be identified from the networks, when looked at geographically and by sector (paraphrased from summary in New Society, 25 June 1981).

MORRIS, Aldon (Michigan). "Black southern student sit-in movement: an analysis of internal organization." *American Sociological Review* 46(Dec):744-67. 1981.

This paper argues that the Southern sit-in movement of 1950, though it appears to have developed in the spontaneous manner described by classic collective behavior theory, actually grew out of pre-existing institutions and organizational forms. The spread of the sit-ins followed the networks of these pre-existing institutional relationships. Factors internal to the black community--churches, colleges, protest organizations, and leaders--were responsible for nurturing and developing the movement. The analysis is based on primary data collected from archives and interviews with civil rights leaders.

MULLINS, Patrick (Queensland). "Theoretical perspectives on Australian urbanisation: 1. Material components in the reproduction of Australian labour power." *Australian and New Zealand Journal of Sociology* 17(1). 1981.

This paper and its companion (Mullins, 1981) explore a number of theoretical questions concerning Australian urbanisation and the process of reproducing Australian labour power. They attempt not only to express urban processes shared by all capitalist countries but, more importantly, they try to elucidate features unique to Australian urbanisation. It must be stressed that these two papers provide only an introductory analysis, raising a number of theoretical questions and posing a series of hypotheses suitable for empirical testing. It is hoped that in this way some groundwork will be laid for a more concise theory relating Australian urbanisation, specifically in terms of labour power reproduction, to Australian capitalism.

PEATIE, Lisa and Jose A. ALDRETE-HAAS (Massachusetts Institute of Technology). "'Marginal' settlements in developing countries: research, advocacy of policy, and evolution of programs." *Annual Review of Sociology* 7:157-75. 1981.

In most rapidly growing cities of developing countries, part of the population is living in neither modern apartment buildings nor modern houses but in a sharply contrasting environment: unplanned and often illegal settlements, lacking municipal services, and with houses that at the beginning at least are generally no more than shacks.

In summary, the relations among practice, the policies advocated, and academic research are complex; all three are politically controversial, and positions cross-cut. We begin by sketching the sources and evolution of "ideas in good currency" with regard to policy. We then discuss the various research frameworks. Finally, we note the regional differences in research and relate these to the sociological role of ideas about marginal settlements.

PICKVANCE, C. G. "Theories of the state and theories of urban crisis." Pp. 31-54 in S. G. McNall and G. N. Howe (eds.), *Current Perspectives in Social Theory: A Review Annual*, Vol. 1. Greenwich, CT: Jai Press. 1980.

The author's aim is first, to examine the relation between economic crisis and urban fiscal crisis, and, second, to "identify some issues in the Marxist theory of the state which are crucial to an understanding of urban crises (or their absence)." He argues that an understanding of urban crisis depends on theories of three objects: a theory of economic and political crisis that defines crisis in a scientific rather than a journalistic manner; a theory of the territorial division of labor; and a theory of the state that would explain the distribution of state functions "vertically between levels of state and horizontally between different ministries, between elected and appointed bodies, in terms of attempts to assist the accumulation process." The rationale for the Study derives from a sense that increasingly new theoretical contributions in the three areas . . . cannot simply be added to existing ones, but that there are very real incompatibilities among them." The author feels that we should confront the very real differences of view that lie within a Marxist theoretical framework.

POPENOE, David (Rutgers). "Urban scale and the quality of community life." Stockholm: *Byggdok* (Hälsingegatan 49). 1981.

An ethnographic comparison of the lives of inhabitants of similar housing environments in two Swedish communities--Stockholm and Gävle (pop. 50K)--provided an opportunity to examine the variation in community qualities by size of urban place. While the overwhelming impression is of life-style and community life similarities between the two locales, suggesting that the effects of size of place are not very significant, there are some slight social advantages which are felt by residents of the smaller community. However, they are counter-balanced by diminished economic advantages.

RAGHAVAN, Vijay V. (Regina) and C. T. YU (Illinois). "A comparison of the stability characteristics of some graph theoretic clustering methods." IEEE Transactions on Pattern Analysis and Machine Intelligence 3(4). 1981.

Assessing the stability of a clustering method involves the measurement of the extent to which the generated clusters are affected by perturbations in the input data. A measure which specifies the disturbance in a set of clusters as the minimum number of operations required to restore the set of modified clusters to the original ones is adopted. A number of well-known graph theoretic clustering methods are compared in terms of their stability as determined by this measure.

Specifically, it is shown that among the clustering methods in any of several families of graph theoretic methods, clusters defined as the connected components are the most stable and the clusters specified as the maximal complete subgraphs are the least stable. Furthermore, as one proceeds from the method producing the most narrow clusters (maximal complete subgraphs) to those producing relatively broader clusters, the clustering process is shown to remain at least as stable as any method in the previous stages. Finally, the lower and the upper bounds for the measure of stability, when clusters are defined as the connected components, are derived.

ROSENTHAL, Carolyn J., Victor W. MARSHALL (McMaster and Toronto) and Jane SYNGE (McMaster). "The head of the family: authority and responsibility in the lineage." Paper presented at 10th Annual Meeting, Canadian Association of Gerontology in conjunction with 34th Annual Meeting of The Gerontological Society of America. Toronto, Nov. 1981.

In this paper we have demonstrated that headship exists as a social fact within a majority of contemporary families. We have described a number of responsibilities and activities which make up the work done by heads of families. Occupancy of the position of family head has been shown to be systematically patterned in socially meaningful ways by sex and age, and by kinship position within the lineage. Finally, we have shown that headship passes from generation to generation, despite an apparent reluctance to give up the authority which headship entails.

These findings point to an important dynamic of both the individual and the family life course. Our data would suggest that traditional male-dominated authority patterns continue to characterize much of family life. In the long run, and typically, headship and its succession from generation to generation passes from male to male. Women are bystanders in this process, for the most part.

ROSENTHAL, Carolyn J., Victor W. MARSHALL, and Jane SYNGE. "The succession of lineage roles as families age." Essence 4(3):179-93. 1980.

As people grow older within families, they assume, exercise and relinquish roles with respect to the intergenerational family or lineage. Some of these roles are the kinkeeper, the comforter, the financial advisor, the occupational sponsor, the ambassador, and the ceremonial leader. These roles represent family "headship". The succession of such roles from generation to generation is patterned in relation to the family life course, to changes in health and dependency status of the various generations in the lineage, and to factors such as family size, birth order, and sex. This paper proposes a conceptual framework for an analysis of aging and the family in the above terms, a framework which builds upon but goes well beyond conventional functional analyses of the family life of older people. The utility of the framework is illustrated with data from the Generational Relations and Succession Project at McMaster University.

SCHMID, Michael (Augsburg). "Struktur und Selektion: Emile Durkheim und Max Weber as Theoretiker struktureller Selektion." Zeitschrift für Soziologie 10(1):17-37. 1981.

Die Arbeit argumentiert zugunsten einer nicht-reduzierbaren Version struktureller Erklärung sozialen Wandels. Dies geschieht in Form eines Modells, das die Dynamik sozialer Veränderungen wie des strukturellen Bestandes sozialer Formationen als einen Selektionsprozess struktureller Variationen interpretiert. Strukturelle Selektionsmechanismen stehen im Zentrum des Modells. In Rückgriff auf Erklärungsargumente von Durkheim und Weber kann gezeigt werden, dass empirisch triftige Interpretationen des abstrakten Modells möglich sind.

SCHWARTZ, Michael (SUNY - Stony Brook), Naomi ROSENTHAL, and Laura SCHWARTZ (SUNY - Old Westbury). "Leader-member conflict in protest organizations: the case of the southern farmers' alliance." Social Problems 29(1). 1981.

We examine the conflict between leaders and members in protest organizations and challenge Robert Michels' argument that both oligarchy and goal displacement are inevitable in such settings. An examination of protest organizations shows there is often conflict between the interests of membership, the needs of leadership, and the requirements for organizational permanence. Our study of the Southern Farmers' Alliance shows that the leadership's pursuit of its own interests contributed to both the rejection of a potentially successful reform program and the demise of the organization itself.

SIU-KAI, Lau (Chinese University of Hong Kong). "Chinese familism in an urban-industrial setting: the case of Hong Kong." Journal of Marriage and the Family (Nov.) 1981.

In the urban-industrial setting of Hong Kong, Chinese familism has taken the form of utilitarianistic familism. This new type of Chinese familism is characterized by: primacy of familial interests, perception of the social-political context as the arena for the pursuit of familial interests, utilitarianistic considerations in the structuring of intrafamilial relationships, the nonsignificance of the social status of the familial group, utilitarianistic recruitment of familial members and the resultant vagueness of the boundary of the familial group, and the dilution of authority relationships between familial members. To account for the emergence of utilitarianistic familism, three structural factors--Chinese immigration, institutional inadequacy, and socioeconomic development--are singled out and their relationship to utilitarianistic familism discussed. Finally, the theoretical relevance of utilitarianistic familism is elaborated by putting it into a comparative perspective.

