



## Ties & Bonds

---

### BBS [Barry's Bulletin-Board Service]

**Karen Pettigrew** now Asst Prof of Info Sci, U of Washington.... **Keith Hampton** (Soc, Toronto) starting 1/01 as Asst Prof of Technology and Urban & Community Sociology in MIT's Department of Urban Studies and Planning.... **Eric Klinenburg** (Ph.D, Berkeley) now Asst Prof of Soc, Northwestern U.... **Nancy Nazer** (Soc Toronto) now Assoc Dir of Organizational Development at Bell Canada, with a mandate to network the organization.... Former *Connections* Assoc Ed., **June Corman**, now Chair, Soc, Brock U (Canada).... **Jill Suitor** now head of Gender Studies at Louisiana State.... **Robert Perucci** and **JoAnne Miller** (Purdue) new co-editors of *Contemporary Sociology*.... **Robert Fernandez** moved from Stanford to Sloan Schl of Management, MIT.... **Alaina Michaelson Kanfer** has moved from the National Supercomputer Center in Champaign, IL to work in Minnesota, where her husband has a studio. Larry Kanfer is a renowned prairie photographer.... **Martina Morris** moved, Summer 00, to Soc, Univ of Washington, where she will be the Blumstein-Jordan Prof. of Soc & Stats. The Chair is named in part for Phil Blumstein, a wonderful person and researcher into sexuality and intimate relations who died young.... **Phillipa (Pip) Patterson** promoted to Prof at Psych, U Melbourne – that's a bigger deal than in North America – there are only 4 profs in the whole dept. (Modest Pip didn't tell me this, but I have sources!)

....**Richard Alba** (Soc, SUNY-Albany) has won a Guggenheim fellowship to study second generations in immigrant societies.... Gustavo Mesch and **Ilan Talmud** (Soc, Haifa) have received a grant from the Israeli Ford Fdn to study internet use among Israeli adolescents....

**Randy Collins** (Soc, U of Penn) nominated to run for AmSocAssoc Prexy; **John Hagan** (currently at Soc, Northwestern, but he always seems to come back to Toronto) nominated to run for ASA Vice-Prexy.... **Nan Lin** (Duke) elected chair of ASA's Mental Health section... **Phil Bonacich** (UCLA) elected chair of the ASA's Rational Choice section – certainly a case of the title fitting the deed.... **Doug Heckathorn** (Cornell) elected to the Rational Choice Council.... **Liviana Calzavara** promoted to tenured Assoc Prof at Public Health Sci, U Toronto. She's also Deputy Director of the HIV-AIDS research unit.... **Barry Wellman** has been elected to the Executive Committee of the Sociological Research Association honor society, with an inexorable 5-year rise to the Chairship.... He's also received an NSF grant with **James Witte** (P.I., Soc, Clemson), **Wendy Griswold** (Soc, Northwestern), **Keith Hampton** (Urb Studies, MIT), **Catherine Mobley** (Soc, Clemson) and **Pete Peterson** (Soc, Vanderbilt) to do the second study of National Geographic website visitors and Internet users/nonusers in 2001. **Vicente Espinoza** (Adv Studies, Santiago) will do the Spanish version.... **Barry Wellman** also gave the first keynote address at the 9/00 founding conf. of the Assoc of Internet Researchers.... **Stephanie Potter** (now a consultant in Ottawa) gave birth to her 3<sup>rd</sup> child, Evan Jackson Potter Murray.

---

### John Sonquist Ticks the Ivories

John Sonquist was one of the first data-miners, inventing AID (Automatic Interaction Detector) decades too early to cash in on data mining, and coming up with nifty ways to think about social networks. (For example, see: James Mulherin, Hugh M. Kawabata and John A. Sonquist. 1981. "Relational Databases for Combined Network and Attribute Data Files: A SAS

Implementation." *Connections* 4 (1): 22-31.) John writes that problems with computers have changed. "It used to be, 'I think, therefore I am.' Now it's 'I'm a database, therefore I am.'" John is still consulting "and I still prefer branching search techniques as a preface to a general model." (email 29 June00).

Since retiring from U Cal Santa Barbara Soc, he has had a "whole new second career as a professional pianist" (email, 26May00). John's the webmaster of the Chamber Musicians of Northern California ([www.cmnc.org](http://www.cmnc.org)). A 29June00 email told me that "I'm off to two weeks of chamber music workshops. Playing 14 hours a day for 2 weeks straight is about as close to have as I can get without having an out-of-body experience."

Another website notes that John is a "pianist, accompanist, arranger and chamber music coach, [with] musical interests including classical, folk, and jazz. He also plays guitar, 5-string banjo, and recorder." John "started playing piano at age 4 and studied with the noted Hungarian teacher Margit Varro. He has accompanied numerous singers and received acclaim for his role as jazz-pianist-big-band-leader 'Zoot' in Westmont College's 1995 production of the musical 'A 1940's Radio Show.'" These quotations come from [www.sevensouth.com/recordshop/WaveReb/ABisLib.html](http://www.sevensouth.com/recordshop/WaveReb/ABisLib.html). It's the site of John and vocalist Rebecca Wave's new Yiddish language CD, *A Bis'l Libe, Un a Bisdele Glik*, which (if I listened to my grandmother Sophie right means, "A Little Love and a Little Luck." John's always had a lot of both.

---

### Just Desserts

**Chuck Tilly** (Soc, Columbia) won the ASA's Distinguished Scholarly Publication award (00) for *Durable Inequality*.

**Merrijoy Kelner** and **Beverly Wellman** with **Bernice Pescosolido** and **Mike Saks** have a new edited book filled with networks: *Complementary and Alternative Medicine: Challenge and Change*. It's the 1<sup>st</sup>-ever social science book to deal with the networks of who uses non-official medicine and why. Guaranteed to be a best-seller, so reserve your copy now from Harwood Academic

Publishers, Reading UK. Price: \$23; £15, €25.

**Everett Rogers** awarded the Int'l Comm Assoc's inaugural **ICA Fellows Book Award** (00) for *The Diffusion of Innovations*. This award is given to "those books that have made a substantial difference in the scholarship of the field of communication and have stood at least some test of time" (operationally defined as > 5 yrs).

**Vladimir Batagelj** and **Andrej Mrvar** (Ljubljana) won 1<sup>st</sup> prize 9/00 in a network visualization competition at the Annual International Symposium on Graph Drawing, Colonial Williamsburg, VA, USA. They've won in at least 1 category in each GD Contest since 1995. The contest report will be published in the conference proceedings, to appear in Springer-Verlag's *Lecture Notes in Computer Science* series, late 2000. Details at [www.cs.virginia.edu/~gd2000/](http://www.cs.virginia.edu/~gd2000/) and [www.infosun.fmi.uni-passau.de/GD2000/index.html](http://www.infosun.fmi.uni-passau.de/GD2000/index.html)

**Vicente Espinoza** (former *Connections* Associate Ed.) has received the 1999 Best Researcher of the Year Award from the Universidad de Santiago de Chile.

**Tim Rowley** and **Stan Li** (Mgmt, U Toronto) won the Best Paper Award for the 2K Academy of Management Conf in the Business Policy & Strategy Division.... **Tim** and **Joel Baum** (also Mgmt< Toronto) received a \$105K grant from Soc Sci & Hum Res Council of Canada to study "The Organizational Economy of Financial Markets."... The beat goes on: **Joel Baum**, **Brian Silverman** and **Tony Calabrese** (Soc, Utoronto) had their paper, "Patent Races, Capital Races, Learning Races, and Partnering Races in Canadian Biotechnology 1991-1997" nominated for the 2K McKinsey Strategic Management Sty's Best Conf. Paper Prize.... All by himself, **Joel Baum** received the Dean's Award for Research Excellence.

---

### Networks of Science

**A Structuralist Competitor for the NSF?** Some US sociology of science folks are establishing a new age-ish *American Science Foundation* to "compete with the NSF and NIH for funds on the basis of documented accomplish-

ments in supporting effective and influential research.” A structuralist line appears in their manifesto: “Differ from the NSF by not privileging one direction of integration between the molecule and other levels of organization.” (p. 2). However, given the name of the new body, national boundaries are being maintained [Source of quotations: Tom Gieryn, “From the Section Chair, “Amer Soc Assoc Science, Knowledge and Technology section newsletter, Su 2000: 1-2].

**Interview with a Networking Vampire:** “Many biologists believe that human social organization has also favored genes for intelligence. Our species, for example, has ‘reciprocal altruism.’ We are designed to feel warmly toward people who do favors for us, to return the favors, and thus to forge mutually beneficial relationships – friendships. What’s more one kind of favor we swap is social support. That is, we are a ‘coalitional’ species; groups compete with each other for status and influence. Reciprocal altruism takes brainpower – to remember who has helped you and who has hurt you. And the coalitional variety takes more brainpower, since strategic plotting and communication among allies are vital. Here again, the basic ingredients are not peculiar to us. Vampire bats have reciprocal altruism; they’ll donate painstakingly gathered blood to a needy friend, who will return the favor when fortunes are reversed.... As for the richer form of reciprocal altruism, coalitional contention, it turns out not to be confined to such famously political animals as chimpanzees. Bottle-nosed dolphins even form coalitions of coalitions. Team X of male dolphins will help team Y vanquish team Z, and later, team Y will return the favor. Since victory brings sex, skill in coalition-building is an obvious candidate for an arms race among dolphins.” Robert Wright, “Why Stephen Jay Gould is Bad for Evolution.” *New York*, 2000: 56-65.

**Solace for Writing Blockers:** It took Charles Darwin 20 years from when he was schlepping around the Galapagos avoiding iguana droppings to writing *The Origin of the Species*. The data were there; the theory came more slowly. [Carol Kaesuk Yoon, “Riches Hidden in Plain Sight,” *New York Times* 20Jun00: D1, D4].

**Networked Memory:** PERL inventor Larry and Gloria Wall together are “a happy example of what psychologists call transactive memory. In the middle of a story, Larry will pause to ask Gloria, ‘How did I feel about so-and-so?’ ‘You liked him!’ she’ll reply with characteristic ebullience. There’s a network interface built right into the core of Larry’s thought processes.” [Steve Silberman, “Scripting on the Lido Deck,” *Wired*, Oct 00: p. 152].

---

#### From INSNA to NASCAR

Not only did I get to go backstage for the Toronto Molson Indy July 2000 with Pam Popielarz (Yay for fellow network gearheads with crew chief brothers). David Rosenfeld (RAND) has written an article "Social Science at 190 MPH on NASCAR's Biggest Superspeedways" that uses social network analysis in general and cites Wellman-Berkowitz *Social Structures* in particular. It's in *First Monday*, a refereed online cybersociety journal, 5, 2 (Feb 7 2000). Here's the abstract:

"In aerodynamically intense stock-car races like the Daytona 500, the drivers form into multi-car draft lines to gain extra speed. A driver who does not enter a draft line (slipstream) will lose. Once in a line, a driver must attract a drafting partner in order to break out and try to get further ahead. Thus the effort to win leads to ever-shifting patterns of cooperation and competition among rivals. This provides a curious laboratory for several social science theories: (1) complexity theory, since the racers self-organize into structures that oscillate between order and chaos; (2) social network analysis, since draft lines are line networks whose organization depends on a driver's social capital as well as his human capital; and (3) game theory, since racers face a "prisoner's dilemma" in seeking drafting partners who will not defect and leave them stranded. Perhaps draft lines and related "bump and run" tactics amount to a little-recognized dynamic of everyday life, including in structures evolving on the Internet."

The URL is: [www.msrl-racing.com/Super\\_Speedway\\_Series/190\\_MPH\\_on\\_Superspeedways.htm](http://www.msrl-racing.com/Super_Speedway_Series/190_MPH_on_Superspeedways.htm)

This is also true for bike racing. Consider not only the same-team support and break-aways, but the intimate relationship reported by Lance

Armstrong and Marco Pantini July 12, 2000 towards the end of their epic Tour de France climb up Mont Ventoux. Details at: [news.excite.com/news/r/000713/11/sports-cycling-tour-dc](http://news.excite.com/news/r/000713/11/sports-cycling-tour-dc). Pantini reciprocated on July 16, joining with Armstrong to minimize wind drag (*Toronto Star* 17July00: E10). However, the uninstitutionalized exchange was unstable, with Pantini denouncing Armstrong a few days later, reportedly piqued that Armstrong had so obviously “let” him win the July 12 stage.

---

### Movie Magic

***Could The Titanic Be Marx’s Revenge?*** Harvard Soc Rel vets of the 1960s fondly remember Mike Schwartz’s wonderful guides to old movies. While such guides are common now and the movies are often available on videotapes, they were rare in the 1960s except on late-night TV and the Brattle Theater. Mike was the 1<sup>st</sup> person I knew of to take them seriously. (Yes, there was intelligent life before Leno/Letterman). Mike has kept his passion up. In addition to being a leading Soc prof at SUNY-Stony Brook (remember Mintz & Schwartz on corporate interlocks?), Mike and 2 other sociologists founded Market-Cast, a market research company that uses sophisticated modeling techniques to design and evaluate marketing campaigns for feature films. The company grew to be the 2<sup>nd</sup> largest in the business, and was bought 1/00 by *Variety* (the folks who publish the trade newspaper by that name.) Mike is on the 1<sup>st</sup> year of a 3-year leave of absence, working with the company.

***Strange Recreational Habits of Sociologist:*** I put out on SocNet the excitement of seeing “Cannibal Women in the Avocado Jungle of Death” starring a Stanford-ish anthropologist (*Maude*’s one-time daughter Adrienne Barbeau in 1 of the worst movies ever made). Also starring Bill Maher and Shannon Tweed. A Princeton sociologist (whose name I withhold) then told me that “Splatter University” is “to my knowledge the only movie that features a sociologist as its protagonist.... The scenes in which she lectures her classes are priceless, and the conclusion, while unfortunate and saddening, will ring peculiarly true at an allegorical level to many academic-sociologist viewers.” As *E! Online*

notes, “Student bodies start piling up, victims of a psycho slasher, some to question why they are attending a college called “Splatter University” Stars Francine Forbes, Ric Randig, Cathy Lacomare R-Rated, 1984.

If you type “slasher, university, sociologist, movie” into the Google search engine, *Pierre Bourdeau* comes up in the first item. At least on Nov 5, 2000, 1830 EST.

---

### Networked Life

***Networking Albie:*** Toronto sociologist Tony Calabrese writes to the SocNet list (2June00), “Is it possible that *Time* magazine’s man [surely he means “person” in these PC times] of the millennium is actually a forgotten exponent of a network view of society? “ In “Why Socialism” (1<sup>st</sup> issue of *Monthly Review*, 5/49), Albie writes [also un-PC]:

“Man is, at 1 and the same time, a solitary being and a social being.... As a social being, he seeks to gain the recognition and affection of his fellow human beings, to share in their pleasures, to comfort them in their sorrows, and to improve their conditions of life.... The abstract concept ‘society’ means to the individual human being the sum total of his direct and indirect relations to his contemporaries and to all the people of earlier generations.”

Calabrese notes that this approach makes an argument similar to Charles Tilly’s argument that thinking of society as a thing apart is a “pernicious postulate.” [In *CT’s Big Structures, Large Processes, Huge Comparisons* (1984).]

***Quantum Mechanics, Quantum Networks, Quantum Computers:*** “Classical computers work on classical logic and can be viewed as an embodiment of classical physics. Quantum computers, on the other hand, are based on the superpositional logic of quantum mechanics, which is an entirely different paradigm. Conventional explanation sees consciousness arising as an emergent property of the classical computations taking place in the circuits of the brain, but this does not address the question of how thoughts and feelings arise. If brains perform quantum processing, this might be the secret behind consciousness.” [Hayn Hirsh, *Comp Sci*,

Rutgers, "A Quantum Leap for AI," *IEEE Intelligent Systems*, 7/99: 9].