SLATER, Paul B. (California - Santa Barbara). "Combinatorial procedures for structuring internal migration and other transaction flows." Quantity and Quality 15:179-202. 1981.

Gower (1977) has recently discussed multivariate methods for "the analysis of square non-symmetric matrices D whose rows and columns are classified by the same elements." He indicates that such a data structure is not uncommon, and that it arises in diverse situations. In the social sciences, such matrices are typically termed transaction flow tables. Instances of them are input--output, internal migration, occupational mobility, trip distribution, and journal citation matrices. Gower has focused primarily on the application of multi-dimensional unfolding and canonical analysis of skew symmetry to tables of this nature. Though of substantial interest, these methods do not directly yield groupings of the analytical units. In contrast, the present author has developed several procedures for clustering using asymmetric matrices. The most widely applied of them has been a two-stage algorithm, IPFPHC (Slater, 1976a, b).

SMITH, Christopher J. (SUNY-Albany). "Urban structure and the development of natural support systems for service-dependent populations." Professional Geographer 33(4):457-65. 1981.

This paper suggests that the delivery of services to dependent populations can be facilitated by the existing urban structure, particularly the prevailing patterns of homogeneity and heterogeneity. As a complement to formal attempts to improve the delivery of services and alter what often appears to be a spatially and socially unjust urban structure, the paper provides examples of simple interventions that can expand and enhance informal service delivery at the local level.

SMITH, Christopher J. (SUNY-Albany). "Home-based mental health care for the elderly," in A. M. Warnes (ed.) Geographical Perspectives on the Elderly. London, Wiley (pp. 375-98). 1982.

This chapter has briefly described a neighbourhood-based attempt to provide preventive mental health services for the elderly. The need for individual neighbourhoods to develop indigenous support services was highlighted by reviewing some of the inadequacies in the formal and institutional responses to mental illness among the elderly. A loose theoretical framework for building up neighbourhood-based service systems was outlined, but because at the time of writing the project is still in progress, firm conclusions and policy suggestions are impossible. It is worthwhile, however, to reiterate the optimistic philosophy underlying the Neighborhood Exchange project and many similar programmes that have been started in other cities in the United States. Keeping people in their own homes whenever possible, and utilizing informal services provided by neighborhood paraprofessionals, will serve not only to improve the quality and quantity of the services provided; it will

also, in the long run, help to strengthen neighbourhood life. Institutionalization will always be necessary and desirable for some elderly residents, but the Neighborhood Exchange staff hope to create a local awareness that alternatives are available. Preventive mental health requires that informal help is provided long before problems reach a critical level, but the provision of help is only a partial solution. People in need must learn how to ask for help, and a prerequisite for this is the knowledge or the expectation that one's request will be heard. In this sense, a neighbourhood that is defined by objective criteria (e.g., hospital admission rates) as 'pathological' or 'high-risk,' may also be one in which the residents have developed an impressive repertoire of informal helping skills, and a willingness to seek help before it is too late. Active reporting of problems and an equally active set of informal responses may indicate healthy signs in what otherwise appears to be an unhealthy neighbourhood.

SMITH, Gavin (Toronto). "Huasicanchino livelihoods: a study of extended domestic enterprises in rural and urban Peru." *Canadian Review of Sociology and Anthropology* 17(4). 1980.

Detailed studies of how the poor 'make out' in Third World cities have only recently emerged. Casual work must be seen within the context of the worker's relationship to large-scale capitalism. It must also be understood in terms of the relationships which exist among such labourers themselves. This paper presents material on the nature of these latter kinds of linkages both within the city and between city and country. It is suggested that the character of linkages between domestic enterprises in the group studied have much to do with the volatile nature of the Peruvian economy. The concept of *confederations of households* is proposed for the description of the kind of interrelationships which occur.

SNIDER, Earle L. (Alberta). "The role of kin in meeting health care needs of the elderly." *Canadian Journal of Sociology* 6(3). 1981.

A considerable literature underlines the positive contributions of family in meeting various needs of the elderly. Probability survey research findings from a western Canadian city indicate that, consistent with previous literature, family involvement was more likely to occur in emergency than non-emergency health situations. However, in both morbidity contexts, number of kin available was found to be secondary to demographic variables as factors most related to health-seeking behaviors among the elderly. Implications of these patterns of family involvement are discussed.

STEINBERGER, Peter J. (Reed College). "Political participation and communality: a structural/interpersonal approach." *Rural Sociology* 46(1):7-19. 1981.

This study examines the influence of certain measures of communality on levels of participation in local politics. Communality is here operationalized not in aggregate terms but, rather, in terms of individual experiences and orientations. These are classified as being more or less "communal"; thus, our findings can be compared to previous findings on the question of community and participation. The data, based on original survey research, tends to confirm the conclusions of several related studies. Individuals whose experiences are here defined as communal are generally more active in, and more knowledgeable about, local political matters than are non-communal types. Moreover, this finding tends to hold true when social status is controlled. The result bears not only on the study of political participation, but also on more general issues of democratic theory and social philosophy.

SURACE, Samuel J., and Melvin SEEMAN (California - Los Angeles). "The experience of migration: settlement and adjustment in Milan." *Sociological Inquiry* 51(3):83-97.

We examine two perspectives on the management of migration, involving the distinction between settlement and adjustment. The latter refers to urban migration that involves significant personal maladjustment, while settlement emphasizes the importance of social networks and coping strategies in moderating the consequences of migration. Using a sample representing both rural and urban origins and differential length of residence in Milan, it is shown that (contrary to assumptions involved in the "maladjustment" perspective) neither prior urban experience nor length of exposure to urban life is associated with better adjustment. Various coping strategies are explored (e.g., pre-migration and social-network help) as potential contributors to successful settlement. Finally, the "settler" (in contrast to the "maladjuster") is shown to be more insulated from urban-oriented change in life style and ideology.

SYNGE, Jane (McMaster), Carolyn J. ROSENTHAL (McMaster and Toronto), and Victor W. Marshall (Toronto). "Phoning and writing as means of keeping in touch in the family of later life." Paper presented at the 10th Annual Meeting of the Canadian Association on Gerontology in conjunction with the 34th Annual Meeting of the Gerontological Society of America, Toronto, Nov. 1981.

This paper reports on a Hamilton, Ontario, project that explores relationships between the generations. It has been well established in western countries that relationships between parents and children often continue to be close in later life and that children are important sources of practical and emotional support to the elderly. The Generational Relations and Succession Project is co-directed by Victor W. Marshall, Carolyn J. Rosenthal and myself. We interviewed people aged 40 and older. We drew a sample of the Hamilton/Stoney Creek population. Respondents were drawn in equal numbers from three age groups: 40-54, 55-69, and 70 and over. Within each age group, equal numbers of men and women were chosen. The data presented below are from the 464 interviews and from additional questionnaires completed by 405 of these respondents.

In this paper we argue that the telephone plays a very important part, and letters a less important part, in addition to direct personal interaction, in maintaining relations between the generations. We begin by describing the residential propinquity of adult children to a random sample of persons, and the structuring of direct intergenerational interaction by geography, age, and gender. We then consider letter-writing as a means of communication, in relation to the same variables; following which we present evidence for extensive telephone contact. We suggest a number of factors in addition to age, sex, and proximity that influence patterns of telephone contact between older people and their children.

TAMIR, Lois M. (Texas-Dallas) and Toni C. ANTONUCCI (Michigan). "Self-perception, motivation, and social support through the family life course." *Journal of Marriage and the Family* (Feb.) 1981.

National survey data collected in 1976 were utilized to measure differences in self perception, motivation, and social support through seven stages of the family life cycle, ranging from single unmarried adults to parents of children over 17 years of age. In the area of self-perception, there were no significant interactions between sex and family stage, but significant differences between the family life stages for both men and women were found to exist: In general, parents of young children displayed higher scores, while parents of adolescents displayed significant sex differences: Men became more affiliative, women more achievement oriented. Finally, in the area of social support, parallel national survey data from both 1957 and 1976 revealed significant stage differences and no sex interactions: Adults at the earlier stages of the family cycle used social supports more frequently, but were less satisfied. It was concluded that the family life stage variable provides an important tool for measuring developmental change: In most cases, stages of family life are significantly associated with psychological and social change in adulthood, regardless of sex.

THAKURATA, S. P. (National Institute of Bank Management). "Cultural impact on structural relationships among the executives of two nationalised banks in India." *Man in India* 59(4). 1979.

In this paper an attempt is made to explore how the organisational behavioural patterns of the Senior Executives of two nationalised banks in India have conformity with the traditional institutions.

WALSH, Edward J. (Pennsylvania State). "Resource mobilization and citizen protest in communities around Three-Mile Island." *Social Problems* 29(1). 1981.

The rapid growth and development of social movement organizations around Three Mile Island after the 1979 nuclear accident provide data for assessing and refining theories on social movements. This paper summarizes an intense first year of grass roots mobilization and documents the importance of grievances in precipitating and sustaining protest. The resource mobilization perspective regards discontent as a constant rather than a variable, and ignores cases where suddenly imposed major grievances generate organized protest. Grievances, existing structures and the mobilization process itself should all be treated as variables in the search for more inclusive theory, and three hypotheses involving these variables are included in the final section of this paper.