**Remembrance of Networks Past:** Einstein wasn't the only one working to incorporate long-ago ties into contemporary networks. André Gide's *The Counterfeiters* (1926) "reads like a dark metaphysical riff on the more benign Proustian discovery that social life disperses the self among other people – that it is only thru the courtesy of friends and gossips that we somehow exist at all." [Anthony Lane, "The Man in the Mirror," *New Yorker* 75 (22), Aug 9, 1999, p. 77.]

**Networking Alone:** "Individualism is a calm and considered feeling which disposes each citizen to isolate himself [another non-PC] from the mass of his fellows and withdraw into the circle of family and friends; with this little society formed to his taste; he gladly leaves the greater society to look after itself." [Alexis de Tocqueville, *Democracy in America*, 1833, quoted in Peter Ward, *A History of Domestic Space*, Vancouver: UBC Press, 1999].

**The New Migration:** Having finished his PhD thesis at Soc, UCLA, **Michael Francis Johnson** visited China to do a feasibility study for his next research project on the role of social networks in funneling young rural migrant women into the commercial sex industry. [BW: Watching *Sex and the City* on US TV, it seems like networks are highly active for assortive coupling on this side of the Pacific as well. Those of you who missed the network size episode 9/00 failed to learn that "Miranda" has had 42 recent lovers – clearly a Laumannian-Morrisite heroine.] Am I right in recalling that "42" was also the answer to the key Q in the Hitchhiker's Guide to the Universe: "what is the meaning of life?"]

---

### Corporate Links

**Mentoring Manager** is the job title in this help-wanted ad in the *NY Times*, 15Dec99. "Our client – a market leading high-growth e-commerce business ... seeks professionals to train its clients in the use of its proprietary business knowledge system." The position entails "developing and tailoring mentoring programs...."

### Corporate Secrets:

It's not  
who you know.  
It's what  
who you know  
knows.

[Full-page ad in *NY Times*, 5Oct00: C28 by the "Well Connected Company, Morgan Stanley Dean Witter" (stockbrokerage and investment bankers).] Thanks to Stan Wasserman for knowing this.

**Networking as Corporate Process:** "The commanding heights of business have come alive to the power of networking as a pervasive way of doing business," says Richard Roscitt, prexy of ATT's Business Services group. The Internet is pumping "the lifeblood of the organization. The stakes are much higher." [Fred Andrews, "It's Not the Product That's Different, It's the Process." *NY Times*, 15Dec99: C14].

**How is London Like Nashville?** Peter McDermott, marketing director for *Invest UK* (a government agency that promotes foreign investment) says corporations choose Britain as a Euro base because of logistics and transport: "From Heathrow airport, you can get to 90% of the world's [GDP] on direct flights." *Toronto Globe and Mail*, 7Jul00]. Still haven't figured out how London is like Nashville? *Hint 1:* Path length; *Hint 2:* Fedex. But there's also *Fallacy 1:* Britain isn't London; *Fallacy 2:* British (especially London) traffic is somewhat more difficult than Nashville's.

**Exploiting Structural Holes in Football:** David Winner argues in *Brilliant Orange* that Dutch football [soccer to North Americans] works best by exploiting structural holes. "Rather than sticking to their allotted places, like their peers from other more boring countries (e.g., Germany), the Dutch drift around the field looking for space (if they have the ball) or trying to destroy it (if their opponents do). And in forming these pretty sporting patterns, they say a great deal about their own country's art, history and geography.... The arrival of total football [in the 1960s] coincided with Amsterdam's transfor-

mation from being one of Europe's most boring cities to a dope-smoking capital of free love." [from *The Economist's* review, 24June00: 97].  
**BW:** Yes, but what if Johan Cruyff had been born in Belgium? And why the semi-final, goal-less loss to the hyper-defensive Italians in the 2000 Eurocup?

**Cuba Si, Tourism Better:** Many of us had an early political economic intro. to networks in US foreign policy via ex-agent **Phil Agee's** book, *Inside the Company: CIA Diary* (NY: Stonehill, 1975). Agee's been in exile for many years, in bad US apparat graces for revealing the names of agents. He's now developed a web-site to market packaged tours to Cuba, [www.cubalinda.com](http://www.cubalinda.com). His niche market: embargo-busing American vacationers. Agee says the site aims "to create a fund to promote projects that bring Cubans and Americans together." He uses his CIA skills in his new job: "We get out there and get to know the people [involved with] the various activities that we are promoting, such as skydiving ..." He dreams of showing Cuba to one of his most ardent enemies, former prexy & CIA chief, George (non-W) Bush. [David Wallis, "Agee's New Company," *Financial Post (Toronto)*, 1Sept00: C3]

---

### Computer Networks <=> Social Networks

**Missing Links:** Franck Jeannin, CEO of UK-based *Link-Guard*, estimates that there has been a major rise in broken links between internet sites. He estimates that in 1998, 5% of all links were broken, 7% in 1999, and 10% "now". Of course, [www.linkguard.com](http://www.linkguard.com)'s business is monitoring web sites for broken links and notifying subscribers. [Jake Kirchner, "Big Numbers, Big Times." *PC Magazine*, July 2000: 89].

**Networking as Internet-Utopian Corporate Faith:** "Relationship, along with service, is at the heart of what supports all sorts of other modern, though more anonymous 'knowledge workers.' Doctors are economically protected by a relationship with their patients, architects with their clients, executives with their stockholders. In general, if you substitute 'relationship' for 'property,' you begin to understand why a digitized information economy can work in the absence of

enforceable property law. Cyberspace is *unreal* estate. Relationships are its geology." (P. 242). "The more connected we become, the more obvious it is that we're all in this together. If I don't pay for the light of your creation, it goes out and the place gets dimmer. If no one pays, we're all in the dark. On the Net, what goes around comes around. What has been an ideal becomes a sensible business practice." (P. 252).  
 Electronic Freedom Frontier founder **John Perry Barlow** on why Napster-like appropriation of Intellectual Property will fail. ["The Next Economy of Ideas: Will Copyright Survive the Napster Bomb? Nope, but Creativity Will." *Wired* Oct00]  
**BW:** I've only seen 1 potential *Napster* user stopped by the fact that using the program avoids paying for the IP. (I confess, too.). The people I deal with don't see *Napster* as a moral issue. They just use it because it is free and handy. My belief is that because the IP is intangible, as opposed to a book or a CD, taking it isn't seen as a crime.

**Gnutella, The Next Step After Napster:** *Gnutella* does away with the central directory server of *Napster*, to allow people to share files directly with each other. Peer-based searches for files go thru snowball networks of linked computers. The program was developed as an AOL rogue operation, since shut down, but is now widely-available. It is not yet clear if peer-based searches will be effective and accepted. For schematics of how they work see *Wired*, Oct00: 236-37.

**The Danger of Asymmetry:** Another problem with file trading is that it's asymmetric: For example, a few people have large music libraries. Most others, just download from them rather than truly sharing. "Thus, network costs and responsibilities fall disproportionately on those who do offer files." In a startup software company, *Mojo Nation*, traders earn currency ("mojo"): the more you offer, the more you can download. Details in: [www.salon.com/tech/view/2000/10/09/mojo\\_nation/index.html](http://www.salon.com/tech/view/2000/10/09/mojo_nation/index.html)

**Sherpa Ears:** This small Nashville-oriented dot.com approached Lin Freeman, Mark Granovetter, myself, and virtual-community guru Howard Rheingold to be on its Board of Technical Advisors. The idea was to use social

network techniques to link music creators and their audience, involving friends of friends. It was an interesting anthropological experience to deal with dot-comers, but unfortunately they found it a frustrating experience to deal with venture capitalists. The company is closed although the site is still up ([www.sherpaeers.com](http://www.sherpaeers.com)).

---

### Degrees of Separation – and Linkage

**The Original Play:** “I read somewhere [*BW: Stan Milgram!*] that everybody on this planet is separated by only six other people. Six degrees of separation. Between us and everybody else on this planet. The president of the Untied States. A gondolier in Venice. Fill in the names. I find that [A] tremendously comforting that we’re so close and [B] like Chinese water torture that we’re so close. Because you have to find the right six people to make the connection. It’s not just big names. It’s anyone. A native in a rain forest. A Tierra del Fuegan. An Eskimo. I am bound to everyone on this planet by a trail of six people. It’s a profound thought. How Paul found us. How to find the man whose son he pretends to be. Or perhaps *is* his son, although I doubt it. How every person is a new door, opening up into other worlds. Six degrees of separation between me and everyone else on this planet. But to find the right six people.” [“Ouisa” to the audience, *Six Degrees of Separation*, John Guare, playwright (1990). This from the Vintage Press 2<sup>nd</sup> ed., 1994, p. 81].

**Not Kevin Bacon:** The most connected actor of all time is Rod Steiger, according to Malcolm Gladwell’s *The Tipping Point* (Little Brown, 2000) – the book that also brought Mark Granovetter to the masses. But I digress. When links are defined as movies in which 2 actors have appear, the average actor is 2.887 [5Nov00] steps from the legendary Kevin Bacon. Gladwell says the reason for Steiger’s success is his range: 38 dramas, 12 crime pix, 12 comedies, 8 action flicks, 7 Westerns, 6 war movies, 4 documentaries, 3 horror films, 2 sci-fi’s, 1 musical. “He has managed to move up and down and back and forth among all the different worlds and subcultures and niches and levels that the acting profession has to offer.” [From the *San Francisco Chronicle*, 23Mar00: C18]

Gladwell cites a Univ of Virginia study which you can browse at: [www.cs.virginia.edu/oracle/](http://www.cs.virginia.edu/oracle/). When I asked for help on SocNet about finding the movie network site, John Roberts wrote, “this study is described at length in Duncan Watts’ *Small Worlds*”. He, and Danyel Fischer, Alexandra Marin, Bob Putnam, and Edward Vielmetti, and Caroline Haythornthwaite pointed me to the web site and the unreferenced statements on pp. 47-48 of Gladwell’s book. [Fisher was first, which is only fitting being he is a Berkeley computer science student who spends more time fingering a keyboard than not, but on a senior-handicapped basis, Putnam is impressive.] Mark Ryan supplied the actual p. 47 quote from Gladwell: “Recently, a computer scientist at the University of Virginia by the name of Brett Tjaden actually sat down and figured out what the average Bacon number is for the quarter million or so actors and actresses who have played in television films or major motion pictures and came up with 2.8312 steps.”

For scholarly follow-up, Mark Newman provided some recent references:

D. J. Watts and S. H. Strogatz, “Collective dynamics of small-world networks,” *Nature* 393, 440-442 (1998).

L. A. N. Amaral, A. Scala, M. Barthelemy, and H. E. Stanley, “Classes of small-world networks,” *Proceedings of the National Academy of Sciences* 97, 11149-11152 (2000).

**Epidemic Networks:** Gladwell says in a *Tipping Point* press release that he thinks of life as an epidemic, where little changes can make a big difference. He got the idea from covering the AIDS epidemic for the *Washington Post*. “I’m convinced that ideas and behaviors and new products move through a population very much like a disease does... I’m talking about a very literal analogy.... A meme is a idea that behaves like a virus.... No one ever tries to define exactly what they are, and what makes a meme so contagious.... There’s a whole section of the book devoted to explaining the phenomenon of word of mouth,... something created by 3 very rare and special psychological types, whom I call Connectors, Mavens, and Salesmen.” [[www.gladwell.com/books2.html](http://www.gladwell.com/books2.html); 4Jan00].

***The Man Who Loved Only Numbers*** is a nice book about Paul Erdős, the world's most prolific, peripatetic, and collaborating scholar. [Written by Paul Hoffman, published by Little Brown.] (I have an Erdős number of 3 via Ove Frank.) Here are some neat things from the book:

"A mathematician is a machine for turning coffee into theorems." Erdős. (P. 7) Erdős was a coffee and amphetamine addict, who definitely would have been barred from the Olympics.

"He existed on a web of trust." Collaborator Aaron Meyrowitz about Erdős (P. 9).

"Budapest cafes were "hothouses... of illicit trading, adultery, puns, gossip and poetry, the meeting places for the intellectuals and those opposed to oppression." From a Hungarian journalist. (P. 105).

---

### Short Schticks

***Networked Millionaires:*** My cousin Lloyd has a friend who is gearing up to go on the "Who Wants to be a Millionaire?" quiz show. In this show, you are allowed to call a friend for help with a key answer. The friend he'll call will have mobile phones open to a dozen other friends, all sitting at their computers connected to various reference sources. With luck, one will come up with the answer. I guess it beats 1,000 monkeys.

***In the Wake of the Hoof:*** "Learning to ride on horseback had drastic consequences for Indian communities that accepted the new animals and embraced a nomadic way of life built around hunting bison all year round. At least some Indians soon came to recognize costs as well as gains for according to Cheyenne tradition, when neighboring Comanches first offered horses to the tribe, a priest consulted their chief god, and reported back: 'If you have horses everything will be change for you forever. You will have to move around a lot to find pasture for your horses. You will have to give up gardening and live by hunting and gathering.... And you will have to come

out of your earth houses and live in tents.... You will have fights with other tribes, who will want your pasture land or the places where you hunt. You will have to have real soldiers, who can protect the people. Think, before you decide.'" [Quoted in Andrew Isenberg, *The Destruction of the Bison*, Cambridge Univ Pr, 1999, by William H McNeill, "Goodbye to the Bison," *New York Review of Books*, 27Apr00: 23].

***The Writer's Block Calendar*** is published by the University of Victoria English Dept's Kim Blank and Michael Cullen. (That's in Victoria, British Columbia, Canada). Here are some thoughts for the day from a recent version [Source: University Affairs, 12/00: 7]

"A bunch of little words in a row often means some can go"

"When you edit your work, pretend it was written by someone you don't like."

"If things happen on a daily basis', it means they happen daily"

***Ron Burt's Sources Revealed:*** Did the wise ones in ancient China understand structural holes? From the Tao Te Ching, # 11

Thirty spokes join together in the hub.

It is because of what is not there that the wheel is useful.

Clay is formed into a vessel.

It is because of its emptiness that the vessel is useful.

Cut doors and windows to make a room.

It is because of its emptiness that the room is useful.

Therefore, what is present is used for profit.

But it is in absence that there is usefulness.

[Source: Valdis Krebs' email to SocNet, 18Dec 00]  
Translation by Charles Muller. [www.human.toyogakuen-u.ac.jp/~acmuller/contao/laotzu.htm](http://www.human.toyogakuen-u.ac.jp/~acmuller/contao/laotzu.htm)





July 19, 2000

Royal Hotel, Durban

Inside, suited scientists seminar,  
 discuss, network, and decry  
 the spread of HIV across the globe  
 and the stalling of prevention against it,  
 and nightly journey to gorge fish or curries,  
 riding certified cabs through streets emptied by fear.  
 In the daytime, nearby streets teem with stalls  
 replete with spices, cloth, and carrying bags,  
 and with brothers and sisters, hands outstretched at ages from thee to ten,  
 asking money, food, or a trinket to sell.

As I walk these markets, my mind repeats two litanies:

One out of three, and one out of two,  
 one out of three, and one out of two,  
 one out of three, and one out of two,

and scanning the faces of the traders,  
 I cannot tell, cannot descry,  
 which are the third housing the virus,  
 the third destined to die in five years or ten,  
 flesh flushed away, lungs gasping, life gone;  
 nor can I nor anyone foretell which of the kids,  
 among those of the outstretched hands  
 or of those helping parents in stalls,  
 will be in the half forecast for the virus  
 and which will be in the half who strive to survive,  
 perhaps even to have lives,  
 in a land of beauty transformed  
 to a nation of funerals,  
 famine,  
 collapse.