WEBBER, M. M. "A telecommunications strategy for new cities of the 21st century." Working Paper No. 330. Berkeley: University of California, Institute of Urban and Regional Development. 1980.

"New metropolises in developing countries are reproducing the spatial patterns of old metropolises in developed countries, and that looks like a serious mistake. Both the institutional and the technological contexts for the new ones are different, and so it is necessary to match urban growth in the Third World with contemporary transportation and communications technologies if we are to realize the qualities of livability they now make possible. Communications, transport, and land policies offer major instruments for reshaping urban settlements into nonconcentric, twenty-first century spatial patterns that, in turn, will fit twenty-first century social and economic patterns." The author focuses on the following topics: forces shaping metropolitan spatial structure; sources of modern megapolitan growth; transport strategies; communications strategies; and rationales for dispersion. "The new developments of the Third World," it is noted, "will be shaped by forthcoming technological developments" that will require development policy to look to "prospects for unprecedented levels of connectivity and random accessibility."

WILLIAMS, Peter (Australian National University). "Restructuring urban managerialism: towards a political economy of urban allocation." *Environment and Planning A* 14:95-105. 1982.

This paper is concerned with conceptual frameworks in urban geography. It seeks to re-establish the validity of research at the institutional level albeit set within a broad political economy of urbanism. It also argues the need both to recognise and to explain the high degree of variation which exists within institutions operating in the urban realm.

In recent years, debates around analytic frameworks for urban geographic research have become quite intense with a sequence of apparently new approaches being adopted and then largely discredited. Concerns with central-place theory and rank-size rule were supplanted by the development of a behavioural geography which in turn was overtaken by issues related to socio-spatial conflict and urban managerialism. Most recently, managerialism was swept aside by Marxist urban political economy. Paralleling these developments has been the rise and fall of quantitative methods which found numerous applications and resulted in quite profound shifts in the way research was undertaken. The purpose of this paper is to reflect back upon one phase in this sequence and to attempt to recover elements which, it is argued, still have much relevance in the search for appropriate analytic frameworks. I refer here to the managerialist or institutional approach that derived out of urban sociology and which had only a brief period of ascendancy within urban geography and urban studies. Despite this fact, one lasting impact of that phase of work can be seen in the numerous pieces of research which are empirically focused upon institutional activities and arrangements, even though in general the conceptual framework has moved sharply away from initial managerialist formulations. In this paper, the critique of urban managerialism is considered and reappraised in the light of subsequent developments in urban political economy and organisational analysis. From this process, a number of suggestions are put forward regarding analytic work at the level of urban agencies and institutions.

Selected papers from the SECOND ANNUAL SUNBELT SOCIAL NETWORK CONFERENCE, Tampa, Florida, Feb. 12, 1981.

BERKMAN, Lisa (Yale). "Social networks and physical health: how do we measure the important factors?"

While there has been much descriptive work on social network configuration there is much less material on the impact of social networks on physical health status. I would like to present some work I have been doing on the mortality risks observed among groups of people with varying sorts of social networks and discuss several theoretical and methodological problems encountered during the investigation of this issue. This research is based on a sample of almost 7,000 men and women living in Alameda County, California (surveyed in 1965 and followed up in 1974). Three types of pathways can be outlined: (1) behavioral processes whereby people with certain ties maintain practices which are either beneficial or harmful to their health; (2) psychological processes whereby people respond to circumstances by becoming depressed or changing their coping or appraisal processes; (3) direct physiological changes in both known biological risk factors and unrecognized processes which are directly altered by circumstances of social disconnectedness. The data suggest that the relationship between social networks and disease must be mediated, in part, by these latter processes which do not come under the rubric of traditional risk factors.

BERNARD, H. Russell (Florida), Peter KILLWORTH (Cambridge), and Christopher McCARTY (Florida). "Index: An Informant-Defined Experiment in Social Structure."

This paper describes an informant-defined experiment, designed to answer the questions "whom does any informant know and why?" Each of 50 informants was allowed to ask an unlimited number of questions about each of 50 target persons (all mythical, each with a created life history). When informants felt they had enough information, they told us which of their acquaintances was most likely to know the target person, or, more precisely, could serve as the first step in a chain of acquaintances.

The data show that four basic SES questions (location, occupation, age and sex) account for more than 50% of questions ever asked, and a basic collection of six or seven questions would suffice for most circumstances. Less often used questions tend to be employed only when the basic set produces no useful information for that informant. The (verbal) reasons given for a choice could be succinctly defined using no more than four concepts. Analysis of these reasons shows that the basic pattern of: location is important when the target is near, a big town, and a low occupation rating, and occupation is important when the reverse holds, occurs throughout.

On average, just under one characteristic of the choice matches that target characteristic. Extending this concept to that of a "tag" (a facet of a target's, or choice's, personal history) enables us to predict correctly which choice an informant will make for a given target 60% of the time. However, we do not yet possess a way to predict what types of acquaintance any given informant possesses; this is clearly vital for social structure theories.

BROMET, Evelyn, and Joseph ZUBIN (Pittsburgh). "Exposure to stress, social network characteristics, and mental health: an analysis of the effects of the Three Mile Island accident."

This paper focuses on the relationship of stress and social support to the psychological symptoms of mothers living near the Three Mile Island (TMI) nuclear reactor. The major question addressed is whether aspects of social support from the network moderate the relationship between stress exposure and symptomatology. A total of 311 mothers living within 10 miles of TMI were interviewed in their homes 12 months after the accident. A comparison group of 124 mothers living near another reactor in Pennsylvania was similarly drawn and interviewed. Psychological symptomatology was obtained from the Symptom Checklist-90, a self-administered questionnaire that reflects level of distress during the two weeks preceding the interview on a five point scale. Social support was assessed using a structured interview schedule developed by Mueller and staff of the Psychiatric Epidemiology Program at Western Psychiatric Institute and Clinic. Structural characteristics of a network of up to 15 individuals (i.e., size, accessibility, and stability) and quality of support (general support and support from an inner circle of five closest friends or relatives) were ascertained. A five level scale was developed to summarize exposure to stress in which the group with the highest risk, Group 1, were the TMI mothers living within five miles of the plant who perceived the situation at TMI as currently dangerous (N=86); and the lowest risk group, Group 5, were the comparison site mothers who lived 6-10 miles away from their nuclear reactor and perceived the situation at TMI as not currently dangerous (N=28). Group 2 included the other TMI mothers living within 5 miles of the plant and the TMI mothers in the 6-10 mile radius who viewed TMI as currently dangerous (N=157). A statistically significant relationship was found between the level of exposure to stress and degree of symptomatology. That is, mothers exposed to greater stress were more symptomatic. There were no significant relationships between the three structural characteristics of social support and symptomatology. On the other hand, mothers who perceived more qualitative support from their networks and inner circles reported fewer symptoms. In order to examine whether social support could be viewed as a moderating variable, log linear analyses were carried out. The results of the log linear modeling procedure confirmed the independent relationships observed above and indicated no interaction between the three sets of variables under consideration.

GREENBAUM, Susan (South Florida). "Bridging ties at the neighborhood level: weak or multiplex?"

This paper examines the relevance of the "strength of weak ties" model (Granovetter 1973) in devising community development strategies for urban neighborhoods. The policy implications of the general thesis are outlined in terms of advisability of activities designed to promote neighborhood identification and cohesion in urban areas. Then, Granovetter's specific assumptions about the structure and functioning of neighborhood social networks are assessed in light of existing research. Little support is found for the presumed absence of bridging weak ties among urban neighbors, or for the assumption that strong ties create an obstacle to effective political mobilization in working-class neighborhoods. An alternative model of local-level integration is suggested, which retains Granovetter's concept of dense clusters of network ties linked by "local bridges," but re-examines the role of weak ties in effecting such bridges. My perspective differs in that the suggested clusters of ties most often consist of weak acquaintanceship ties which arise among residents of the same immediate vicinity, e.g., face-blocks or cul de sacs. The bridges between these spatial clusters may be weak ties, but they are also quite likely to be multiplex ties as, for example, among kin or co-workers who live in the same neighborhood. It is suggested that, in this situation, multiplex ties make more effective bridges than do weak ties of acquaintanceship, and that the presence of strong ties among neighbors generally enhances the overall integration of neighborhoods.

GREENBAUM, Susan D. (South Florida). *"The Distribution of Sociometric Choices in an Urban Ethnic Neighborhood: A Comparison of the Patterns of Slavs and Non-Slavs."*

The poster presents preliminary findings from an examination of localized social networks on Strawberry Hill, a midwestern inner-city neighborhood where just under half of the residents are of Croatian or Slovenian descent. Members of these two groups have occupied this area since the early 1900s when "national" Catholic parishes were established by immigrant laborers in nearby packinghouses. The churches are still open and continue to sponsor a variety of social and cultural activities in which neighborhood residents heavily participate. There are also a number of ethnic commercial establishments and social clubs in the neighborhood which, together with the parishes, contribute to a persistent identification of Strawberry Hill as a "Slavic" neighborhood.

The purposes of the research were: 1) to determine the extent to which the Slavic residents' social networks are dense and multi-stranded (consistent with the image of such neighborhoods as "urban villages"); and 2) to examine differences in the localized networks of the Slavic and non-Slavic residents, both in terms of relative density of personal networks and in the degree of interaction across these two segments of the neighborhood's population.

The data were derived from an interview survey with a random sample of 74 adult residents (44 Slavic and 30 non-Slavic) who were asked to identify all their neighborhood acquaintances from an address-based listing of all the 870 separate households residing within the neighborhood. These designations were compiled and each household in the neighborhood was assigned a numerical score based on the number of respondents who selected them as an acquaintance. For each of these 870 households, additional data were obtained concerning 1) owner/renter occupancy; 2) residence for less than one year; 3) residence for more than twenty years; 4) participation in the neighborhood improvement organization; and 5) ethnic identity.

The results thus far tend to confirm the hypothesized high density of Slavic networks on Strawberry Hill, and suggest a rather striking distinction between the density of the local acquaintanceship networks of Slavs and non-Slavs. Subsequent analyses are planned to ascertain the relative effects of homeownership, residential stability, and local-level participation on the acquaintanceship measures. An assessment of cross-ethnic linkages is also planned. Comments or suggestions concerning these, or other possible analyses, are highly welcome.

McCANN, Gilbert (Vermont). *"Material Entailment Analysis of a Scientific Revolution."*

From at least the time of Thomas Kuhn's seminal Structure of Scientific Revolutions the study of revolutions in science has been recognized as an important enterprise by sociologists, although relatively little has been published directly on revolutions. In order to fully understand the development of such revolutions it is further necessary to examine in some detail the structure of the scientific communities in which they take place. Central to the investigation of scientific structure is the pattern of communication ties. A variety of techniques have been used by sociologists of science and by networkers to examine such structure. One persistent problem with these methods is their inability to deal directly with the problems posed by overlapping sets (boundary problem) and by transitive relations (Berkowitz, 1982).

This paper describes a new method, "material entailment analysis," and applies it to the investigation of the changing patterns of communication during a major scientific revolution, the Chemical Revolution of the eighteenth century. The method allows researchers to model concrete situations in which one does not wish to assume either that transitivity is always true or that there is some arbitrary limit to transitivity. The method, which is statistically based, provides a relatively detailed "picture" of the transitivity structure and may be used as a supplement to other techniques, such as clustering, blockmodeling, or multidimensional scaling.

The Chemical Revolution, which established the basis for modern chemistry, is the source of the data, which consist of all person-to-person citations in the periodical literature of Great Britain and France from 1760 through 1795 (McCann, 1978). The results show clear patterns of structure: a hierarchical or "center-periphery" model of science is supported, and the changes over time reflect reasonable patterns as the revolution progressed. The results depict meaningful micro- as well as macro-structure and provide further understanding of the ways in which scientific communities develop and react to radical intellectual change.

SUOMI, Stephen J. (Wisconsin-Madison). "Social network influences on development in Rhesus monkeys: a transactional model."

Rhesus monkeys living in natural habitats or man-made approximations thereof typically reside in large social groups containing 20-100 individuals. Groups consist of multiple adult males and females (who mate promiscuously) and their offspring. Females born into the group usually stay in the group their entire lives, while males born into the group usually migrate out shortly after puberty.

Both male and female infants born into rhesus monkey troops are exposed to complex social networks as they grow up. They typically establish social relationships with most or all members of their social groups, and to a large extent their social development is dependent on the nature of these various social relationships.

Rhesus monkey infants clearly establish very different types of social relationships with various age-sex-kin subgroups within their troops. Each type of social relationship provides a different sort of influence on the infant's social development.

Because different types of social relationships provide different developmental influences, the composition of an infant's social network can be a crucial determinant of its pattern of social development. For example, a young monkey growing up in a social network containing many age-mate peers will almost certainly acquire far more extensive play experience than infants growing up in social networks devoid of age-mates, and such differences in play experience can have profound consequences later in life.

The specific demographic characteristics of any given rhesus monkey social network do not necessarily influence each infant's social development in exactly the same fashion. Instead, such influences are dependent on the infant's sex and the social status of its mother. For example, the presence of an older male sibling represents a more powerful influence on a male infant than it does for a female infant, especially as the infant grows older. Similarly, the presence of same-sex age-mates is far more important, in terms of long-term developmental consequences, for offspring of high-ranking mothers in the group than it is for offspring of low-ranking mothers.

Finally, the nature and extent of social network influences on social development for any one infant appear to be dependent on certain temperament characteristics of that infant, especially with respect to inherent fearfulness, timidity, and/or anxiety. Temperament predispositions can affect how infants react to various aspects of their social network, and in turn, their own reactions can subsequently have differential effects on the network itself. Such phenomena are perhaps best described by transactional models of social development. Examples of cases in which high vs low-anxious infants are reared by high vs low-ranking mothers will be presented, and implications of these models for considerations of human mental health development will be discussed.

WOLFE, Alvin W. (South Florida). "Improving communication among network theorists and practitioners."

This paper aims at: (1) clarifying the nature of the communication problems among network theoreticians and practitioners in a wide variety of fields; and (2) suggesting a few steps toward bridging the gaps. All persons, theoreticians and practitioners, can be placed somewhere on a two-dimensional plane: one dimension represents the degree to which a person is oriented toward theory or practice; the other dimension represents the graduated differences in the formality or informality of their ideas about networks.

Review of the "applied" literature reveals that many practitioners who would like to use network models in their work are discouraged from using the most appropriate models because of their own lack of mathematical sophistication. Practitioners need network models that permit precise statements about (1) centrality, in its several types (betweenness, closeness, absolute, relative, point, graph); (2) clustering, in its several types (cohesion, structural equivalence, role equivalence); and (3) flow of resources through arcs of specified capacity. This paper points out the theoretical and methodological advances toward such useful models and urges practitioners to set aside their doubts and try to work with these advanced concepts. Finally, five suggestions are proffered for improving the necessary communication between theorists and practitioners.

COMPUTER PROGRAMS

NEW COMPUTER EDITOR

Starting next issue, John Sondquist (Sociology, California-Santa Barbara) will be CONNECTIONS' new computer editor. Please send him lots of stuff.

GRADAP (More and Less)

Release 1.0 is now available to operate only on CDC-6400 and Cyber, and only under NOS/BE operating systems. It runs on the now-obsolete FT4 compiler, with possible upgrading to current FORTRAN 77 (FTN5). Despite earlier announcements (repeated in good faith here), it will not run on IBM equipment now--with no date indicated for this.

Program limitations are 6K points, 60K lines, and 150 user-defined point infos, 150 line-infos, 100 pointsets and 100 linesets. Academic prices: US \$500 initially + \$200 annually. (From GRADAP Bulletin 2). For more information, write Technisch Centrum, Universiteit van Amsterdam, Roetsstraat 15, 1018 WB Amsterdam, The Netherlands (020)-522-2702.

HISTORICAL SOFTWARE

Our QUANTUM confreres have started an historical software section in each issue. The first one shows how to use SPSS to study property lists (e.g., testaments, inventories), census lists and other sources dealing with the composition of families; sources reflecting economic transactions of identified persons. See QUANTUM 20; or write Manfred Thaller, Max-Planck-Institut für Geschichte, Hermann-Füge-Weg 11, D-3400, Göttingen, West Germany.

And don't forget the feature article on computer clustering--by James Lattin and Anthony Wong, up front in this issue.

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NEW BOOKS

Charles Tilly (Michigan). 1981. *As Sociology Meets History*. New York: Academic Press. 256 pp. \$25.00.

Explores general issues in collective action, structural change, and historical practice based on the study of social change and conflict in Europe since 1500. Its specific topics include the nature of historical inquiry, the use of computers in historical analysis, George Homans' historical work, the value of Durkheim's theories for the study of large-scale social change, peasant rebellion in seventeenth-century France, conflict in eighteenth--and nineteenth--century Britain, proletarianization, and statemaking. (Publisher's blurb.)

Ronald Burt (Sociology, California-Berkeley). 1982. *Toward a Structural Theory of Action: Network Models of Social Structure, Perception, and Action*. New York: Academic (in press). 375 pp.

My experiences with people lead me to hold two beliefs as a fruitful foundation for constructing systematic social theory. First, people as individual or group actors are purposive, in the sense of using their resources to realize their interests. Second, these purposive actors pursue their interests in the context of social structure generated by the division of labor in society. The intersection of these two beliefs provides my premise for a structural theory of action: Actors are purposive under social structural constraint. Steps toward action theory based on this premise are reported here.

This book is about social structure, perceptions, and action. It is about these items as concepts. It is about strategies through which these items guide empirical research. I propose a model of status role-sets as patterns of relationships defining positions in the stratification space--the social topology--of a system of actors. Processes are proposed by which positions in this space generate actor interests as perceptual norms and feelings of relative deprivation or advantage. Processes are proposed by which the pattern of relationships defining a position creates constraint on the freedom with which actors occupying the position can realize their interests. These processes, captured in mathematical models, are used to describe two strategically important systems of actors: large American corporations involved in manufacturing in 1967 and elite experts in sociological methodology as of 1975. (From Preface.)