Sam Friedman

# Civic Community, Political Participation and Political Trust of Ethnic Groups<sup>1</sup>

Meindert Fennema<sup>2</sup> and Jean Tillie

*Department of Politics, Institute for Migration and Ethnic Studies  
Universiteit van Amsterdam*

*We hope in this article to bridge the gap between all those researchers who in the trail of Almond and Verba (1963) have investigated the relationship between civic culture and political participation and those that are primarily interested in multicultural democracy. In earlier research we have found a correlation between political participation and political trust of ethnic minorities on the one hand and the network of ethnic associations on the other. (Fennema/Tillie, 1999) In this paper we treat the network of ethnic organizations a proxy for civic community. It is a long established assumption that voluntary associations create social trust, which, in turn can spill over into political trust. But if voluntary associations generate trust why would interlocking directorates among such organizations add to it? Our answer is that trust can travel through a network of interlocking directorates and by doing so increase. Civic community building is the creation of trust among organizations.*

*Bottom up, increased social trust may generate political trust because the citizens feel that their leaders are competent to monitor local government. The rank and file sees their leaders as their agents. Top down, interlocking directors can spread the political trust they themselves have within the ethnic community. By doing so, they act as an agent for the local government. In both cases the interlocking directors have an important broker function.*

*Finally we discuss whether this civic community is generated by factors that stem from the political opportunity structure in the host country or whether more weight should be given to those cultural factors that originate in the country of origin.*

“The role of social trust and cooperativeness as a component of civic culture cannot be over-emphasized. It is, in a sense, a generalized resource that keeps a democratic polity operating.”

*Gabriel A. Almond and Sidney Verba, 1965:357*

## INTRODUCTION<sup>3</sup>

The theory of multicultural democracy has been focused on the question whether ethnic minorities have a right to keep their own ethnic institutions and may legitimately defend their cultural identities. (Kukathas, 1992, Kymlicka, 1995, Kymlicka and Norman, 2000, Young, 1990) Are ethnic minorities entitled to a separate political existence within or outside the host countries' institutional

---

<sup>1</sup> An abridged version of this paper will be published in German: Hartmut Behr and Siegmund Schmidt (eds), forthcoming. *Multikulturelle Demokratien im Vergleich*. Opladen.

<sup>2</sup> Department of Political Science, Universiteit van Amsterdam, Oude Zijds Achterburgwal 237. *Email*: fennema@PSCW.UVA.NL

<sup>3</sup> We would like to thank the Netherlands Institute for Advanced Study in the Humanities and the Social Sciences (NIAS) that gave us a chance to finish this paper as part of a joint research plan that will hopefully result in a monographic study about Making Multicultural Democracy. We also want to thank Henk Flap, Ruud Koopmans, Susan Olzak and Andreas Wimmer for critical comments and stimulating discussions. This is a revision of a paper prepared for the Workshop 'Voluntary Associations, Social Capital and Interest Mediation: Forging the Link' ECPR Joint Session of Workshops, Copenhagen 14-19 April 2000-02-15. We are also in debt with the members of that workshop, especially with Marc Hooghe and Dietlind Stolle.

framework? And if so, under what conditions? The debate focuses on civil and political rights and on institutional structures. The theory is normative rather than empirically informed. It is about what states should do to migrants and what they should allow migrants to do. What migrants actually do within and without the political institutions of the host countries is assumed rather than investigated. The general assumption is that they do not participate enough and that this lack of participation is due to biases in the political opportunity structure of the host countries. In The Netherlands this debate has arrived with some delay (Penninx and Slijper, 1999; Slijper, 2000) and yet, the practise of multicultural democracy in The Netherlands is rather advanced. The Netherlands is one of the few countries where foreign residents have voting rights at the local level and the four largest ethnic minorities are proportionally represented in the municipal councils of the four big cities. In this paper we will account for the differences in political participation among these four ethnic minorities. We will focus on the political process rather than on institutional structures.

The development of multi-ethnic societies in Western Europe has also given rise to a heated debate about post-national citizenship (Soysal, 1994, Bauböck, 1994). In this debate it is assumed that massive immigration undermines the power and the legitimacy of the traditional nation-state. It has led to a substantial presence of so-called denizens (Hammar, 1985), foreign residents that have most but not all the social and civil rights that normal citizens have. These denizens are supposed to have less loyalty to the political institutions of their host country because they cannot fully participate and because they still consider themselves as nationals from another country. Increasingly they draw their civil rights claims from supranational sources especially the European Union legal framework. Again the debate on post-national citizenship is normative rather than empirically informed. The empirical deficiencies in these normative research traditions are now being amended by new lines of research set out by Koopmans and Statham (1999, 2000). This new research stems from social movement research (Kriesi et al. 1995) and focuses on claims making by immigrant groups. Koopmans and Statham found a substantial ethnic mobilisation at the national level, which proved to be influenced by the openness of the political opportunity structures. Our focus, like that of Koopmans and Statham, is on the democratic process rather than on democratic rights. We study ethnic group formation and political participation of ethnic minorities at the local level. Our research is empirical rather than normative. The only normative claim we make is that democracy is better than other forms of government and that political participation is good for democracy. First we report some findings on political participation and political trust of ethnic minorities in Amsterdam. After that we will try to provide a theoretical explanation for the different levels of political participation and political trust among ethnic groups.

### **The case of Amsterdam**

In 1985 voting rights in local elections were granted to foreign residents in the Netherlands. All parties, including those who could not expect to profit from the extension of the electorate, endorsed the constitutional reform. They were concerned with the lack of integration of ethnic minorities and hoped that political integration would spill over into other forms of integration. (Jacobs, 1998) In the 1986 local elections representation of migrants became an issue as the parties on the left actively searched for 'migrant candidates' (Cadat and Fennema, 1998). Immigrants massively voted and continued to vote for the left wing parties. (Tillie, 2000) Since then the number of municipal councillors that originate from migrant communities has risen sharply, especially in the big cities. By 1998, the four largest migrant communities, the Surinamese, Moroccans, Turks and Antilleans, were represented proportionally in the municipal councils of the four big cities. (Berger et al., 2000) The polls also showed a progressive turnout of migrant voters until 1994. However, in the 1998 elections turnout of all migrant groups declined, especially in Amsterdam. Nevertheless ethnic minorities in Amsterdam have still a relative high level of political participation when measured by other indicators (see Fennema and Tillie, 1999).

Ethnic groups vary in their degree of political participation and political trust.

Turks show a higher voter turnout at municipal elections, they also participate more in other forms of local politics, they have a greater trust in political parties and governmental institutions and they are more interested in local politics. All these indicators show a stable rank-order: Turks score highest, followed by Moroccans, Surinamese and Antilleans.

**Table 1**  
**Voting turnout at municipal elections in Amsterdam, 1994 and 1998**

| <i>Ethnic group</i>      | <i>Municipal elections</i> |      |
|--------------------------|----------------------------|------|
|                          | 1994                       | 1998 |
| Turks                    | 67%                        | 39%  |
| Moroccans                | 49%                        | 23%  |
| Surinamese/Antilleans    | 30%                        | 21%  |
| <i>Municipal turnout</i> | 57%                        | 46%  |

(Source: Tillie, 1998; Fennema and Tillie, 1999)

Table 1 shows how dramatically voting turnout in Amsterdam dropped from 1994 to 1998 for all categories of voters. Turnout among Moroccan voters more than halves, Turkish voting decreases nearly 40 percent and the Surinamese and Antillean vote decreases with 30 percent. This drop is substantially more than the overall decrease in voters' turnout. While Turks had in 1994 a higher turnout than all other groups, including the autochthonous citizens, this is no longer the case in 1998. Yet the rank order of ethnic voters remains the same: Turks vote more often than Moroccans and Moroccans vote more often than Surinamese and Antilleans. We find the same rank order when we look at other forms of political participation, such as visiting meeting where matters concerning the neighborhood are discussed, active lobbying with respect to neighborhood issues and participation in neighborhood councils. And when we look at political trust, that is trust in political parties, the municipal council and in the Amsterdam civil servants, the Turks score highest, followed by the Moroccans, the Surinamese and, finally, the Antilleans (table 2).

**Table 2**  
**Political trust in Amsterdam**

| <i>Ethnic group</i> | <i>High trust score</i> | <i>N (100%)</i> |
|---------------------|-------------------------|-----------------|
| Turks               | 64%                     | 109             |
| Moroccans           | 40%                     | 208             |
| Surinamese          | 39%                     | 297             |
| Antilleans          | 25%                     | 51              |
| [Dutch]             | 59%                     | 1595            |

(Source: Fennema and Tillie, 1999)

Turks show the highest degree of trust (compared to the other ethnic groups and also compared to the autochthonous population). Like in political participation, the Turks are followed by the Moroccans and Surinamese. Antilleans have the lowest degree of political trust. For more details we refer to Fennema and Tillie (1999).

We assume that the more the different ethnic groups vote and the more they trust the local political institutions the higher the quality of multicultural democracy. Multicultural democracy then is a democracy where ethnic minorities participate in the democratic process, thus providing the political elite with reliable information about the political preferences of the migrant population and the democratic institutions with popular legitimacy among the minority groups. In representative de-

mocracy elites play a central role in the articulation of political demands. (Manin, 1997) We assume that the possibilities for ethnic communities to present their preferences in the political arena depend at least partly on the integration of their ethnic leaders in the local power structure. In figure 1 we present a typology of political integration of ethnic groups based on the level of political participation of the members of the ethnic group and the degree of integration of the ethnic leaders in the local power structure. If both are high then we can call the ethnic group politically integrated. If the member of the ethnic group show a high degree of political participation but the ethnic elite is not integrated in the local power structure, we may call the ethnic group mobilized. If the elite of the ethnic group is well integrated but the rank and file does not participate we call the group pacified. Finally if the members of an ethnic group do not participate and the leaders of that group are not integrated into the power structure we call that group isolated.

**Figure 1**  
**Political participation and elite integration of ethnic minorities**

|  |      | Degree of integration of the ethnic elite |                  |
|--|------|---|------------------|
|  |      | High                                      | low              |
| Political participation<br>Of all members of the<br>Ethnic community | High | <i>Integrated</i>                         | <i>mobilized</i> |
|  | Low  | <i>pacified</i>                           | <i>isolated</i>  |

Turks in Amsterdam are best characterized as an integrated ethnic minority, while the Surinamese are more like a pacified ethnic minority. The Moroccans are somewhat in between, while the Antilleans are best characterized as an isolated ethnic minority (see Fennema et al., 2000).

Our results suggest that in Amsterdam multicultural democracy works better for Turks than for the other ethnic groups. Similar conclusions can be drawn for the Turks in Sweden. Turkish voter turnout has been consistently higher than ethnic voter turnout in general, since 1976. Only the Chilean and the German residents in Sweden show a higher voter turnout (Molina, 1999: 24). Research by Lise Togeby (1999) on electoral results in the two largest Danish cities has shown that in the local elections of 1998 in Århus Turks also had the highest voter turnout among ethnic minorities, but this was not the case in Copenhagen. In Århus, the voter turnout among Turks with (only) Turkish citizenship is higher than among Turks with Danish citizenship. In Copenhagen the voter turnout is highest among Turks with Danish citizenship. This seems to indicate that ethnic identity has a positive effect on political participation in Århus but not in Copenhagen. Ethnic culture as such – although apparently important – cannot fully explain the differences in voter turnout among ethnic groups. And the other way around: Turks contribute more to local democracy than other ethnic groups. In the remainder of this article we will present the theoretical argument why this is so.

### **Social trust and the structure of civic community**

In our study of ethnic groups in Amsterdam the concept of *civic community* is invoked to explain political participation and trust in political institutions. The concept of civic community refers to voluntary associations of free citizens that are set up to pursue a common goal or a common interest. These associations are supposed to generate social trust. Trust is defined here as good will among the members of an association which leads to risk taking in the decision to engage in interaction with other members of that association. (Cf Coleman, 1990: 91 ff) The concept of social capital refers to surplus capacity. Social capital allows x to do what she otherwise would not be able to do. X can either be an individual (x) or a group (X). According to Lin (1999: 35) social capital can be defined as “resources embedded in a social structure which are accessed and/or mobilized in purposive actions.” Flap (1999) has operationalized the concept of social capital in terms of network size, the nature of ties and the resources possessed by those in the network. All theorists of social capital seem to share the conviction that the concept consists of two related but analytically separable elements: structure and content. The structural element is often called association and is

referred to as  $x$ ' network or the network  $X$ . The content is referred to as trust and can be defined as an attitude of members towards  $x$  (often referred to as the *reputation* of  $x$ ) or the attitude of  $x$  towards all members of  $X$  (*generalized trust*). The concept of social capital can be visualized in a network consisting of points and lines of trust relation between these points. It therefore is redundant to speak of social capital in terms of social networks on the one hand and trust on the other, as if trust is an attribute of actors independent from the structure of the network. It is not. Trust is a relational concept that refers either to the network position of the individual in the group or to the network characteristics of the group as a whole. It takes at least two to trust. Trust is always embedded. Already in its earliest formulation, that of David Hume, the concept of trust is emphatically relational. "Your corn is ripe to-day; mine is ripe to-morrow. 'Tis profitable for us both, that I shou'd labour with you to-day, and that you shou'd aid me to-morrow." (Hume as cited in Putnam 2000) According to Hume there cannot be society without trust.

When we speak of a society, we assume that trust among members of that society – even between those that belong to different groups – should be higher than the trust between members and non-members of that society. In a fragmented society social trust will be higher within groups than between groups. Thus an ethnically divided society will have low levels of social trust at the national level, yet one may find high levels of social trust within the ethnic communities. It may therefore in an ethnically divided society be useful to look for civic community within ethnic group rather than at the level of society as a whole.

Since the acute observations of Alexis de Tocqueville we tend to believe that the quality of democratic governance resides in voluntary associations. "Thus the most democratic country in the world now is that in which men have in our time carried to the highest perfection the art of pursuing in common the objects of common desires...". Tocqueville then asked himself: "Is that just an accident, or is there really some necessary connection between associations and equality?" (Tocqueville, (1840) 1990: 275).

Indeed, what is it exactly that makes these associations so crucial for democracy? In the first place, so it seems, it is their *voluntary* character. As an alternative to loyalty, members of voluntary organizations have always the option of exit and that gives their voice a natural strength. Since each member can withdraw from it, the free will of the associates is the bottom line of the organization. Their support can never be taken for granted; the potential members must be 'seduced' to join. Forced co-operation can do the same trick, as is shown in aristocratic societies. But in such societies citizens are not free and independent. An elected government can also enforce co-operation for a common goal, but that would easily lead to democratic despotism. In both cases – in aristocratic societies and in centralised state-oriented democracies – vertical relations predominate, whereas in a society made of voluntary associations horizontal relations predominate. This brings us to the second aspect of voluntary associations: the importance of *horizontal* relations. Voluntary associations somehow have to treat their members as free and autonomous subjects and allow for horizontal relations. Horizontal relations make that that members of an association not only have the option of exit, but also that of voice. Through horizontal organization member can monitor their boards - even if these boards are not democratically elected. Disapproval of the leadership's policies can be aired and leadership is held accountable to the rank and file. The third element of voluntary associations that accounts for its political mobilisation potential is *trust*. Trust is needed to solve the collective action dilemma inherent in any purposive group. In all instances it is created and maintained because the members have mechanisms to monitor each other. Voluntary associations can be based on common interests, on shared values or on a common identity. If trust within associations is based on common interest only, we will call it calculated or strategic trust (Williamson, 1996: 272), if based on shared values we call it virtue and if it is based on a shared identity we call it loyalty. Ethnic associations are always based on a common identity, they may be also based on common interests (in the case of ethnic sporting clubs) or on shared values (in the case of political or religious associations). Civic virtues teach citizens to contribute to the common good even if such contribution would be detrimental to their short-term private interest. The virtuous citizen is well aware of the fact that a free rider strategy is ultimately self destructive because if all citizens refuse to contribute to the common good, collective goods are impossible to obtain. He is therefore willing

to contribute to the common good on the condition that others make the same sacrifices. In this case strategic trust and virtue overlap. Hence citizens in a civic community behave virtuous and see to it that other citizens behave virtuous as well.

Membership of voluntary associations, so the advocates of civic community maintain, breeds capacities that citizens need to do something about bad governance by engaging in a process of political mobilization. Thus, voluntary associations are a hotbed of civic engagement and social trust.