CONTENTS: Introduction. Network Structure: The Social Context. Stratification in Elite Sociological Methodology. Stratification in American Manufacturing. Interest: The Perception of Utility. Conformity and Deviance with Respect to Journal Norms in Elite Sociological Methodology. Autonomy and Cooptation. Market Constraints and Directorate Ties with Respect to American Manufacturing Industries. Towards a Structural Theory of Action.

Hans Hummell (Sociology, Duisburg) and Wolfgang Sodeur (Köln). 1981. *Modelle für Ausbreitungsprozesse in Sozialen Strukturen*. Duisburg, West Germany: Sozialwissenschaftlichen Kooperative. 191 pp.

Das Thema der Konferenz "Modelle für Ausbreitungsprozesse in sozialen Strukturen" greift gegenüber den früheren Veranstaltungen zwar einen neuen Gegenstand auf, ohne dass jedoch die Bezugspunkte zu früheren Konferenzen fehlen. So worden vor allem in der vierten Konferenz mit den "sozialen Netzwerken" wichtige, den Verlauf von Ausbreitungsprozessen mitsbestimmende Bedingungen behandelt und in der sechsten Konferenz der "Soziale Wandel" zumindest in einigen Fällen als Ausbreitungsprozess modelliert.

Die Analyse sozialer Ausbreitungsprozesse ist ein Beispiel dafür, wie nach einigen Jahren relativer Ruhe (und Stagnation) alte Probleme wiederaufgegriffen und bei verändertem Schwerpunkt des Interesses neu angegangen werden. Die Gefahr ist dabei nicht auszuschliessen, dass Lösungsversuche in 'alte Sackgassen' laufen, die naturgemäss ungleich schlechter dokumentiert sind als die tatsächlichen oder vermeintlichen Lösungen aus früheren Perioden intensiver Problemdiskussion. Ein Ziel der Arbeitstagung war es deshalb, neue Problemsichten oder Lösungsansätze in enger Verbindung mit der rückblickenden Beurteilung früherer Lösungsstrategien zu diskutieren. Innerhalb dieser generellen Zielsetzung waren Schwerpunkte der Tagung.

(1) die Analyse der Abhängigkeiten der Ausbreitungsprozesse von der für die Übertragung verfügbaren Beziehungsstruktur; (2) die Analyse der Übertragungsvorgänge zwischen "Sendern und Empfängern" und die dadurch für Ausbreitungsprozesse an die Verteilung von Sender- und Empfängereigenschaften in der Population und an Beziehungsstrukturen gestellten Anforderungen; (3) Fragen nach adäquaten Daten für die Analyse von Ausbreitungsprozessen und der zugrundeliegenden Struktur. (From the Preface.)

CONTENTS: Anatol Rapoport, "The impact of network structure on diffusion processes." Klaus Echterhagen, "Zusammenfassung der Diskussion." Hartmut Albrecht, "Diffusion processes and social structure." Gunter Wolf, "Zusammenfassung der Diskussion." Josef Nipper, "The Development of foreign worker employment in the federal republic of Germany." Wolfgang Kärner, "Zusammenfassung der Diskussion." Mark Granovetter and Roland Soong, "Threshold models of diffusion and collective behavior." Wolfram Schwenzer, "Zusammenfassung und Diskussion." Peter D. Killworth, "Small worlds, reverse small worlds, and their role in social structure." Lothar Krempel, "Zusammenfassung und Diskussion." H. Russell Bernard, Peter D. Killworth and Lee Sailer, "A review of informant accuracy in social network data." Rolf Langenheine, "Zusammenfassung der Diskussion."

Vincent Lemieux (Science Politique, Laval). 1982. *Reseaux et appareils: logique des systèmes et langage des graphes*. St. Hyacinthe, Quebec: Edisem. 125 pp. \$7.25.

La plupart des êtres humains préfèrent les joies de la relation sociale au plaisir des choses possédées. Ces joies sont surtout vécues à l'intérieur des réseaux. A première vue, nos réseaux de relations sociales sont d'une nature fort différente des rapports officiels qui nous situent dans les appareils sociaux. Il est cependant fort éclairant de considérer les réseaux comme un type de système social, moins organisé que les appareils. Cette approche systémique oriente vers l'étude de la forme, de la structure et de la fonctionnalité des réseaux sociaux. Pour traiter ces questions de façon rigoureuse, la théorie mathématique des graphes est un outil fécond. (Publisher's blurb.)

MATIÈRES: Une approche systémique. Typologie des études sur les réseaux sociaux. La formalisation en graphes. Substance et structure de systèmes sociaux. Cohésion et fonctionnalité.

Claude Fischer (Sociology, California-Berkeley). 1982. *To Dwell Among Friends: Personal Networks in Town and City*. Chicago: University of Chicago Press. 441 pp. \$12.50.

This book is about how urban life changes personal relations and the ways people think and act socially: such matters as friendship, intimacy, involvement in the community, and life-style. I hope that it will, by extension, also inform our understanding of how modern society may have altered social patterns. It reports findings from a large survey especially designed to map the form and content of people's personal relations and to contrast social life in large cities to that in small towns. In the course of examining the urban issue, it also treats several general topics in the study of social networks.

After presenting the theoretical arguments and the setting of the research in part 1, the book answers in part 2 three common questions about urban life: Does it cause psychological distress? Does it cause social isolation? And does it cause a falling away from traditional mores? Part 3 examines the composition of personal networks--the role of kin, neighbors, co-workers, and the like. Part 4 deals with other properties of networks; the support they provide, their internal structure, their spatial distribution, and their homogeneity. And part 5 explores urban life's influence on people's social involvement in *subcultures* of various types, depicting at the end the clash of subcultures in, and individuals' consequent alienation from, urban public life. (From the Preface.)

CONTENTS: Personal community. The communities, the residents, and why they were there. Personal Networks: An overview. Urbanism and psychological strain. Urbanism and social involvement. Urbanism and traditional values. Kin. Nonkin. Varieties of nonkin: neighbors and co-workers. Varieties of nonkin: organization members and just friends. Personal networks as social support. The structure of relations and networks. The spatial dimension of personal relations. Homogeneity in personal relations: stage in the life cycle. Urbanism and the development of subcultures. Involvement in subcultures: ethnicity and religion. Involvement in subcultures: occupation and pastime. Subcultures: alienation in urban public life.

Robert Bell. 1981. *Worlds of Friendship*. Beverly Hills, Calif.: Sage. 215 pp.

I now believe that family sociologists must start to give special recognition to friendship because it is often meeting the interpersonal needs that have traditionally been met within a marriage or family context --for example, today the many couples who live together in ways both similar and different from marriage. This book in part reflects a careful search of the literature on friendship. For the most part, I have limited my focus to the various kinds of sociological research that is available. This book also draws upon my own study of friendship and aloneness. (From the Preface.)

CONTENTS: Meanings of friendship. Childhood and adolescent friendships. Women and friendship. Men and friendship. Cross-sex friendship. Courtship, marriage, and friendship. Married couples and their friendships. Divorce and friendship. The elderly and friendship.

Oscar Newman. 1981. Community of Interest. Garden City, N.Y.: Doubleday Anchor. 339 pp.

In this book, I examine many different types of housing environments--middle- as well as low-income developments, those serving elderly and working couples as well as those serving families with children, detached single-family units as well as multifamily units--I also examine the ways that housing environments function as sociopolitical entities. Residential environments are examined as settings which not only answer housing needs but which also influence residents by the social milieu they offer, the life-style that can be pursued, and the capacity to influence activities within the development and the areas beyond.

This is not to say that I have set aside my interest in how physical design facilitates interaction between neighbors and enables residents better to control the areas outside their homes. Rather, I have extended my interest in the effects of physical form to the measurement of how it varies with differences in the socioeconomic makeup of residents. I am also concerned with how variations in the physical form of housing can better serve different age and life-style groups; how the vulnerability of residents to poorly designed housing varies with income group; and how the physical form of housing affects the percentage of low-income residents that can be integrated into middle-income developments while still maintaining stable, low-crime communities.

My over-all interest is in determining how the physical form of housing, in varying combinations with the social characteristics of residents, serves to help create a community among neighbors. However, people's experience of crime and their fear of crime remain the critical factors affecting the creation and stability of urban communities in America today. The concepts of defensible space, therefore, appear in this volume as well--but they are further developed and enlarged upon, following upon the findings of subsequent research. (From the Preface.)

Ronald Weissman (History, Maryland). 1981. Ritual Brotherhood in Renaissance Florence. New York: Academic. 272 pp. \$27.50.

The opening chapter presents a brief overview of the basic characteristics of Florentine social networks, emphasizing the social meanings that middle- and upper-class Florentines--the groups that participated in fraternities--drew from their experience in these networks. Chapter 2 discusses the structure, ritual, and cultural meanings of the Renaissance confraternity and demonstrates the various ways in which the confraternities created alternatives to the larger social order. The third chapter statistically analyzes patterns of membership structure and participation: this is the first demographic study of a pre-modern European voluntary association. Subsequent chapters examine the collapse of fraternal organizations at the beginning of the sixteenth century and the creation of new fraternal organizations and ritual relations during the Catholic Reformation. (Publisher's blurb.)

Donald Warren (Sociology, Oakland). 1981. Helping Networks: How People Cope with Problems in the Urban Community. Notre Dame, Indiana: University of Notre Dame Press. \$10.95.

Based on survey research, this report describes and analyzes how and from whom people seek help to deal with various crises in their lives. The results raise social policy questions concerning the usefulness and extensiveness of tax-supported social services. Ur

Who do people turn to in times of stress and crisis? Empirical evidence indicates that people most often take their problems to family members, neighbors, and friends, and that there exist informal helping networks which are crucial to the life of the community. Warren distinguishes between the networks generally operative in various types of neighborhoods, and he shows how these can provide a new framework for understanding community.

CONTENTS: Focus of the helping network study. A theory of the help seeking process. Using helping networks: the overall patterns. The neighborhood context of helping networks. Community patterns and problem coping. The helping networks of different social groups. Helping networks and the use of formal services. Varieties of urban ties: a new framework for understanding community. Findings and implications of the helping network study: an overview. Programmatic uses of helping/social network analysis.

E. Mansell Pattison, ed. (Psychiatry, Medical College of Georgia). 1982. Clinical Applications of Social Network Theory. New York: Human Sciences Press. 84 pp. \$8.95.

Basic theoretical concepts and clinical applications of social network theory are critically explored in this special issue of the International Journal of Family Therapy. The contributors articulate the relationships between social network research and practice. (Publisher's blurb.)

Charles Frolan, Diane Pancoast, Nancy J. Chapman, Priscilla Kimboko (Urban Affairs, Portland State). 1981. Helping Networks and Human Services. Beverly Hills, Calif.: Sage. 199 pp.

Each of the chapters explores different considerations regarding what is involved in developing a beneficial relationship between formal and informal sources of care. We present the finding of our study by first looking at types of informal helpers and what each can do, and at some of the motivations underlying their activities. We then present the major features of the partnership we envision by describing the variety of ways informal sources of help were involved in agency services, the program strategies developed to promote this involvement, and the relationships formed between agency staff and informal helpers in the community. Case examples are frequently provided.

Having described the basic elements of the relationships we observed in our sample of 30 agencies, we examine the costs and consequences of different program strategies and how these varied according to the problem or task being addressed. We then discuss how program strategies can be integrated in practice and describe the benefits of doing so. Next, we put the idea of a partnership in context by discussing how relationships between professionals and informal helpers are influenced by aspects of a particular agency and by characteristics of a neighborhood with which an agency may be working. Further, we look at the way other agencies influence an agency's work with informal helpers.

The last 2 chapters discuss the findings of the study in a broader context of program policy and practice. Here, we look at implications for the role of professionals and possible modifications in traditional practice roles. Finally, we discuss policy considerations for agency decision makers in designing or implementing ways to involve informal helpers in a system of community care. (From the Introduction.)

David Knoke (Sociology, Indiana) and James R. Wood. 1981. Organized for Action: Commitment in Voluntary Associations. New Brunswick, N.J.: Rutgers University Press.

Knoke and Wood seek to understand what makes voluntary associations effective in influencing public policy. They employ data from 32 voluntary social influence organizations based in Indianapolis. While the organizations vary widely in composition and purpose, most of the questions asked about their operation are relevant to community organizations. The sample includes eight neighborhood associations and coalitions of neighborhood associations, as well. The authors explore the linkages among incentive systems, members' commitment, participation in decision making, leaders' legitimacy, and organizational structure and effectiveness. They find that greater "professionalization" and complex interorganizational relations are among the keys to securing resource and exerting influence. (From NORG Bulletin.)

Robert Ferrucci and Dena Targ (Sociology, Child Development; Purdue). 1982. Mental Patients and Social Networks. Boston: Auburn House. 176 pp. \$19.95.

Mental patients with close and supportive social networks tend to be hospitalized more quickly and to fare better in mental hospitals, and are more likely to be released than those whose networks are less supportive. Researchers at Purdue University present a new approach to the study of mental illness that emphasizes the process or "career" of the mental patient--from becoming defined as mentally ill through release from the hospital--and the role of social networks (family, friends, co-workers, neighbors) in shaping that process.

The authors studied the careers of mental patients committed to two large state mental hospitals, using hospital records and interviews with the members of their social networks. They found that the quality of patients' social ties relates to their progress at each stage. Close, supportive networks, for instance, tend to view a member's initial unusual behavior as "symptoms." They are more likely to seek professional help and to move more swiftly toward hospitalization. Loose networks, on the other hand, tend to "normalize" unusual behavior, attributing it to marital, legal, or life-transition problems. In such cases, when the decision to commit is finally made it is seen more as a last resort, often at the intervention of outsiders such as the police.

Hospital personnel also tend to be more attentive to patients with close networks. More progress report entries are in these patients' records, and statements like "when the patient is released . . ." are frequently included. By the end of the study nearly 80% of the patients with supportive networks had been released, compared with fewer than 40% of those with less supportive networks. (From Publisher's blurb.)

Jessica Lipnack and Jeffrey Stamps. 1982. Networking: The First Report and Directory. Garden City, NY: Doubleday Dolphin. 416 pp. \$15.95.

Both a practical, down-to-earth report on the process of networking and a comprehensive directory to over 1500 key social change networks. It not only examines what a network is, why it works, and how to use it, but it also provides the most reliable, up-to-date research findings about the new age in which we live.

This book gives you invaluable information on how you can share ideas, services, equipment and interests with other people, nationally and internationally. It reveals how people working together can change their lives, and the world today, for the better.

The directory portion of the book is a compendium of seven broad topic areas: (1) health and the life cycle, (2) communities and cooperatives, (3) ecology and energy, (4) politics and economics, (5) education and communications, (6) personal and spiritual growth, and (7) global and futures networks. Five indexes cross-reference the lists so that each group, subject, and publication is easily located by the reader. (From Publisher's blurb.)

Larry S. Bourne, ed. (Geography, Toronto). 1982. Internal Structure of the City, 2nd ed. New York: Oxford. 629 pp.

The specific focus of the readings selected is the spatial structure and changing internal environment of contemporary urban areas. Initially we may define urban spatial structure as comprising the form (shape and internal arrangement), interrelationships (organization), behavior, and evolution of activities (e.g., land uses, the built environment, systems of socioeconomic activities, and political institutions) in the city. (From Introduction.)

SELECTED CONTENTS: Torsten Hågerstrand, "The impact of social organization and environment upon the time-use of individuals and households." David Harvey, "Labor, capital, and class struggle around the built environment in advanced capitalist societies." Michael Dear, "Planning for mental health care: a reconsideration of public facility location theory." John Short, "Residential mobility." Barry Wellman and Barry Leighton, "Networks, neighborhoods and communities." Fred Boal, "Close together and far apart: religious and class divisions in Belfast." Ronald Johnston and Christopher Kissling, "Establishment use patterns within central places." John Goddard, "Movement systems, functional linkages and office location in the city centre: a study of central London." Ithiel de Sola Pool, "Communications technology and land use." Janet Abu-Lughod, "Designing a city for all."

Dietrich Gerhard. 1981. Old Europe: A Study of Continuity, 1000-1800. New York: Academic. 160 pp. \$12.50.

This book supplements and corrects assumptions widely held about the earlier European centuries. The author abandons the concepts of "Middle Ages" and "Early Modern Times." He refrains from tracing early indications of "modernity" in institutions and society as well as from stressing "national" concerns in these centuries. Corporate organization and regional attachment are presented as the basic traits of "Old Europe." Special emphasis is placed in Chapter 3 on the eleventh to the thirteenth centuries as the period in which these features became paramount and on the conditions that led to their adoption. Chapter 4 shows that the changes wrought by the Renaissance and Reformation did not alter the fundamental features of the Old Order. Chapter 5 demonstrates their weakening since the late seventeenth century, and the Epilogue describes their abandonment since the French and the Industrial Revolutions. (Publisher's blurb.)

Samuel Kline Cohn, Jr. 1980. The Laboring Classes in Renaissance Florence. New York: Academic. 320 pp. \$29.50.

This work investigates the other side of Renaissance history, that side which pertained to the mass of men and women and which the current historiography concludes in effect had no history--no history in the sense that the collective and individual actions of these men and women in any way helped to shape their own lives or society as a whole. To reconstruct that other side of the Renaissance in Florence, this book examines sources that never before have been studied systematically--the notarial and criminal archives of Florence. Yet this work is more than just an empirical dusting of certain shelves in the Archivio di Stato, Firenze. It considers the laboring classes in the larger context of class relations and concludes that to understand the broad political and social changes from the fourteenth through the fifteenth centuries in Florence, the historian must consider changes both within the laboring classes as well as the interaction between the laboring classes and the ruling elite--or, to be more direct, class struggle. (From the Introduction.)