Stolle (1998) has recently challenged the assumption that associations create trust by demonstrating that, at least in Sweden, voluntary associations do not socialise its members into trusting citizens. "It is not true that the longer and the more one associates, the greater one's generalized trust" (Stolle, 1998: 521). It is the other way around: voluntary associations attract trusting citizens in a process of selective recruitment. Apparently, social trust cannot simply be 'produced' by associations and other civic institutions. Newton (1999: 172) also found but a weak relationship between membership of voluntary associations and social trust in established democracies. Yet Marc Hooghe (1999) has shown that such a relationship *does* exist if past membership of voluntary associations is taken into account. So even if we must conclude that in a synchronic model membership of voluntary associations do not generate trust, in a diachronic model it does. Voluntary associations have a socialising effect upon their members. They are indeed the cradle of civic engagement. Former members of voluntary associations tend to be more positively oriented towards their neighbourhood and tend to have a stronger sense of political efficacy and political trust. Hooghe's findings are in line with the conclusions that Robert Putnam (1993, 2000) has drawn for Italy and for the United States.

Sigrid Rossteutscher (2000), however, argues that voluntary associations may just as well foment a political culture that is anti-democratic and thus undermines democratic governance rather than supporting it. Referring to the nationalist associations at the turn of century in Germany she argues that voluntary association may very well amplify an authoritarian and nationalist political culture. Rossteutscher makes a point that is very relevant to the present study. Indeed, many ethnic associations in Amsterdam have a nationalist orientation and are not particularly favourable to democratic values. Why then should these associations contribute to the democratic process? The answer is twofold. First, as Rossteutscher herself argues, these associations may contribute to the democratic process if the environment is sufficiently civic. This is so because associations have a culture of deliberation. Almost by definition, members of associations debate amongst each other, which in turn tends to lead to increased levels of political interest. Secondly, if these associations operate in a democratic framework they will profit from accepting the 'rules of the game'. We can illustrate the point by referring to the internal struggle within the Turkish Islamic organizations between the old guard that rejects the political culture in The Netherlands and wants to stay away from Dutch politics and the younger generation that speaks fluently Dutch and advocates an active participation in local politics because that is conceived to be beneficial to the association's mission (Sunier, 1996). The same Milli Görüs that has been banned in Germany for its anti-democratic radicalism, participates actively and seemingly loyally in the Amsterdam democratic arena. Nothing adds more to a process of deradicalization than participation in democratic institutions. Maoists as well as fascists were well aware of that. Civic engagement is not in itself democratic but within democratic governance it tends to become so. Horizontal links tend to become stronger at the expense of the vertical ones.

In vertical networks the trust that is needed to collaborate for a common endeavour is not generalized but narrowly focused on the principal, be it the 'lord', the 'godfather' or the 'government'. This goes for all hierarchical organizations, including feudal communities, Communist Parties or the Mafia, where horizontal linkages are discouraged. The difference between a Mafia organization and a civic community is that in a civic community obligations are not personalized and the norms that guide behaviour tend to be universalistic rather than particularistic. Even an elected national government is 'sovereign', which means that it can enforce its will upon the citizens. The relationship between governments – even if elected – and its 'subjects' is essentially vertical. Once again, such vertical relationships may very well be based on trust, but trust in vertical relations is not based on



self-reliance and it is not generalized trust. Trust in government is, in other words, necessarily a vertical relationship as it is based on dependency rather than on equality. In a civic society citizens comply with collective rules out of conviction rather than out of personal loyalty or fear, and free riders are sanctioned by all citizens rather than only by the principal.

In hierarchical organizations personal trust can be very high if personal loyalties are strong and if the penalties for defection are heavy. In a civic community the sanctions for defection seem less severe and certainly less spectacular, partly because social trust is not vertically organized and not oriented towards a principal.

Generalized trust does not have to be reciprocal. One does not have to return the favour one has received from A back to A, one may also return it to B, C, D or E, on the condition that B, C, D, and E do the same thing. The wider the circle of actors that one can repay the favours received from one of them, the more social capital is invested in the group. Yet, even in a civic association there is a limit to the range of trust. As Flap (1999) says, there will be a discount rate to the present value of future help. If the chances for ego to be repaid for his present aid to B, C or E become lower, ego will be less inclined to help B, C, or E. Increasing the size of the association decreases the chances that ego will be repaid if communication within the group does not increase with the same speed. We know from network theory that the number of possible links among the members of a group increases by  $\frac{1}{2} n (n-1)$ . Thus, other things being equal, it seems more difficult to maintain trust in a large group than in a small one. But other factors also influence the creation and maintenance of social capital. If the social distance between the association and the rest of society is large, members are strongly dependent on the group because they cannot defect. Social trust, then, is dependent on the closure of social groups. The more ego is dependent on the group, the more important for ego is the reputation (s)he holds within the group and the higher the group's social control.

In our argument so far there is one missing link from associational life to civic community. Why should trust that has been built up in one voluntary association spill over to other organizations and to the public space? Why should members of voluntary associations more readily collaborate in a common endeavour which is not part of the mission of the association of which they are members and why should they be more likely to be self-confident in politics and trust the government? In other words, why should dedicated members of a church choir or a bowling club be good citizens?

There are two answers to this question. The first is that trust is related to civility and becomes a generalized attitude that is not restricted to the association where it originally developed. This answer stresses the cultural aspect of civil society. It is based on the assumption that the norms and values of a voluntary association have a civic core that has wider implications than the group in which such norms and values are embedded. Voluntary associations create civic virtues among its members and these virtues are transferred to a wider circle of associational activities that make up civil society. The second, institutionalist answer is that in a civic community voluntary associations communicate amongst each other through informal contacts and because their membership and boards overlap. Here the structural side of civil society is emphasized. Interlocking directorates among voluntary associations play a crucial role in the formation of civil society because they create permanent communication channels between different organizations. We would therefore expect a strong civic community to have many voluntary associations that are horizontally connected through interlocking directorates. Even though these horizontal relations in the form of interlocking board memberships exist only at the elite level, they form a crucial element in the formation of civic communities. Of course, interlocking directorates are also a form of social capital for the carriers of such interlocks. Ethnic leaders that sit on the board of many ethnic associations have more social capital than those who sit on the board of just one ethnic association.

We will focus in this paper on the institutional aspects of civil society. Only at the end we will come back to the cultural aspects. Organizations seem to us paramount to the building and maintenance of social trust. Indeed, the probability that each man – or woman – returns the favours that have been done to him in an indeterminate future will increase if he knows that he or she is being moni-

tored and that he can be sanctioned if he does not return the favours in due time. But trust cannot travel among organizations unless there are institutional links among these organizations. *Civic community building is the creation of trust among organizations.* In connected networks of voluntary associations norms and values can be maintained through the circulation of information that builds and destroys reputations of its members. Not just the power holders can collect evaluative information about each of the members but everybody can, because evaluative information circulates through newspapers and other mass media. In this sense even gossip builds social capital. (Witteck, 1999) The larger the amount of horizontal linkages, the more egalitarian is the community structure. The denser these horizontally connected networks are, the more effective the mechanism of reputation formation. These two assumptions taken together lead us to the hypothesis that horizontal networks are more effective to build and destroy reputations in a community than are hierarchical ones. This does not mean, of course, that such networks are more efficient in all respects. What it means is that they are better equipped to maintain social norms and social cohesion. If the social norms are focused upon co-operation then the community that is formed by a fully connected network with many horizontal ties has a lot of social capital. Social capital at the group level can be defined as the capacity of a group to produce collective goods and pursue common goals. (Coleman, 1990, Putnam, 1993, 2000, Fukuyama, 1995 and 1999). It is operationalized in this paper as the relative number of voluntary associations and the connectivity of the network of personal interlocks among these voluntary associations plus the level of trust in the community formed by this network of organizations.<sup>4</sup> In table 3 the summary results are presented. The first row gives the rank order for the number of voluntary organizations that were found in the files of the Chamber of Commerce. We considered this an indication of formalization of the civic community even though it does not exclude the possibility that some of these organization were no more than just 'paper organizations'. We find that Turks have the largest number of organizations, followed by Moroccans, Surinamese and Antilleans. The second row indicates the rank order according to the number of organizations that have no interlocks with any other ethnic organization (the lower the percentage of isolated organizations the higher the rank order). Here we find that the Moroccan community scores highest (that is has the lowest number of isolated organisations), followed by the Turkish community, the Surinamese and then the Antillean community. The third row gives the rank order according to the total number of interlocking directorates in the network. The final row is a civic community index based on the ranking in the first three rows. The lower the index the higher the civic community score.

**Table 3**  
**Organizational and network indicators of civic community**

| Ethnic group | (1)                      | (2)                    | (3)               | (4)             |
|--------------|--------------------------|------------------------|-------------------|-----------------|
|              | Organizations In network | Isolated organizations | No. of interlocks | Civic Community |
|              | N                        | as % of (1)            | N                 | Index           |
| Turks        | 89                       | 46                     | 62                | 4               |
| Moroccans    | 82                       | 39                     | 45                | 5               |
| Surinamese   | 70                       | 71                     | 12                | 9               |
| Antilleans   | 35                       | 80                     | 8                 | 16              |

(Source: calculated from Fennema and Tillie, 1999)

We found that Turks in Amsterdam have many voluntary associations and these associations are well connected through a network of interlocking directorates. The Turkish community in Amsterdam is the most 'civic' of all ethnic communities, followed by the Moroccans, the Surinamese and finally the Antilleans that show the smallest degree of civic community when measured in terms of

<sup>4</sup> Individual social capital, on the other hand, refers to the empowerment of actors because they are embedded in a social network and they have a certain reputation within that network. Individual social capital has been termed ego's 'second order resources' by Jeremy Boissevain (1974).

ethnic associations and their interlocking directorates. The differences in the strength of civic community become even more impressive when we also look at the use of ethnic newspapers and television (Table 4).

**Table 4**  
**Frequency reading 'ethnic newspapers'**

| <i>Ethnic group</i> | <i>Percentage regular readers</i> | <i>N (100%)</i> |
|---------------------|-----------------------------------|-----------------|
| Turks               | 51%                               | 109             |
| Moroccans           | 15%                               | 209             |
| Surinamese          | 4%                                | 297             |
| Antilleans          | -                                 | -               |

(source: Fennema and Tillie, 1999)

Turks have the best organizational means to solve their own problems, and are less in need for government support. Yet, their political participation and their trust in local politics is much higher than that of the other ethnic groups (table 1 and 2). This illustrates our theoretical point: those groups that are best equipped to provide for collective goods themselves by means of voluntary associations are also best equipped to monitor local government and confident that political institutions provide good governance.

An important element of our theoretical model is the relation between the ethnic community and the local polity. We will therefore focus on the external relations of the *leaders* of an ethnic community. We assume that the political impact of the social capital of the ethnic community largely depends on the relations of these ethnic leaders with the power structure of the multi-ethnic society. If the leaders of an ethnic group have many contacts with the dominant group this indicates a high level of social integration, if they have hardly any such contacts, the ethnic group is not integrated. The group is then either mobilised or isolated (see figure 1).

Table 5 presents the results of a survey among the political elites of the ethnic groups in four big cities in Holland. The figures are based on three questions where we asked to name five persons the respondent would consult in case of an important career decision (1), the choice of school for their children (2) and when looking for a new house (3). In each case we asked to indicate the ethnicity of the five advisors.

**Table 5**  
**Personal advisors of ethnic politicians within their own group, from the Dutch community and from within other ethnic groups**

|  | Turks | Moroccans | Surinamese |
|--|-------|-----------|------------|
| % personal advisors within own group         | 30    | 25        | 35         |
| % Dutch advisors                             | 45    | 33        | 30         |
| % personal advisors from other ethnic groups | 25    | 42        | 35         |

(Source: Fennema et.al.2000)

Turkish leaders have substantially more Dutch advisors than Moroccan and Surinamese leaders. Surinamese politicians have the smallest number of Dutch advisors. Turks, that have the strongest civic community, also have leaders that are best integrated in the Dutch elite structure. These results run counter to the general idea among experts in Holland, who assume that the Surinamese elites, because they share the language and some history with the Dutch, are better integrated in

Dutch society.<sup>5</sup> The stronger the ethnic community the better the ethnic elite seems integrated in the local community.

### **Multicultural democracy and ethnic identities**

We assume that social trust in ethnic communities will spill over into trust in local political institutions if community leaders are integrated in the political system. This may work bottom up as well as top down. Bottom up the political trust will increase when members of the ethnic community can monitor their ethnic leaders by way of the reputation ladder of these leaders in the community. The higher the level of participation of the members of an ethnic group in the ethnic associations and the higher the trust of the rank and file in the directors of these associations the higher the quality of multicultural democracy. We have not yet collected information on the trust that the rank and file of different ethnic groups in Amsterdam has in their own ethnic leaders, but we expect that the trust in their own ethnic leaders is highest among the Turks and lowest among the Antilleans. We do have an additional argument that is supported by previous research. Lelieveldt (2000) found that associations have very good access to the local government and he suggests that they have much better access than individuals. Furthermore he found a relation between network centrality of voluntary organizations and political participation. If this is true ethnic groups with many voluntary associations have better access to the local power structure than ethnic groups that lack such associations. This may increase the trust in political institutions among ethnic groups with a strong civic community.

Top down, political trust will increase if the leaders are able to 'spread' their trust in and their commitment to the political institutions through the network of interlocked ethnic associations. Those leaders that are big linkers themselves have more chance of doing so than leaders that lack this form of social capital. Of course, ethnic leaders will only do so, if they consider political institutions as efficient and fair. If the government has an open ear for the demands of ethnic groups this will also increase the political commitment of ethnic leaders to the political institutions. Good governance itself creates political trust among citizens (Levi, 1998, Rothstein, 1998), but it does so in a two-step flow of communication (Katz, 1957).

We assume that political participation is related to the social capital of the group because individual members can more easily get access to the political arena through the ethnic networks and because social trust increases the self-confidence and political efficacy of the individual members of the civic community. But why should this civic community have an ethnic identity? Why is it that the civil society in Amsterdam is organized along ethnic lines? According to Bo Rothstein social trust must be 'produced' by collective memories, that is, by specific constructions of the past that are sometimes deliberately created to forge a cohesive community. Essential parts of these collective memories are historical sites and traditions, which are more often than not 'invented traditions' (Hobsbawm, 1983, Galema et al., 1993). In the case of ethnic groups these traditions are derived from the national culture of the country of origin. Many authors have pointed out that this 'ethnic culture' is quite often a remake or even a caricature of the national culture, that ethnicity can be considered 'a myth' (Steinberg, 1989). Even an ethnic myth, however, can be very helpful to create social trust among the members of the ethnic group because it creates a shared identity. According to Weinstock (1999) there are causal relationships between loyalty (based on shared identity), strategic trust (concurrence of individual ends), virtuous trust (shared values) and unity of the group. We find these three dimensions of trust in all ethnic groups to some extent. Yet Turks score high on ethnic loyalty, virtuous trust and strategic trust. Their conception of nationhood is strong, their religion provides them with shared values while their political culture allows them to make strategic alliances. Turks tend to socialize much more with the members of their own ethnic group than with other ethnic groups.

---

<sup>5</sup>What it also shows is the high amount of intimate connections between the political elites from different ethnic background. Here Moroccan score highest: they have even more advisors from other ethnic groups than from their own ethnic community.

There is reason to believe the collective memory of Turks in Amsterdam has more elements that can bolster social trust than the collective memories of Surinamese and Antilleans. Earlier research has shown that the ethnic leaders are well aware of these differences. A Turkish member of the town council stated: "Surinamese people are never sure of themselves, they lack self-confidence." And with reference to the Turkish group: "We Turks are proud, and we have been raised proudly, because we have colonized other countries. This is also true for left-wing people. I have noticed that Turkish people are very self-confident, wherever they are." (Cadat and Fennema, 1998:107) Indeed, Turkish politicians use their ethnic culture as a shield against Dutch dominance: "They (*the Dutch*, MF/JT) know everything about them (*the Surinamese*, MF/JT), thus they can more easily dominate them than they can dominate us. We say 'We are Turks' and they have not a clue about our culture and our outlook." (Cadat and Fennema, 1998: 109) Surinamese do not show a lot of ethnic consciousness. A Surinamese politician expressed this by saying: "We have always been Dutch, except that we lived overseas" (Cadat and Fennema, 1998: 102). This difference in ethnic consciousness and the self-confidence that goes with it may partly explain the differences in ethnic organisation between the Turks and the Surinamese. Thus importance of collective memories and the content of such collective memories shape the civic community of ethnic groups and have an impact on the amount of social trust within these ethnic communities.

But even if all ethnic groups would have a high level of civic community and social trust, multi-ethnic societies are still likely to lack good governance because of the difficulty to form a well-connected *interethnic* civic community. Ethnic communities tend to be exclusive and therefore the binary connectivity between ethnic communities tends to be low. Even if this does not lead to ethnic strife, the lack of connectivity in civil society may cause low levels of trust. Lijphart (1968) has suggested that the lack of social trust between different communities that make up civil society can be made up for by elite-co-operation. If a polity consists of a number of disconnected civic communities, inter-elite strategic trust becomes all-important, as the Dutch example of consociationalism has shown. Critics of consociationalism have argued that this may lead to good governance, but not to democratic governance (Fennema, 1976; Huntington, 1981) Be it as it is, a fragmented civil society is better than no civil society at all. In such fragmented civil society the bridges that connect the otherwise isolated parts of the network become extraordinary important because it are the only routes along which the social trust can travel. The persons that form these bridges may strategically exploit this importance.

The Netherlands is a case in point. Religious segmentation has only in the twentieth century led to a system of pillarization (*Verzuiling*), in which each religious group formed voluntary associations of its own that were heavily interlocked at the elite level. The denominational civic communities thus formed were called 'pillars'. Subsequently, a system of denominational elite collaboration was established around 1917. The 1917 political compromise led up to state policies that favoured the creation of even more denominational associations. Arend Lijphart (1968) has coined the concept consociational democracy for such political accommodation through strategic trust among the denominational elites. Even though Lijphart himself has suggested that consociational democracy requires a certain passivity and deference of the rank and files, one might also argue that there cannot be a properly functioning consociational democracy without strong a civic community within each of the pillars. Indeed, the contemporary Dutch 'polder model', which is based on consensus by consultation, may well depend heavily on strong civic tradition that have been built up in the old consociational democracy. The specific mode of civic community building in the twentieth century was largely a result of a political compromise and a conscious effort of the Dutch state to support voluntary associations. The Netherlands might well be a perfect example of what is nowadays called associative democracy (Hirst, 1994, Vertovec, 1999).

Policies of civil society building have also been applied to the ethnic minorities in the Netherlands after WWII. Ethnic organizations have been subsidized from the 1960's onward and the maintenance of ethnic culture has not only been tolerated, but also actively promoted. This was not done to bolster local democracy. Rather, the government was accustomed to farm out subsidies to organizations that could maintain local community structure and organize social welfare among minority groups. Even voting rights for foreign residents, granted in 1985, were not given because of any

democratic impulse (Jacobs, 1998). Rather it was an – quite successful - attempt to integrate the different ethnic group into Dutch political arenas and to obtain a certain loyalty of these groups towards the political institutions at the local level. The development of ethnic communities was at least partly an unintended result of political opportunity structures and government policies that prevailed in The Netherlands until 1990.<sup>6</sup>

These ‘minority policies’ that were largely implemented by the municipalities seem to have had a positive impact on local democracy. Until 1994 voter turnout of the minority groups was surprisingly high. One third of the councillors now has an ethnic background. (Berger et al. 2000) Yet, the positive impact of minority policies on political participation and political trust among migrant groups in Amsterdam does not account for the large differences among the different ethnic groups. The stable hierarchy among the different groups in terms of civic community, political participation and political trust in which Turks have the lead, followed by Moroccans, then Surinamese and finally Antilleans, point in the direction of a culturalist explanation. It is very likely that at least part of the social capital of the different ethnic groups derives from the country of origin. The fact that Turkish organizations in Amsterdam are largely patterned along the lines of political and religious cleavages that exist in Turkey points in this direction. But there are other indications as well. Former research has shown that many migrant politicians come from families that were already involved in politics in the country of origin. Many of them even had been active themselves in political youth organizations. Before entering Amsterdam politics they had been active in ethnic organizations. (Cadat and Fennema, 1998: 101) Civic virtue and social capital seem to have migrated together with the ethnic groups. Furthermore, the migrant politicians themselves acknowledge the importance of political culture. As we have seen above, Turkish politicians – even those from left wing parties - maintained that they were able to cope better with ethnic discrimination than immigrants from the colonies because they considered themselves on par with the Dutch. They especially stressed the fact that Turkey has never been colonized. This shows that ethnic consciousness is not just a project of ‘invented traditions,’ it is anchored in all too real historical experience.

This would explain why Surinamese and Antilleans score consistently lower on the civic community index, why they participate less in Amsterdam politics and why they have less trust in the political institutions. We find comparable patterns of electoral turnout in Great Britain, where Indian voters have a higher turnout than white voters, while voters from Caribbean countries have a substantially lower turnout. (Saggar, 1998: 55) Here, as well as in The Netherlands, the explanation for the low participation of citizens from the Caribbean islands may be found in their history of colonisation and slavery.<sup>7</sup> In a multicultural society there are large differences in civic organization, political organization and political trust among ethnic groups that may well be explained by the history of the country of origin.

Such conclusion is, of course, difficult to digest for activist readers who are unwilling to wait for ages to see any improvement in democratic governance. Anti-racist activists and even some colleagues may suggest that such a conclusion is ‘blaming the victim’. It is certainly a conclusion that suits a more contemplative if not conservative view on human progress. But is the conclusion inevitable? Is there no way to improve the quality of civil society by policy measures? Would it not be possible that government-policy props up the horizontal structures of civil society thus increasing social trust and the development of civic virtues? Tocqueville would, most likely, have rejected such a possibility, because it would increase the power of government. We, however, are willing to consider the potential of (local) government to create civic community.

---

<sup>6</sup> After 1990 the Dutch minority policies came heavily under attack (see Fermin, 1997).

<sup>7</sup> It is striking to see how little attention is paid to these ethnic differences in voting behaviour. In a recent issue of the *Revue Européenne de Migration Internationales*, two contributions note these differences but refuse to reflect upon it. Andrew Geddes’ conclusion is typical: “African-Caribbean people are less likely to be found in formal, elected political institutions, but as already noted the utilisation of ethnic categories to explain this in terms of ‘integration’ and ‘alienation’ may neglect other socio-economic factors (...)” (Geddes 1998 : 45). A ‘culturalist’ explanation of political participation is within the realm of ethnic studies still ‘not done’.

## Preliminary conclusions and further research

The Amsterdam case study has so far clarified a number of points.

First, the initial opening of the political opportunity structures at the local level was initiated by the autochthonous political elites, including even those who could not reasonably expect to profit from it. They did so because they assumed that political integration would spur other forms of integration. Whether this is true or not, it did foster multicultural democracy. Granting voting rights to foreign residents triggered off a quest for migrant candidates among the political parties in Amsterdam and it legitimised to some extent the principle of group representation in the political arena. Secondly, ethnic organizations did not restrain political integration but seem to have generated it. Even ethnic organizations that did not adhere to democratic values have contributed to the democratic process. Ethnic communities become civic communities when they become involved in the democratic process.<sup>8</sup>

Thirdly, it seems plausible that cultural factors account for the different levels of political trust and political participation of the ethnic communities in Amsterdam.

Recently some political scientists have argued that it is *primarily* the political opportunity structures rather than cultural characteristics of migrants that determine political integration of ethnic minorities. This may be true when we look at all migrants in the same city and compare their degree of political participation with migrants in another city. To make this argument both Soysal (1994) and Ireland (1994) rely on international comparison. Their conclusions are, so far, not very convincing. First because they rely on rather descriptive case studies (in the case of Soysal taken from secondary sources) which does not allow for very rigorous comparison. Secondly, because the international comparison has to take account of so many variables that even a more rigorous empirical approach would encounter serious methodological problems. To solve these problems we will study political participation and political trust of three ethnic communities in Berlin (Turks, Jews and Italians) according to the same research design that was applied in Amsterdam. The two cities differ substantially in the political opportunity structure. In Berlin, most immigrants have not been allowed to vote at the local elections. Berlin never had a strong tradition of consociational democracy. Finally, in Berlin the different ethnic groups were not able to profit from minority policies comparable to that in Amsterdam. In Brussels we find Turks as well as Moroccan residents. Yet in Brussels many of them group are not able to vote nor do these groups seem to benefit from government policies comparable to those in The Netherlands. The ethnic minorities in Brussels may well benefit, however, from consociational institutions that are in Belgium very strong.

We have to see how the Turkish communities in Berlin and Brussels fared under such different circumstances. If an open political opportunity structure induces political participation we would expect the Turks in Berlin and Brussels have a dramatically lower level of political participation and far less trust in local politics than the Turks in Amsterdam. If political opportunity structures are all pervasive and if minority policies stimulates civic community building among ethnic groups, we would find the weakest civic community among the Turks in Berlin, a somewhat stronger civic community among Turks in Brussels and the strongest civic community among the Turks in Amsterdam.

If, on the other hand, ethnic culture is the principle determinant of ethnic community building we would expect the Turks in Berlin and in Brussels to be organized in the same way as the Turks in Amsterdam even though they may well score lower on political participation and political trust. We then expect to find exactly the same rank order in political participation and political trust among the different ethnic groups in Brussels as we have found in Amsterdam.

---

<sup>8</sup>Political integration does not necessarily correspond with other forms of integration. Whereas the Turks in Amsterdam are well integrated in the political arena, they are far less integrated in the labour market and in the educational system. The Surinamese, on the other hand seem well on their way to integrate in the labour market, but they lag behind in the political arena.

Another point that still needs further research is the way in which citizenship plays a role in the political integration at the local level. Our research in Amsterdam shows that Turks are better integrated in the local political arena than Surinamese and Antilleans. Nevertheless most members of the latter groups have a Dutch passport and problems of dual citizenship hardly play a role. Their transnational orientation seems relatively restricted. Turks, on the other hand, tend to be in a situation where dual citizenship and transnational politics may play a role. Yet, they are far better integrated into the local power structure than the immigrants from the (former) colonies. We therefore suggest that for ethnic minorities political integration at the local level and a transnational orientation may not be mutually exclusive. Soysal (1994) makes the same point, but her research does not provide us with much empirical detail about transnational ethnic politics. So far, very little research has been done on transnational politics of ethnic groups. As long as this remains the case, the conundrum of modern diasporas and post-national citizenship is thin air.

## REFERENCES

- Almond, G.A. and Verba, S. (1963). *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Princeton, NJ: Princeton University Press.
- Berger, M., Fennema, M., van Heelsum, A., Tillie, J., and Wolff, R. (2000). *Politieke participatie van etnische minderheden*. Den Haag: Ministerie van Binnenlandse Zaken en Koninkrijksrelaties.
- Bauböck, R. (1994). *Transnational Citizenship: Membership and Rights in Transnational Migration*. Aldershot: Edward Elgar.
- Boissevain, J. (1974). *Friends of Friends. Networks, Manipulators and Coalitions*. Oxford: Basil Blackwell.
- Cadat, B.Y. and Fennema, M. (1998). Les hommes politiques issus de l'immigration à Amsterdam: image de soi, image des autres. *Revue Européenne des Migrations Internationales*, 14(2), 97-121.
- Coleman, James. (1990). *Foundations of Social Theory*. Cambridge MA: Harvard University Press.
- Fennema, Meindert (1976). Professor Lijphart en de Nederlandse politiek. *Acta Politica*, 11(1), 54-77.
- Fennema, M. and Tillie, J. (1999). Political participation and political trust in Amsterdam. Civic communities and ethnic networks. *Journal of Ethnic and Migration Studies*, 25( 4), 703-726.
- Fennema, M., Tillie, J., van Heelsum, A., Berger, M., and Wolff, R. (2000). *Politieke participatie van etnische minderheden*. IMES/BiZa, Amsterdam.
- Fermin, A. (1997). *Nederlandse politieke partijen over het minderhedenbeleid. 1977-1995*, Thesis Publishers, Amsterdam.
- Flap, H. (1999). Creation and returns of social capital. *Le Revue Tocqueville*, 20(1), 1-22.
- Fukuyama, F. (1995). *Trust. The social virtues and the creation of prosperity*. London.



- Fukuyama, F. (1999). *The Great Disruption. Human Nature and the Reconstruction of Social Order*. London: Profile Books.
- Galema, Annemieke, Barbara Henkes and Henk te Velde, 1993. *Images of the Nation. Different Meanings of Dutchness 1870-1940*. Amsterdam: Rodopi.
- Geddes, A. (1998). Race Related Political Participation and Representation in the UK. *Revue Européenne de Migrations Internationales*, 14(2), 33-49.
- Hammar, T. (1985). *European Immigration Policy*. Cambridge: Cambridge University Press.
- Hirst, P. (1994). *Associative Democracy*. Cambridge: Polity Press.
- Hungtington, S. (1981). Reform and stability in a Modernizing, Multi-ethnic Society. *Politikon*, 8(2), 8-26.
- Ireland, P. (1994). *The Policy Challenge of Ethnic Diversity: Immigrant Politics in France and Switzerland*. Cambridge Mass.: Harvard University Press.
- Jacobs, D. (1998). *Nieuwkomers in de Politiek. Het Parlementaire debat omtrent kiesrecht voor vreemdelingen in Nederland en België*. Gent: Academia Press.
- Katz, E. (1957). The Two-Step Flow of Communication: An Up-To-Date Report on a Hypothesis. *Public Opinion Quarterly*, 21, 62-78.
- Koopmans, R. and Statham, P. (1999). Challenging the Liberal Nation-State? Postnationalism, Multiculturalism, and the Collective Claims Making of Migrants and Ethnic Minorities in Britain and Germany. *American Journal of Sociology*, 105, 652-696.
- Koopmans R. and Statham, P. (Eds.) (2000). *Challenging Immigration and Ethnic Relations Politics. Comparative European Perspectives*. Oxford : Oxford University Press.
- Kriesi, H., Koopmans, R., Duyvendak, J.W., and Giugni, M. (1995). *Social Movements in Western Europe*. Minneapolis: Minnesota Press.
- Kukathas, C. (1992). Are there any cultural rights? *Political Theory*, 20, 105-139.
- Kymlicka, W. (1995). *Multicultural Citizenship. A liberal theory of Minority Rights*. Oxford: Oxford University Press.
- Kymlicka, W. and Norman, W. (Eds.) (2000). *Citizenship in Diverse Societies*. Oxford: Oxford University Press.
- Levi, M. (1998). A State of Trust. In: V. Braithwaite and M. Levi (eds.) *Trust and Governance*. New York: Russell Sage Foundation.
- Lin, N. (1999). Building a Network Theory of Social Capital. *Connections*, 22(1), 28-51.
- Lijphart, A. (1968). *The Politics of Accomodation*. Berkeley: University of California Press.
- Manin, B. (1997). *Principles of Representative Government*. Cambridge: Cambridge University Press.
- Molina, I. (1999). City Template Stockholm. Paper present at the second conference of the MPMC program 31 October to 2 November 1999 in Liege.
- Penninx, R., and Slijper, B. (1999). *Voor elkaar*. Amsterdam: IMES
- Putnam, R.D. (1993). *Making democracy work. Civic traditions in modern Italy*. Princeton: Princeton University Press
- Putnam, R.D. (2000). *Bowling Alone. The Collapse and Revival of American Community*. New York etc.: Simon and Schuster.