Peter Saunders (Sociology, Sussex). 1981. Social Theory and the Urban Question. New York: Holmes & Meier. 310 pp. \$11.95.

Over the last decade a revolution has occurred in urban studies. Theoretical orthodoxies have been challenged or overturned, and the applications of Weberian and Marxist perspectives to the analysis of cities have given rise to new questions about the role of the urban system in a capitalist economy. (This book) offers a guide to, and a critical evaluation of, key themes in contemporary urban social theory, as well as a re-examination of more traditional approaches in the light of recent developments and criticism. Dr. Saunders discusses current theoretical positions in the context of the work of Marx, Weber and Druikheim. He suggests that later writers have often misunderstood or ignored the arguments of these 'founding fathers' of the urban question. Dr. Saunders uses his final chapter to apply the lessons learned from a review of their work in order to develop a new framework for urban social and political analysis. (Publisher's blurb.)

James Simmie. Power, Property and Corporatism. London: Macmillan. £6.95.

Simmie presents a new theory of power and domination in cities, identified as 'imperfect pluralism.' He argues that the use and effects of power are of central importance in understanding the development and change of cities. While Marxists are right to emphasize class struggles, their accounts of the role and position of the state are seen as theoretically deficient and not empirically supported. Simmie suggests that corporate organizations of different kinds are the main groups influencing political outputs. (Publisher's blurb.)

Michael Harloe, ed. New Perspectives in Urban Change and Conflict. London: Heinemann. £15.00.

Eleven papers from the 1979 CUS/Nottingham "Urban Change and Conflict" conference, reporting on the "new" structuralist urban sociology in Britain. They include Howard Newby on urbanism and the rural class structure, Peter Saunders on urban politics, Brian Elliot and David McCrone on technocrats and Bryan Roberts and Ignasi Terrades comparing Manchester, Lima, and Barcelona.

Michael Dear (Geography, McMaster) and Allen J. Scott (Geography, UCLA), eds. 1981. Urbanization and Urban Planning in Capitalist Society. London: Methuen. 615 pp.

This book is an attempt to define a general theory of urbanization and planning. It seeks to achieve this goal by bringing together and synthesizing a wide range of critical perspectives on the urban question. In particular, the book attempts to capture and to give form to much of the new urban theory (and its cognate analytical procedures) that is currently emerging in North America and Western Europe. This is a theory that generally insists upon the explicit derivation of contemporary urbanization processes out of the structure of the capitalist mode of production.

The book unfolds in a series of six logical stages. First, the argument opens with a broad *introductory statement* which outlines the main qualities and properties of a critical analysis of urban phenomena in capitalism. Second, the argument proceeds to examine the *conceptual preliminaries* necessary for the establishment of a theory of urbanization and planning as rooted in capitalist social structures. Third, a theoretical exposition is undertaken of the *fundamental logic of urbanization and urban planning*. Fourth, there follows a detailed discussion of *commodity production in cities* and of its effects on urban development. Fifth, a series of analyses is presented of the subtle and controversial problems of *reproduction and social life* in capitalist cities. Sixth, by way of a broad conclusion, a synthesis is made of some of the important political relationships linking *urbanization, social class, and the capitalist State*.

The text as a whole is a joint effort, and each of the chapters was written by a different author or authors. In spite of this, the book was conceived from the outset as a whole, in that a basic outline was defined, and authors were subsequently commissioned to write specific chapters. (From Preface.)

CONTENTS: Michael Dear and Allen J. Scott, "Towards a framework for analysis." Matthew Edel, "Capitalism, accumulation and the explanation of urban phenomena." Gordon Clark and Michael Dear, "The State in capitalism and the capitalist State." David Harvey, "The urban process under capitalism: a framework for analysis." Shoukry T. Roweis and Allen J. Scott, "The urban land question." Shoukry T. Roweis, "Urban planning in early and late capitalist societies: outline of a theoretical perspective." Michael Harloe, "Notes on comparative urban research." Doreen Massey, "The UK electrical engineering and electronics industries: the implications of the crisis for the restructuring of capital and locational change." C. G. Pickvance, "Policies as chameleons: an interpretation of regional policy and office policy in Britain." Martin Boddy, "The property sector in late capitalism: the case of Britain." R. B. Cohen, "The new international division of labor, multinational corporations and urban hierarchy." Damaris Rose, "Accumulation versus reproduction in the

inner city: *The Recurrent Crisis of London revisited.*" John Mollenkopf, "Community and accumulation." Richard A. Walker, "A theory of suburbanization: capitalism and the construction of urban space in the United States." Kevin R. Cox, "Capitalism and conflict around the communal living space." J. A. Agnew, "Homeownership and the capitalist social order." Michael Dear, "Social and spatial reproduction of the mentally ill." N. H. Buck, "The analysis of state intervention in nineteenth-century cities: the case of municipal labour policy in east London, 1886-1914." Harold Chorney, "Amnesia, integration and repression: Canadian urban political culture." Ivan Szelenyie, "The relative autonomy of the State or state mode of production?" Joachim Hirsch, "The apparatus of the State, the reproduction of capital and urban conflict."

Alejandro Portes (Social Relations, Johns Hopkins) and John Walton (Sociology, California-Davis). 1981. Labor, Class, and the International System. New York: Academic. 240 pp. \$19.50.

We (have become) increasingly uneasy with those geopolitical categories of convenience that easily confound and sometimes distort an understanding of the general conditions of development and underdevelopment. We analyze in detail the issues of international migration, the urban informal economy of peripheral societies, ideologies of inequality, and social class in core societies under influences of the internalization of capital. (From the Preface.)

An introductory chapter analyzes the evolution of theories of imperialism and the international system from Hobson, Lenin, and Luxemburg through recent work on the modern world system. (Publisher's blurb.)

David M. Gordon, Richard C. Edwards, and Michael Reich. 1981? Segmented Work, Divided Workers. New York: Cambridge University Press. \$9.95.

[Develops] an overall conception in the evolution of labor markets and industrial capitalism based on new and creative Marxist thinking about the changing settings and characteristics of the drive for capital accumulation. (From David Montgomery's blurb.)

Ino Rossi, ed. 1982. Structural Sociology. New York: Columbia University Press. 361 pp.

I have undertaken the task of systematically dealing with some of the "new questions" which have been emerging within the sociological "consciousness" under the impact of various forms and phases of French structuralism. The majority of the essays, all of which have been especially prepared for this volume, deal with aspects of the interface between traditional orientations and recent French structuralism from perspectives which are sympathetic to the latter orientation, without, however, arguing for prejudged positions. In my opinion only such an orientation permits a serious reconsideration of classical sociological paradigms and the incorporation of some aspects of the structuralist perspective within the mainstream of sociological thinking. It is my firm belief that such an investigation will bring to light the presence within our sociological tradition of much deeper continuities with such pioneers as Durkheim, Mauss, Marx, than have been so far thought of or even suspected. (From the Preface.)

CONTENTS: Ino Rossi, "Relational structuralism as an alternative to the structural and interpretive paradigms of empiricist orientation." Priscilla P. Clark and Terry Nichols Clark, "The structural sources of French structuralism." Talcott Parsons, "Action, symbols, and cybernetic control." Arthur L Stinchcombe, "The deep structure of moral categories." Fred E. Katz, "Structural autonomy and the dynamics of social systems." Peter P. Ekeh, "Structuralism, the principle of elementarism, and the theory of civilization." S. N. Eisenstadt, "Symbolic structures and social dynamics." Thomas F. Condon and Stephen G. Wieting, "Morality, justice, and social choice." Charles W. Lidz, "Toward a deep structural analysis of moral action." Martha E. Gimenez, "The oppression of women." Maurice Godelier, "The problem of the 'Reproduction of Socio-economic Systems.'" Charles C. Lemert and Willard A. Nielsen, Jr., "Structures, instruments, and reading in sociology."

Anthony Giddens (Sociology, Cambridge). 1981? A Contemporary Critique of Historical Materialism. £4.95

Giddens sees plainly that the structuralism of thinkers like Althusser and Poulantzas is functionalist through and through. But Giddens' objections to structuralism don't stop there. For Giddens has for a long time insisted that structures are not merely constraining but enabling, that they are not something set against individuals like so many natural objects, but are dependent on "knowledgeable human agents" for their continued existence. In short, a genuine dialectic operates in social life, whereby individuals both submit to and alter the impersonal and institutional arrangements they find around them. This, however, must look to a lot of us like the rediscovery of common sense; it is doubtless a triumph to spend a long time reading Parsons and Althusser and still retain one's common sense, but the end result is not more impressive than that. (From Alan Ryan's *New Society* review.)

Franco Ferrarotti. 1980. *Il potere come relazione e come struttura*. Roma: Editrice IANUA. Lire 3,000.

Il Potere tradizionalmente analizzato in maniera dilemmatica dai filosofi e dagli analisti sociali, o come dato strutturale, formalmente codificato, o come rapporto intersoggettivo, viene qui studiato sia come relazione che come struttura.