- Rothstein, B. (1999). *Trust, social dilemmas, and the strategic construction of collective memories*. Russell Sage Foundation, Working Paper 142.
- Saggar, S. (1998). British South Asian Elites and Political Participation: Testing the Cultural Thesis. *Revue Européenne de Migrations Internationales*, 14(2), 51-69.
- Slijper, B. (2000). Twee concepties van liberale tolerantie in een multiculturele samenleving. *Migrantenstudies*, 15, (2) 83-96.
- Soysal, Y. (1994). *Limits of Citizenship. Migrants and Postnational Membership in Europe*. Chicago: University of Chicago Press.
- Tillie, J. (in collaboration with Meindert Fennema and Anja van Heelsum). (2000). *De etnische stem. Opkomst en stemgedrag van migranten tijdens gemeenteraadsverkiezingen*. (1986-1998. Utrecht: Forum.
- Tillie, J. (1998). Explaining migrant voting behaviour in the Netherland: combining the electoral research and the ethnic studies perspective. *Revue Européenne des Migrations Internationales*. 14(2), 71-95.
- Tocqueville, A.de. (1840) 1990. Democracy in America. *The Great Books of the Encyclopaedia Britannica*. Vol. 44. Chicago etc.
- Togeby, L. (1999). Migrants at the polls: an analysis of immigrant and refugee participation in Danish local elections. *Journal of Ethnic and Migration Studies*, 25(4), 685-703.
- Vertovec, S. (1999). Minority Associations, networks and public policies: re-assessing relationships. *Journal of Ethnic and Migration Studies*, 25(1), 21-42.
- Williamson, O.E. (1996). *The Mechanism of Governance*. New York and Oxford: Oxford University Press.
- Wittek, R. and Wielers, R. (1998). Gossip in Organizations. *Computational and Mathematical Organization Theory*, 4(2), 189-204.
- Young, I.M. (1990). *Justice and the Politics of Difference*. Princeton: Princeton University Press.

# Regional Actor Networks Between Social Capital and Regional Governance

Dietrich Fürst<sup>2</sup>, Herbert Schubert<sup>3</sup>, Ansgar Rudolph<sup>4</sup>, Holger Spieckermann<sup>5</sup>

University Hannover, University for Applied Science Cologne

*The development of regions depends on the social capital of regional actors. Reliable relations between actors help to move in a personal network. Social capital is a connecting bridge supporting the exchange of resources between actors. According to Coleman there are two basic principles which have to be maintained in order to create sufficiently social capital: "closure" and stability of social networks. Only in social networks with closure the actors may effectively combine their resources in collective sanctions. Examples for closure in social networks are cliques, social circles and multiplex relations. In the center of the analysis is the interaction between these patterns of relations and the influence of actors on regional decision processes. Based on empirical data collected from elite actors in the region of Hannover/Germany we show that closure of social structures facilitates the creation and maintenance of social capital in actor networks. In contrast to hierarchical instruments such as plans or promotional programs cooperation models which are based on the understanding and self-control of the actors concerned gain more and more importance in regional development. This cooperation is supported and coordinated by "regional management". A prerequisite condition for self control is a network between the actors, which does not a priori follow certain aims. It is supposed: If "purpose-open" networks are successful, they are a productive collective property. Therefore they belong to the infrastructure of a region and strengthen its social capital. Regional management may use this productive collective property. But it may and has to form and support regional networks as well in order to improve the chances of development of a region by cooperation. With the example of the region of Hannover/Germany the paper shows information about regional networks that can be gained in practice, and it presents interpretation possibilities with regard to regional development of the network structures found and describes starting points for action based on this interpretation.*

## REGIONAL ACTOR NETWORKS UNDER DEVELOPMENT PRESSURE

Actors of all sectors of the economy are more and more sucked into the whirlpool of supraregional and global networks. Not least supported by the Single European Market they are increasingly bound in supraregional relations (Cooke, 1995). The globalization of the economy, the dissemination of new information and communication technologies as well as changed ways of production (lean production, out-sourcing, just-in-time etc.) resulted in an "enlargement of scale" of eco-

---

<sup>1</sup> Based on a paper presented on the International Sunbelt Social Network Conference in Charlston in February 1999.

<sup>2</sup> Department of Regional Planning and Regional Science, University Hannover, Herrenhäuser Str. 2, D-30419 Hannover, Germany. Email: [fuerst@laum.uni-hannover.de](mailto:fuerst@laum.uni-hannover.de)

<sup>3</sup> University for Applied Science Cologne, Department for Socialpedagogics, Mainzer Str. 5, D-50678 Köln, Germany. Email: [herb.schub@t-online.de](mailto:herb.schub@t-online.de)

<sup>4</sup> Department of Regional Planning and Regional Science, University Hannover, Herrenhäuser Str. 2, D-30419 Hannover, Germany. Email: [rudolph@laum.uni-hannover.de](mailto:rudolph@laum.uni-hannover.de)

<sup>5</sup> University for Applied Science Cologne, Department for Socialpedagogics, Mainzer Str. 5, D-50678 Köln Germany. Email: [holger.spieckermann@dvz.fh-koeln.de](mailto:holger.spieckermann@dvz.fh-koeln.de)

conomic activities (Toffler, 1987). In contrast to that the political regional actors still think and act – due to their function – primarily locally and in administrative limits.

Globalization is connected with a loss of the spatial pattern of places. According to Manuel Castells this is a result of a “new logic of space”, he labels “space of flows” (1996, 378). This logic includes analogous to the “Panta Rhei” of Heraclit the connotation of space of flows; in postmodernism it replaces the old logic of space of places. An space or spaces of flows form the material basis of processes and functions of the communication and information society; three levels are to be differentiated (ibid., 412ff):

- (1) *Circuit of electronic impulses*: micro-electronics, computerization, telecommunication, satellite-aided mass communication and high-speed transportation are the material basis of the flowing space. They produce networks in which no place exists by itself since the positions are defined by flows. Places do not disappear but their logic and their meaning become absorbed in the network.
- (2) *Network of nodes and hubs*: The space of flows consists of the network of decision-making elites of global economy and the global financial system having its location in the global cities. Beyond these the continental, national and regional economies have their own nodes that connect to the global economy based on the logic of communication technologies.
- (3) *Global organization of dominant managerial elites*: In the communication and information society the dominant elites are in their networks and relations cosmopolitan. The space of power of elites is projected throughout the world, while people’s life and experience is rooted in places.

Anthony Giddens remarked that globalization is not primarily a phenomenon of the formation of a world system as described by Immanuel Wallerstein (compare 1979). It is as well not a continuation of the geographical expansion of capitalism of the West but as a consequence of the emergence of instantaneous global communication and the global spread of mass transportation it has to be considered as transformation of space and time (Giddens 1997, 23). As consequence of this development it is forecasted that local and regional contexts will be reordered, local communities will be uprooted and there will be a tendency that local and regional customs and practices will be dissolved. The regional actor networks are affected by that, as existing structural patterns decompose and new regional profiles may form. The results is a dynamic of tensions: The one group with a globally extending context of action will establish its identity in expanding chains of relations and the others will stay in spatially limited relations in the regional context.

Giddens formulates: The big companies influence new forms of social and economic regionalization, but they are not necessarily the main agents involved. Changing patterns of regionalization respond to wider aspects of globalization or, more accurately, to shifting relations of the local and the global. As elsewhere, processes of regionalization are dialectical, many pre-existing local communities disintegrate or become substantially restructured, but these self-same changes also promote local communal mobilization (1997, 130f.).

Richard Sennett argued in a similar way when he introduced the term “flexible capitalism”. Its main concept is “to act in a flexible way, to be open for short-term changes, to take risks and to become less dependent on rules and formal procedures” (Sennett 1998, 10). Social bonds elementarily develop out of a feeling of mutual dependency; but according to the standards of the new order of flexible capitalism dependencies are avoided. According to Sennett these changed framework conditions will have far-reaching impacts on the character of the individual. As the character of an individual depends on his or her connections to the world, traditional traits of character such as loyalty, mutual obligation, the pursuit of long-term targets or the postponement of satisfaction for the sake of future purposes are successively undermined by the new framework of flexible capitalism. With the loss of traits of character the individual will start to drift (ibid., 36). Just as in every day life of the at present pursued flexibility paradigm companies close down or merge and jobs

appear or disappear, there will no longer be a linear standard for the orientation of behavior. Companies stress that they have to free themselves from the linkages to places and regions. As a consequence also the spatial reference of actors starts to drift.

There is a system of power with a new orientation hidden behind flexible capitalism which discontinuously reorganizes institutions. The direction of reorganization of institutions can be illustrated using network theory: As loose networks are more open for fundamental reforms than pyramidal hierarchies for re-engineering processes, companies loose the connections between the nodes and fragment the linkages (ibid., 59f.). These changes in the networks of markets and production in the direction of unequal and unstable relations make a concentration of power possible without its centralization (ibid., 69f.).

“Flexible networks” are held in high esteem as the post-Fordistic competitiveness of companies is improved (compare Grotz 1996, 67). It is a principle of flexible capitalism that uncertainty increases the possibilities of moving in a network (compare Cooke, Morgan 1993; Knuth, Latniak 1991). In this context it is said that it is easier for the industrial company or the actor to move in a network the more ties are absent, the more detours or intermediate nodes there are between the actors.

These tendencies also have an impact on regional actor networks. They are under a critical development pressure as the flexibility orientation also dissolves structures of trust and commitment. In other words they are confronted with a field of tension of global and local orientation which has great importance for future developments of regional actor networks. This can be illustrated with a heuristic diagram which contrasts in an ideal-typical way the area of conflict of regional actors in the present situation or the current phase of globalization (see figure 1):

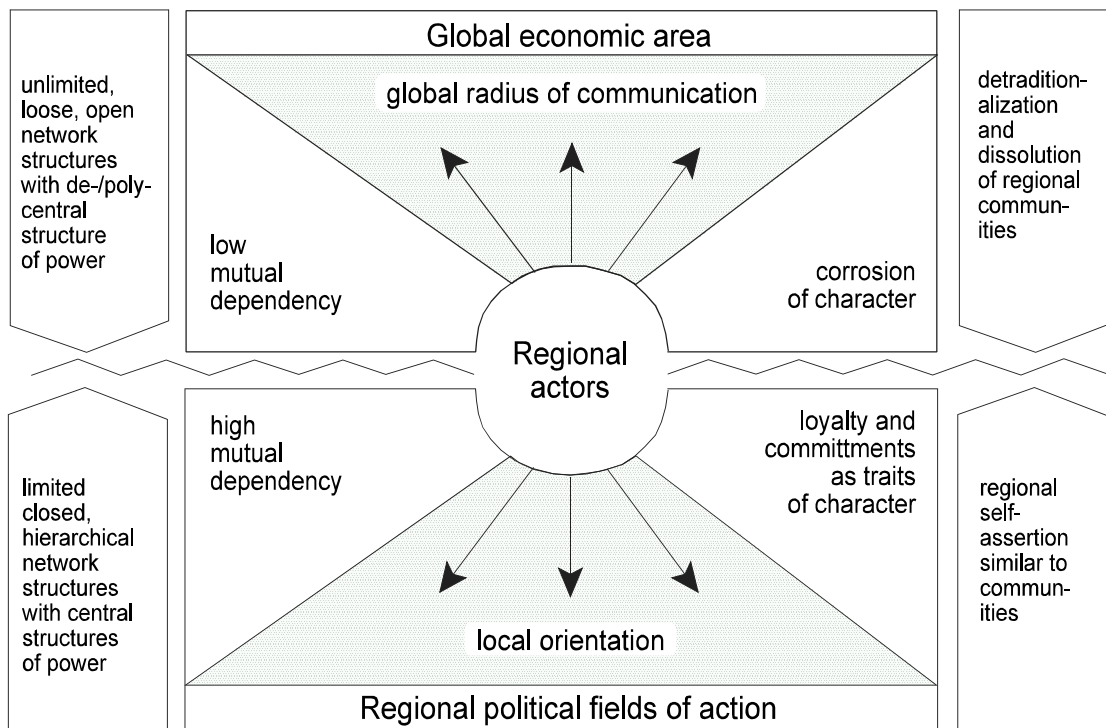


Figure 1. Regional actors in the field of tension of global and regional orientation

- (1) Due to the globalization of the economic area, the communication radius of regional actors with economic orientation also widens on a global scale. Interpersonal connections

tend to be woven more and more in unlimited loose and open network structures with decentral or polycentral structures of power. There are less mutual dependencies; the importance of social traits of character such as trust and mutual obligation is reduced in favor of principles of individual freedom of action. Also regional communities lose their importance in this process.

- (2) In contrast to the first group the network structure of actors with an orientation to regional policy areas is limited and closed, they have a hierarchical tendency with a centralized structure of power. Their connections are characterized by stronger mutual dependencies due to the higher permanence of relations based on spatial closeness. Due to this fact traits such as trust, bonds and common aims have an important control function. A result of the relative closure of the network is regional self-assertion and identity in analogy to communities. In this way the network can be differentiated from interconnection contexts of other regions.

## **SOCIAL CAPITAL IN ACTOR NETWORKS**

Coleman and Putnam counter a model that emphasizes absent ties in networks with a concept of social capital. "Social capital" is defined as potential being produced in the social life of persons in communities. It comprises characteristics of social life such as networks, norms and trust which enable the individuals to act more effectively together and to pursue common targets (Putnam 1995, 664).

As a result of Putnam's studies in Italy those regions are considered economically and culturally successful in which a multitude of common organizations and contacts exist and in which an atmosphere of trust as well as mutual responsibility prevails (1993). In regions that are economically and socially less successful the advantage of cooperation is rationally recognized but there is no trust in regional consensus on the willingness to cooperate. Without this trust individual strategies are pursued to realize one's own advantage at the expense of the others. A central role plays: (1) the willingness to participate in local networks and (2) trust in the behavior of other actors.

For all areas of society from administration to commercial enterprises social capital is defined as precondition. For example cooperation in an atmosphere of trust, self-help ability, or the development of a common system of values are considered as results of social capital. Against this background Fürst states that regions depend on the surrounding social capital (1994; 1997; 1998).

The term social capital has its origin from the application of the term of physical capital to the area of social sciences. Coleman differentiates physical capital, human capital and social capital. All three types of capital have in common is that they have their origin in changes. Physical capital is created by changes in material to form tools that facilitate production. Human capital results from the acquisition of skills and capabilities that make persons able to act in new ways. In contrast to other forms of capital, social capital is not lodged in the actors themselves but it results from the relations between the actors. Social capital is a resource that is based on changes in the relations between the actors so that certain actions are facilitated and individual intentions can be put through. The value of social capital lies in the fact that it is determined by the properties of social structures and by the function it has for the actors. The functions for the actors are the use of social structures in order to achieve individual interests and aims (Coleman 1988, 1990).

Social capital also includes stable experience from the past and reliable relations in the present which help to move through a personally attainable network. So to speak social capital virtually exists in social relations as possibility to combine human resources. In order that social capital can be a connecting bridge for the exchange of resources of the actors according to Coleman it is less important to increase flexibility than to connect open network options (1988, 99). This closing of the network presupposes that the actors live in the same regional environment, visit the same places and events, share the same normative experience and have an interpersonal bond-capability. Com-

municative, economic or political exchange and activities in networks cannot be successful without social embeddedness (in the sense of Granovetter). According to Coleman, from the point of view of flexibility, each (partial) withdrawal from social networks reduces the potential social capital.

A discontinuity of actor networks – e.g. as a result of globalization – may lead to a regional lack of social capital. According to Coleman there are above all two basic principles, that have to be maintained for the sufficient production of social capital. These are on the one hand the closure of networks and on the other the appropriable social organization. Only if the relation patterns of social networks form closed chains and circles can the members effectively combine their resources in collective sanctions (Coleman 1988, 105). A multiplex network has a stock of sustainable social capital that can be used for multiple purposes (*ibid.*, 108), as in multiplex networks resources of one relationship can be appropriated for the use in others, they can be used for more than one purpose.

Bernd Pietschetsrieder, president of the board of directors of BMW has recognized this fact. At a forum of the Federation of Employer's Organizations of the Metal Industry in Berlin he has stressed the importance of relations (1998, 18): "The central challenge of modern regional policy is a management that includes all partners and departments: i.e. companies, labor unions, education and research institutions, structural, education, research and cultural policies, job creation and approving authorities have to see themselves as network partners... But a clear role distribution between the actors or the assignment of responsibilities and the maintenance of sanction mechanisms – e.g. by competition and the market – may not be put into question. Extraordinary competences being an important factor for competitiveness do not develop on their own in individual companies. They develop in a process of competition and cooperation along the chain of the creation of value." As this argumentation focuses on the chain of creation of value, a dichotomy of the term network has to be assumed. Networks with and without spatial ties of creation of value are to be differentiated. Therefore regional actor networks are in competition with functional networks with relatively few spatial ties for the social capital of more globally connected actors.

## **OPERATIONALIZATION OF SOCIAL CAPITAL IN NETWORKS**

Coleman follows the paradigm of methodological individualism. But he does not assume that the explanation of system behavior only includes individual activities and attitudes (1990, 6). Elements of the systems are on the one hand actors and on the other the resources or events, they control or they are interested in. From the interaction of individuals result new emerging phenomena on the level of systems. Actions take place on the level of individuals, the level of systems exists in form of newly developing properties that characterize the system of actions as a whole. The behavior of a social system is explained on the basis of three components: (1) the impact of system-inherent properties on limitations or orientations of actors, (2) actions of actors belonging to the system, and (3) the linkage or interaction of these actions, which are responsible for the creation of system behavior (*ibid.*, 33).

As the actors do not completely control the resources that can satisfy their interests transactions with other actors are necessary. The types of exchange and transfer of control take place within the scope of social ties, mostly in form of authority relations, trust relations or the allocation of rights per consensus. These social relations are not only components of social structure but are themselves resources for the individuals (*ibid.*, 389). Coleman interprets these social resources as capital assets for the actors (*ibid.*, 392). These are embodied by the relational structure between the actors and they facilitate certain actions of the actors who are part of the system. In this way social relations are in principle connected with social capital.

Physical capital is created by changes in material to form tools, human capital results from the acquisition of skills and capabilities that make persons able to act in new ways. The characteristic of social capital is that relations between persons facilitate certain actions (*ibid.*, 394). In a triad between three persons A, B and C the nodes correspond to human capital, whereas social capital is

represented by the lines that connect the nodes. The function the term “social capital” depicts, is the value of relational resources for the realization of interests of the actors (ibid., 395). If A does something for B and trusts B to reciprocate in the future this establishes an expectation in A and an obligation on the part of B to justify the trust. This obligation has the character of a “credit slip” as Coleman calls it.

If A holds a large number of these credit slips for a number of actors there is a direct analogy to financial capital. In one social structure there may be an intensive level of dependency of actors with a large number of credit slips, whereas actors in another structure may be more self-sufficient and depend less on each other so that there are at any time fewer credit slips outstanding (ibid., 396 f.). Above all networks lacking ties have fewer credit slips. One consequence of the absent ties in a social network is that the actors do not have the opportunity to influence the contributions of the others. As they have no relation to each other they can neither motivate nor sanction each other. Under these uncertain relational conditions it is for nobody relational to contribute (ibid., 357).

In a triad between the three persons A, B and C in the ideal case the chain of relations is closed in a “three-actor-system.” Each actor controls events the two others are interested in in the same way. Due to this symmetry the power of the three persons is equal in size. If there is no relation between B and C the system has a hierarchical structure. Here actor A has twice as much burdens and credit slips as B and C and therefore also has more social capital he can use. B and C have less power than A if the events controlled by A and B are of the same interest for both actors and if also the events controlled by A and C are of equal interest. According to Coleman the power of an actor is a direct measure for the social capital an actor has available in a system.

An important form of social capital is the potential for information that inheres in social capital. If network contacts supply information that facilitate particular actions it constitutes social capital (ibid., 402 f.). Also the existence of “effective norms” constitutes a powerful form of social capital. Particularly, the norm that one should forgo self-interests and act in the interest of the regional collectivity represents an important form of social capital. On the other hand effective norms may reduce the innovativeness of actors as deviant actions are limited (ibid., 403 f.). If an actor has transferred the right of control over certain actions to an other actor this has received social capital in form of these rights of control. If several actors transfer similar rights of control to the actor he has an extensive fund of social capital so that a great potential of power results from this authority relations (ibid., 404). Voluntary organizations are brought into being to aid some purpose of those who initiate them. The relations resulting from that are available for appropriation for other purposes. The social capital of organizations that were initiated for one purpose therefore often is used for different purposes (ibid., 405).

## **MOBILE AND STATIONARY SOCIAL CAPITAL**

The described development pressure of regional actor networks is to be interpreted against this background in a way that in flexible networks the degree of independence of actors increases. The greater independence corresponds with a lower potential of social capital; as a consequence of the weaker level of interpersonal trust, fewer credit slips of social capital exist. Under the conditions of increasing flexibility social capital changes in a way that the extent of interpersonal combination of actor resources to social capital reduces. According to Coleman the reasons are changes in the “degree of trustworthiness,” the “degree of closure of regional actor networks,” and the “logistics of social contacts” (ibid., 398).

Regarded from another point of view there is a tendency that the interactive scope of action of the actors extends over a large number of actors due to the flexibility trend and that the social capital resources spread over a larger network radius. This can at least partly be due to the dehierarchization of social networks. In networks with a hierarchical structure the credit slips of social capital are of above average benefit to single hierarchical heads or actors whereas such a concentration is not



found in less hierarchical structures (ibid., 401). The credit slips of social capital are distributed evenly over the actors in case of low centrality.

In order to be able to contrast the tendencies of actor relationships in an ideal-typical way the differentiation of the terms “mobile social capital” and “stationary social capital” is introduced. Also this differentiation has a heuristic character. The pressure the regional actors are confronted with in the present phase of globalization is transferred to the potential social capital (compare figure 2):

- (1) Regional actors with global orientation have in the majority space-independent individualized relationships. Their contact structure can be described as flexible. Therefore their trust in a network with regional connections is rather low, they mistrust regional forms of communities. The social capital of these network structures is mobile as in open networks special resources can be combined in an individual and flexible way at different places (ubiquitous and temporary). These actors tend to evade the integration in regional network structures.
- (2) In contrast to these actors with a more regional orientation are embedded in relatively stable contact networks. Their relations are mainly tied with the region, they are characterized by interpersonal trust as well as positive expectations. On the basis of an accumulated capital stock of credit slips regional resources can be combined in an extensive way due to the closure of the networks. The social capital is stationary as its sphere of activity is concentrated on the region (stationary and permanent).

There is competition between both types of capital; under the global pressure, regional networks threaten to lose stationary social capital due to its mobilization. In turn regionally oriented actors try to bind as much of the mobile social capital as possible in the region and to transform it into stationary social capital.

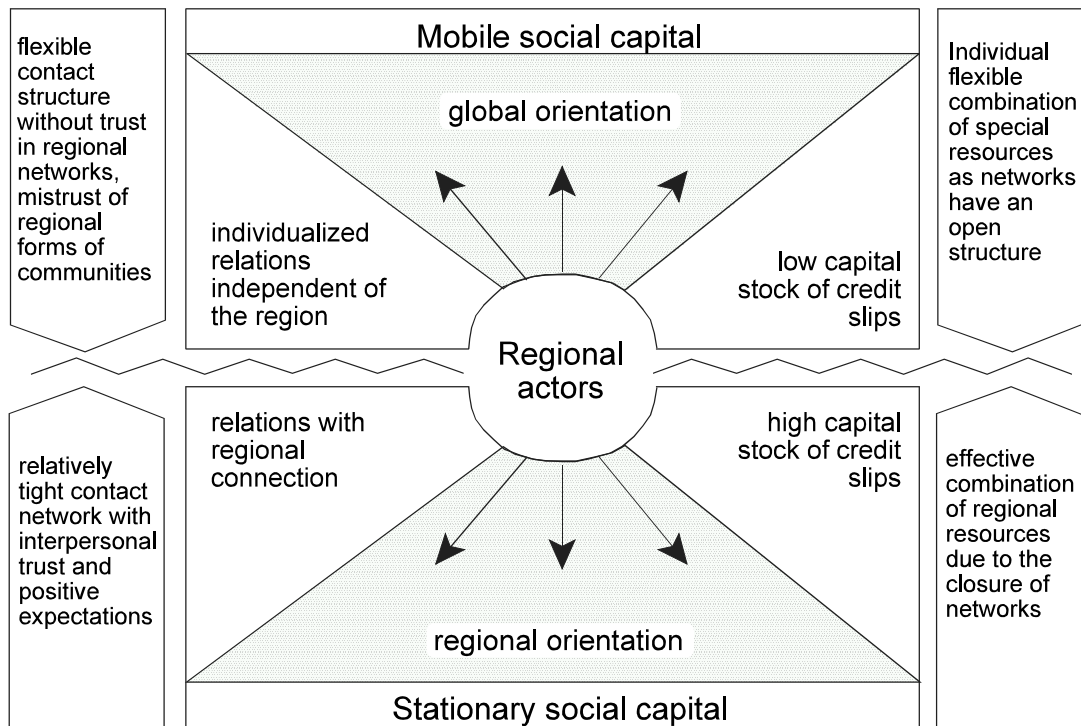


Figure 2. Regional actors in the field of tension of mobile and stationary social capital

Against this background hypotheses can be formulated about the conditions on which regional actor may be successful in embedding the flexible global actors in the region. Particularly such regional networks are successful in self-assertion that have created organizational obligation structures in order to bind global actors regionally. Therefore regional networks can be considered successful if they have succeeded in binding as much of the mobile social capital as possible in the region and to make it stationary in this way.

The following hypotheses can be formed:

- (1) One condition for success is that regionally oriented actors include globally oriented actors by *linking them to their network*. Only with active connections in the regional network can a spatial bond be created, only by integration in the network can the willingness to cooperate in the regional context be aroused.
- (2) Regional actor networks are moreover considered successful that have *established organizational structures of trust* in order to embed globally oriented actors. Only in organizational structures with obligation potential are effective combinations of actor resources to social capital possible by interlinkage.
- (3) The establishment and application of a *sanction and reward code* within the social tie structure represents another condition for success in order to link globally oriented actors in the regional network. Sanctions further the development of norms which have a high binding force on external actors due to internalization.
- (4) Regional actor networks that succeed in giving trust in the regional network to both globally and regionally oriented actors, and giving rise to *positive expectations* can be considered successful.
- (5) Decisions of regional importance are dominated by actors with stationary social capital. A *successful decision power* therefore requires a certain proportion in favor of regionally oriented actors.
- (6) If there are too many actors with mobile social capital in a regional network *the chances of self-governance* are reduced as the above mentioned aspects of success are too weak. The chances of a region being in international competition worsen if actors with mobile social capital cannot be linked to the regional network.
- (7) *Representation* belongs to the universal forms of organization of society. In networks, representation has the function of intermediate authorities; therefore it has a key role of intermediation. Regarded from the point of view of game theory, all actors relevant for decisions no longer act with each other. Due to a lack of coordination and determination of aims as well as due to own interests, hindering or counter-productive effects in the network may result; but it is also an instrument of support for the maintenance of contact between globally oriented actors and regionally oriented actors through intermediaries.

Siebel and Mayer have analyzed “the organization of innovation” with the example of the IBA Emscher Park and the EXPO 2000 Hannover (1997). They too stress the “input of new actors” – their external expert knowledge is used in order to attain qualitative improvements in the region – and the “concentration of resources” by bundling and linking personal capacities with a focus on space, content and time (ibid., 2). Integrated work requires project-related cooperation of actors of different fields and interests.

It is a new form of regional policy governance if instruments and strategies are developed with the aim to bind external flexible social capital in the Ruhr area and in Hannover. The creation of new organizational forms that stimulate and increase cooperation between public and private actors is stressed as particular innovation of process. The new organizational patterns enlarge the social

scope as actors with mobile social capital are included into the process. Before that the competence of these actors could not be used or their interests were underrepresented. EXPO 2000 and IBA Emscher Park fulfill – regardless of all differences – the function of an organizational obligation structure in the region. In the region of Hannover numerous actors with a global tendency of social capital could be – at least temporarily – bound in the regional actor network. Moreover aspects of the EXPO 2000 are the thread of the involvement in the issue: according to own statements nearly 90% of the regional actors are concerned with this issue.

## INDICATORS OF SOCIAL CAPITAL OF REGIONAL ACTOR NETWORKS

A characteristic of social structures that further the creation of social capital is the closure of social networks. In open social structures selfish behavior to the disadvantage of other actors rarely is sanctioned. Structures with closure allow sanctions and the compliance with expectations and obligations. In this way they support the reliability and trustworthiness of relations and thus serve the constitution of social capital (Coleman, 1988).

A broad definition of closure of social networks could be that each actor who has at least two relations to other actors in a completely connected network already has closed relational patterns. And actors with several direct links to other actors have multiple closed relation patterns. Actors who have direct relationships with actors that have many links to a large number of actors have clearly more closed relation patterns than actors having numerous relations to actors with rather few ties.

Indicators of network analysis can be used to describe these closed structures:

- (1) **Centrality:** In literature the term “centrality” comprises the central position of actors i.e. the distribution of power in a network (Schweizer 1996, 183). Wassermann and Faust call the central favorable position in a network “prominence” (1994, 179). The measure “degree” is the sum of lines, an actor has as direct relations. In contrast to the total number of direct relations the degree describes how much of the total social capital of a network can be directed to individual actors. Actors who are firmly embedded in the network with complex connections in the region have a central position, this is called “local centrality” by Scott (1991, 86). The measure “closeness” describes the distance of the actors. It includes indirect relations of actors in the network that are connected via others. The closer the points are in a network the easier becomes communication, actors can establish contacts more effectively with a low level of dependency on others. The distances between the different actors are measured; Scott calls this “global centrality” (1991, 88). Actors of global centrality are those who can get in contact with many of the other actors without being directly connected to them. In the first step these two measures of centrality help to find out those actors who have on the one hand the highest potential social capital and on the other those who have the lowest potentials. In comparison a distribution function of social capital can be depicted that makes statements about the degree of embeddedness and hierarchy possible. Hierarchical networks in which few actors are able to mobilize an above-average potential of social capital are limited in their innovative combinability of actor resources and can be considered less productive. In a further step the extent of social capital and thus the potential power of individual network sections can be shown. Here the local and global centrality of actor contexts with more mobile and actor connections with rather stationary social capital can be compared to each other.
- (2) **Social circles:** In the focus are cliques, i.e. complete subgraphs between at least three persons when all persons are connected to each other. If cliques intersect via a multitude of actors their structure forms a “social circle.” A circle consists of several cliques that overlap. If actors belonging to the same clique have a larger number of mutual acquaintances they are members of numerous small networks. Alba has therefore proposed that

overlaps should be recognized in social network analysis (compare Alba, Moore, 1978). This concept goes back to the German sociologist Simmel (1908). He described already at an early date the “intersection of social circles.” The cohesion of a social circle is not founded on the direct face-to-face contact of the members – as in case of cliques – but on the existence of short chains of indirect connections which weld them together. (Scott 1991). As they result from the sum of the intersections of cliques and therefore from the ramification of indirect connections the circles are not visible for the actors. Social circles are therefore to be understood as a structure with only loosely defined boundaries which have no clearly defined goals (Kadushin 1968). Formal criteria of membership or formal organization are not decisive for social circles but Kappelhoff pointed to the fact that there are often relations to underlying institutional systems. (1987). All cliques with three actors which differ by only one member are merged into a circle. In cliques with more than three actors at least two-third of the member should be identical to be merged into a circle. The level of overlap as basis for the aggregation of cliques into circles can in general be freely chosen (Scott 1991, 123). In this context the chain of overlapping cliques is called “regional circle.” Characteristics of relations based on trust are contacts of several relational levels, e.g. business and private contacts, contacts in associations or political groups. It can be assumed that such multiplex relations promote the establishment of relationships of trust. The regional circle describes the potential stationary social capital if the actors are tied with each other in a multiplex structure with parallel connections at the levels of business and intermediate relations. Actors connected in a uniplex way are to be differentiated, they rather represent the mobile social capital.