Chi detiene il potere? Quale è il destinatario delle sue decisioni? Chi agisce? Chi subisce? A partire da una puntuale e stimolante ricostruzione di filoni ed apparati analitici contrapposti, vengono qui delineate alcune linee interpretative sul fenomeno ai nostri giorni.

Il Potere è riconoscibile attualmente, nella crisi dei gruppi dirigenti su scala mondiale, non tanto perché agisce, perché "si spende", invece perché si rifiuta o non sa scegliere, decidere, prendere iniziative più o meno razionali, razionalmente valutabili. Si sta verificando - sostiene Ferrarotti - la transizione dal potere clientelare al potere inerte. Il testo affronta questi problemi e sottolinea la matrice dell' insofferenza e della sfiducia della gente, su cui si innestano fenomeni quali il terrorismo e la violenza, individuandola nella amministrazione oculata e opportunistica degli scandali, nella volontà di non cambiare nulla, o comunque quel tanto che serve a far restare tutto come prima.

Il momento analitico è fondamentale per comprendere e agire, ed il volume è una acuta testimonianza in merito, basata su di un'ampia disamina delle trattazioni fin qui avute da M. Weber e K. Marx fino a Dahrendorf. (Publisher's blurb.)

Paul Hirst and Penny Wooley. 1982? *Social Relations and Human Attributes*. New York: Tavistock. \$8.95.

Explores the ground between the various social sciences, including anthropology, psychology, linguistics, and biology. The authors take a small number of broad topics such as mental illness, social conceptions of the body and death, and the intellectual consequences of printing, and examine them in order to reveal the many-layered character of social reality. The result is a new approach to the social sciences, covering the interaction between biology and culture, mental illness and personality, and witchcraft and rationality. (From Publisher's blurb.)

Peter Marsden (Sociology, North Carolina), ed. 1981. *Linear Models in Social Research*. Beverly Hills, Calif.: Sage. 336 pp. \$12.50.

(Most papers previously appeared in the journal *Sociological Methods and Research*.)

Social scientists use linear models when they attempt to state the causal laws that operate in one or more persons, groups, organizations, or nations. The linear models represent research-based conceptions of the structures determining how explanatory or independent variables combine to produce variations in response (or dependent) variables. Assuming that the reader is familiar with elementary statistics through multiple regression and some matrix algebra, (the authors) demonstrate how statistical techniques can be applied to social science problems. Their articles deal with increasingly complicated forms of linear models: single-equation regression models; multi-equation models; and models with unobserved variables and measurement error. The editor's introductory essays explain the significance of each article and locate the illustrated uses of linear models in a broader methodological context.

CONTENTS: Jae-On Kim and G. Donald Ferree, "Standardization in causal analysis." Jerry L. L. Miller and Maynard L. Erickson, "On dummy variable regression analysis: a description and illustration of the method." David R. Heise, "Employing nominal variables, induced variables, and block variables in path analyses." James A. Stimson, Edward G. Carmines, and Richard A. Zeller. "Interpreting polynomial regression." Peter V. Marsden, "Conditional effects in regression models." Duane F. Alwin and Robert M. Hauser, "The decomposition of effects in path analysis." Howard S. Erlanger and Halliman H. Winsborough, "The subculture of violence thesis: an example of a simultaneous model in sociology." Kenneth C. Land and Marcus Felson, "Sensitivity analysis of arbitrarily identified simultaneous-equation models." John Fox, "Effect analysis in structural equation models: extensions and simplified methods of computation." J. Scott Long, "Estimation and hypothesis testing in linear models containing measurement error: a review of Joreskog's model for the analysis of covariance structures." William T. Bielby and Robert M. Hauser, "Response error in earnings functions for nonblack males." Ronald S. Burt. "A note on interpretational confounding of unobserved variables in structural equation models."

Fred Roberts (Rutgers). 1978. *Graph Theory and its Applications to Problems of Society*. Philadelphia: Society for Industrial and Applied Mathematics. 116 pp.

CONTENTS: The 1-way street problem. Intersection graphs. Indifference, measurement, and seriation. Food webs, niche overlap graphs, and the boxicity of ecological phase space. Colorability. Independence and domination. Applications of Eulerian chains and paths. Balance theory and social inequalities. Pulse processes and their applications. Qualitative matrices.

George Bohrnstedt and David Knoke (Sociology, Indiana). 1982. *Statistics for Social Data Analysis*. Itasca, Ill.: F. E. Peacock. 475 pp. \$22.50.

This textbook introduces students to statistics as a tool for thinking about and analyzing social research data. The emphasis throughout is on relationships between variables. The chapters are built around analyzing important theoretical questions using real data sets accessible to most students. Many examples and problems use the General Social Surveys or a smaller 63 Cities data set included in an appendix. The instructor has an option for students to try their own SPSS computer analyses. The book departs from typical formats by emphasizing contemporary views on continuous variable measurement and parametric statistical techniques. (From Publisher's blurb.)

Peter Stringer (Psychology, Surrey) and D. Bannister (High Roads Hospital, Menston, W. Yorkshire), eds. 1979. *Constructs of Sociality and Individuality*. London: Academic.

There has been a tendency to view personal construct psychology, if dealing with relations at all, as relevant only to dyadic interactions. The attention given to the therapist-client relation is partly responsible. In addition, the repertory grid has often been taken as providing information about a set of dyadic relations, viewed asymmetrically, between the person completing the grid and significant others. Although group processes have rarely been examined through personal constructs, there is in principle no reason why they should not be. Many groups could be considered a semi-connected lattice of relations, constituted through the procedures outlined above. A collective or group construct system could be construed by an individual or a group in a manner analogous to the construing of one person by another. Equally, the process of construing would constitute the individual-group or inter-group relations. (From the Introduction.) The book includes C. P. Hargreaves, "Social networks and interpersonal constructs."

Lewis Cosen (Sociology, SUNY-Stony Brook), Charles Kadushin (Sociology, CUNY) and Waler Powell. 1981. *Books: The Culture and Commerce of Publishing*. New York: Basic Books. \$19.00.

A comprehensive examination of book publishing in America, not only for trade books and blockbusters, but for college texts, scholarly and monograph publishing, and university presses. Based on extensive field research and hundreds of interviews, a contribution to the sociology of ideas and organizations. (From Publisher's blurb.)

Liora Salter (Communications, Simon Fraser), ed. 1981. *Communication Studies in Canada*. Toronto, Butterworths. 336 pp. \$16.95.

Provides the first overview of the field of communication studies as it is developing in Canada. A strong theoretical orientation is combined with practical policy considerations to delve into questions that are both topical and critical.

The text's three sections - The Medium of Communication; The Role of Communication; Methodology for Communication Analysis - contain papers that were presented in 1980 to the Canadian Communication Association in Montreal. Topics discussed in the articles include the relationship between new technologies and the process of social development, the political economy of media industries, current regulatory policies, news production, and an analysis of communication theory as a discontinuous theoretical tradition. (The book) contains eleven chapters in English and five in French, each accompanied by an abstract in translation. (From Publisher's blurb.)

Victor Marshall (Behavioural Science, Toronto), ed. 1981? *Aging in Canada: Social Perspectives*. Pickering, Ontario: Fitzhenry & Whiteside. 384 pp. \$7.50.

Designed for courses in health and the social sciences, this volume assembles a broad spectrum of materials on aging and its implications both for individuals and for Canadian society as a whole. Contributors are drawn from many disciplines. Two-thirds of the articles have been prepared especially for the book, and combine a fundamental data base with theoretical and methodological considerations.

SELECTED CONTENTS: Norman Shulman, "The aging of urban Canada." Neena Chappell, "Social policy and the elderly." Joseph Tindale and Victor Marshall, "A generational conflict perspective for gerontology." Sharon Abu-Laban and Baha Abu-Laban. "Women and the aged as minority groups." Barry McPherson and Carol Kozlik, "Canadian leisure patterns by age: disengagement, continuity or ageism?" Sharon Abu-Laban, "The family life of older Canadians." Jane Syge, "Work and family support patterns of the aged in the early 20th century." Darlene Flett, John Last, and George Lynch, "Evaluation of the public health nurse as primary health care provider for elderly people."

Instructions to Authors

TYPES OF CONTRIBUTIONS

We encourage all sorts of contributions from members and colleagues: research papers of any length, reviews of applications of networks in different fields, comments and critiques, survey articles, computer programmes, conference information, abstracts, teaching aids, etc.

LANGUAGES

We will publish submissions in any language the editors can read. These include English, French, German, Greek, Japanese, Italian, and Dutch. However, you have a much greater chance of being read, if you write in English. (Submissions in other languages must be accompanied by an English abstract.)

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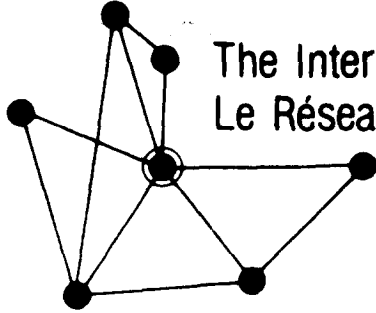
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