- (3) **“Betweenness”**: The centrality measure betweenness is based on the fact how often an actor can be potential intermedior between actors. For each pair of actors the shortest distance of the path is calculated. The betweenness is the higher the more often an actor lies on the path between two actors in the network. Via indirect connections between two actors a third might have some control over the interactions between the two actors. The measure of betweenness indicates the barrier degree and the disruptive capacity of actors in a network (Schweizer 1996, 188). But it is not only the high level of control that characterizes the central intermediary position in the network; there are also the nodes that are of great importance for the closure of chains. Their “intermediary role” is very central to the connection of the social circle and to the whole network (Scott 1991, 89). In this way, for example, actors with a high betweenness can establish as broker or gate-keeper a large number of indirect connections although they only have few direct links. In this sense betweenness also describes circular or closed relational patterns. An actor with high centrality is a chain-link of the paths between many other actors so that he is central in closed networks. Actors with low centrality are rather located at the periphery of the network, they are loosely connected into the network.
- (4) ***Involvement in particular issues***: Regional actor networks have agglomeration advantages as the geographical closeness of the actors can be used for the collective acquisition of knowledge and synergies in the regional innovation process (König et al. 1997). At the regional level issue networks can be formed which concentrate the regional interests and competition potentials in the sense of social capital. On the basis of trust and reciprocity as well as of a common regional cultural identity transaction costs can be reduced by establishing regionally oriented pressure networks for different issues. Actors are considered to be successful who do not only commit themselves to a particular issue for a personal motive but who link with other regional actors who are concerned with the same issue. The analysis of regional network relationships according to their involvement in particular issues therefore leads to descriptive indicators: The density of relations between actors with similar interest is assessed in order to receive indications for “willingness to assume responsibility” in the network.
- (5) ***Variety of voluntary organizations***: Social capital is defined by the function it has for the actors in order to facilitate the realization of interests. This is done intentionally by the

actors with certain aims by taking part at events as well as with memberships in associations and societies. In this way an intermediary trust potential forms that is based on direct exchange of communication between the actors. Characteristics of voluntary organizations are direct, short chains of interaction. These organizations are mostly concerned with an issue and are oriented to action as the actors initiated them with a specific motivation and for a particular purpose. That is the reason why at the regional level mainly actors with stationary capital are interlinked in intermediary constellations. The frequency of organized events and discussion forums indicates intentional linkage and redundant connection strategies of the actors. Due to their involvement the relevance of particular issues for the regional development can be seen. On the other hand there is a risk that due to the fragmentation in many small discussion forums and sectional decision-making circles no social network establishes between the organized forums and the productive activation of development potentials is hindered. Indicators are the number of organizations and societies concerned with the same issue and the number of actors who are linked in particular organizations.

## **EMPIRICAL RESULTS IN REGIONAL ACTOR NETWORKS**

### **Sampling**

In order to determine the size and composition of the actor set in the region of Hannover a two-step method was chosen. In the first step all important persons and organizations in the region of Hannover were collected. In autumn 1997 all in all 2.000 persons and more than 1.000 organizations were listed in this first step. In order to limit the number of persons and organizations for the network analysis the set was reduced. At the end of 1997 persons and organizations were chosen that can exert a strong influence on regional development due to their position. The result of this narrowing was a reduction to 628 actors and 459 organizations.

In a second step 15 representatively chosen personalities condensed the number of actors and organizations with the reputational technique. They rated every actor and organization of the list with several hundred entries by their importance for regional development so that the sample was further reduced. They marked those persons and organizations with a cross they considered to be important for the region. After the anonymous individual assessment in writing the results were counted at the beginning of 1998. In order to be included in the sample survey the persons and organizations had to be nominated by at least two personalities. The persons and organizations have been integrated into one total list ( $N_{\text{SAMPLE}} = 179$ ).

Actors of regional importance were defined as: persons and organizations that play an important role for regional development due to their position or function; persons and organizations whose views and interests have indispensably to be taken into consideration in decisions of regional importance; persons and organizations that are attributed to have a decisive role for regional development by the public of the central city and the urban area.

### **Analysis of the regional actor network**

A letter informed the chosen actors about the analysis. They received a list with the names of the 179 persons of the sample. For the collection of network data interviews over the telephone were carried out as this form of communication has a high acceptance among leadership groups. In the first six months of 1998 data was gathered using "computer-assisted telephone interviews" (CATI), a method that has proven worthwhile in network analysis.

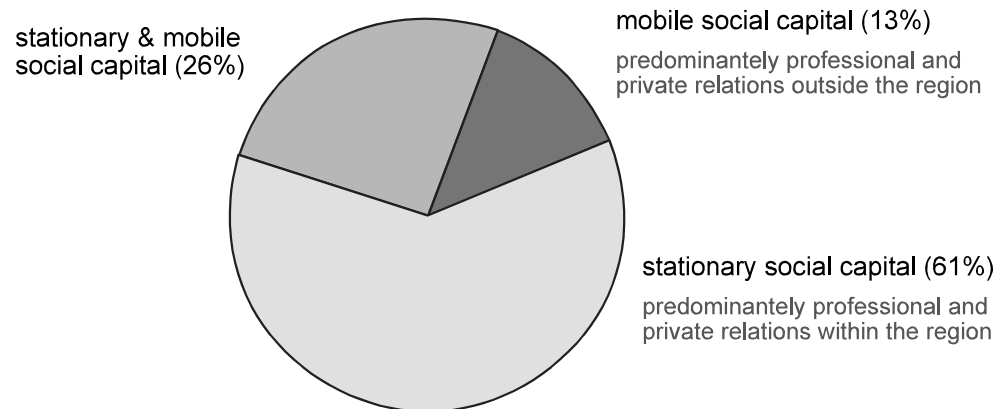
Most (81%) of the chosen actors participated in the interviews ( $N_{\text{REAL}} = 145$ ). Compared to other surveys, this is an above-average response rate. It emphasizes that probably also the included regional actors place high expectations in the survey. The analysis of a regional actor network in-

cludes the following dimensions of social networks: (a) die interorganizational relations that are cultivated through formal roles of job and business contacts and connections; (b) interpersonal relationships based on individual esteem that become the character of private contacts and that comprise in private contacts the confidential discussion of important matters; as well as c) informal relational options that serve as soft links the exchange of information, often in the form of a regularly used network of strategic and professional telephone contacts; (d) group relations based on voluntary organizations of actors (clubs, associations, societies etc.).

### Stationary and mobile social capital

Apart from the concrete network relations in the region the actors were asked about the spatial focus of their business and private networks. With this data the potential stationary and mobile social capital and the combination of both forms of social capital was determined in an ideal-typical way. Actors with a private and business network that is to a high degree embedded in the region have a large amount of stationary capital available. Correspondingly mobile capital predominates in case of actors without spatial network foci who have their private and business network outside the region of Hannover. Actors with networks inside as well as outside the region can activate a combination of stationary and mobile social capital to achieve their interests.

Starting from the thesis that the development chances of a region depend on the productive combination of stationary and mobile social capital the region of Hannover has a favourable starting position.



**Figure 3:** Stationary and mobile social capital in the regional actor network of Hannover (N=142)

As the majority of the actors have their place of residence as well as their place of work in the region of Hannover and as their field of business activity is oriented to the region, most of the actors have local social capital available that is located within the region of Hannover (61 %). The relatively high number of actors who unite in their person stationary and mobile social capital (26 %) shows that actors with a high proportion of mobile capital could be tied to the region. Among this group above all State politicians and members of the State Cabinet are to be named who are responsible for the whole state of Lower Saxony. A proportion of 13% of the actors mainly have mobile social capital available. An excessive amount of mobile social capital that is not tied to the region would have negative effects on the self-governance capacity of the region as on the part of the actors regional issues would be of low interest and regional decision processes of low importance. A lack of mobile social capital is disadvantageous in the European competition of the regions as few communication networks are established beyond the borders of the region. Both is not true for Hannover.

One task of regional network management is to bind actors with mobile social capital to the region. The extent to which the region of Hannover already succeeded in this establishment of bonds is shown by the network relations between actors of different forms of social capital. A first indicator is the density of network relations between actors with stationary and mobile social capital.<sup>6</sup>

**Table 1. Network densities of business relations between actors with stationary and mobile social capital in the regional actor network of Hannover (N=142)**

| network density of professional relations | stationary  | stationary + mobile | mobile      |
|---|-------------|---------------------|-------------|
| stationary                                | 0.39        | 0.31                | <b>0.40</b> |
| stationary + mobile                       | 0.33        | 0.29                | 0.37        |
| mobile                                    | <b>0.27</b> | 0.29                | 0.41        |

Table 1 shows that the density of business networks between actors with stationary capital and actors with mobile capital (0.40) only slightly differs from the density within the group of actors with stationary capital (0.39). Also actors with mobile social capital have to a high degree links to regional business networks.

Social capital is understood by Coleman in as a resource for persons, it is in the first place connected with the relation between individuals and society. But the term of social capital can also be applied to groups of persons and subsystems of society. Fürst (1998) sees a connection between social capital as part of human resources and regional governance mechanisms. The governance forms of regions and regional subsystems such as the economic, the political and administrative, and the social and cultural subsystem influence the development potential of a region. If the integration of regional subsystems in the region is interpreted as successful governance form the capability to integrate mobile social capital is a contribution to the strengthening of regional development potentials.

### Closure of social networks

Structures with closure support the creation of social capital. Stationary social capital is oriented to the region. The actors live and work in the region, there are many business contacts and meeting places. Correspondingly actors with stationary social capital have numerous direct contacts, they are mainly connected in structures with closure. Actors with mobile social capital have less time for relations, they are thus less integrated in networks with closure. Their connection to the regional actor network is mainly based on short chains of interaction.

If the numbers in Table 2, showing direct relations (degree) and the betweenness at the four levels of relation (job/business, telephone, association/society, private) of actors with stationary and mobile social capital, are compared to each other the results only partly come up to expectations. Stationary social capital is characterized by a large number of direct relationships; it is to a clearly higher degree integrated in structures with closure as represented by the centrality measure of betweenness. Actors with mainly mobile social capital are also highly integrated in the regional actor network. The number of direct connections only is slightly below average. But they are less often tied in business relation structures with closure. The integration of actors with a high amount of mobile social capital is mainly based on purpose-open private relations. In this field they are as

<sup>6</sup>The measure of density describes the proportion of the actual relations and all possible relations of the actors in a network. The value differs between 0 and 1. If the density is near 0 there are almost no relations between the groups of the analysis. A density of 1 means that all possible relations between the groups are actually realized.

intensively connected in networks with closure as actors with stationary social capital. The lack of integration in regional business networks is compensated for by private contacts.

Actors with stationary as well as mobile social capital have the most unfavorable integration in the regional actor network. The number of their average direct relations and their integration in networks with closure is at all levels or relation below average. The splitting between several local or regional networks has as inevitable consequence that there is only a weak integration in the actor network of a region. On the one hand these actors have an important function for the regional development on the other hand their local linkage is characterized by loose and open patterns of relation.

**Table 2. Centrality measures of actors with stationary and mobile social capital in the regional actor network of Hannover (N=142)**

| mean indegree                          | social capital |                     |        |
|--|----------------|---------------------|--------|
|  | stationary     | stationary + mobile | mobile |
| professional relations                 | <b>51</b>      | 44                  | 49     |
| regular phone calls                    | <b>24</b>      | 20                  | 22     |
| relations based on associations (sym.) | <b>12</b>      | 5                   | 6      |
| private relations (sym.)               | 4              | 2                   | 4      |

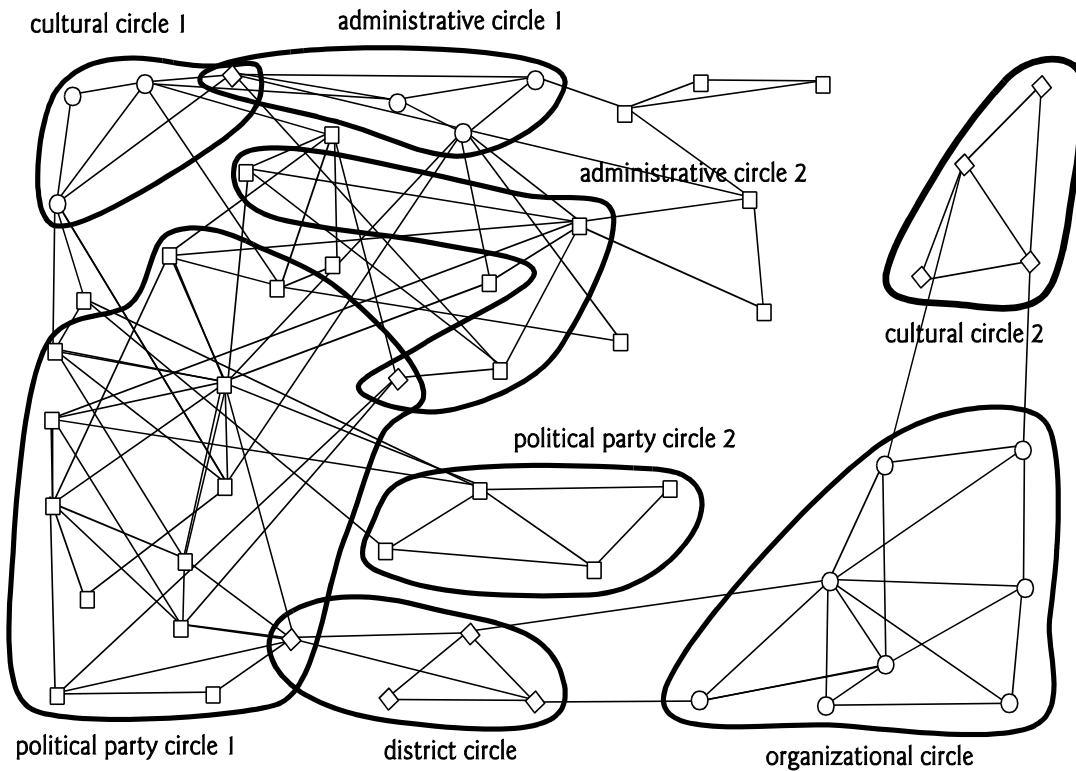
| betweenness                            | social capital |                     |            |
|--|----------------|---------------------|------------|
|  | stationary     | stationary + mobile | mobile     |
| professional relations                 | <b>0.4</b>     | 0.3                 | 0.3        |
| regular phone calls                    | <b>0.7</b>     | 0.4                 | 0.3        |
| relations based on associations (sym.) | <b>0.7</b>     | 0.1                 | 0.2        |
| private relations (sym.)               | <b>0.7</b>     | 0.4                 | <b>0.7</b> |

### Social circles as structures with closure

For the circle analysis the network of business and private relations among elite actors in the region of Hannover was chosen as in contrast to mere business relations private relationships are particularly based on trust between actors. Private relationships were considered as relations that were named by both actors (symmetrical relation). The result of the circle analysis is shown in Figure 4.<sup>7</sup>

<sup>7</sup> In the figure the actors are positioned in the graph using the multidimensional scaling technique (MDS). Multidimensional scaling calculates on the basis of closeness values the coordinates in a two-dimensional space so that the Euclidean distances between the actors are minimized (Wassermann/Faust 1994). Actors having many relations with each other are close to each other and are rather in the center whereas actors with few relations are more often at the periphery. For reasons of graphical representation the results of the MDS analysis were adjusted in a way that they are easier to read so that closeness values are not reflected on an accurate scale. Concentrations of actors with great proximity are pulled apart, peripheral actors come closer to the center.





**Figure 4.** Social circles of business and private relations in the regional actor network of Hanover

Of the total of 179 actors 44 actors are connected in private cliques. 107 actors are isolated and are not included in the diagram. The 44 actors can be combined in eight social circles of different size. The individual circles are not connected to each other in the same way. Intermediary actors who are members in several circles are indicated in a particular way. In the center of the network is the political party circle 1 consisting of members of the majority party. Tightly connected are the cultural circle 1, the administration circle 1 and the administration circle 2 including the upper administrative level of the central city. The political party circle 2 consists of political actors of the opposition; it only has links to the party circle 1. In direct connection to party circle 1 is also the county circle which is mainly composed of upper administrators of the county. The association circle has a direct connection to the county circle but no connection to the political party circle 1. It mainly consists of actors of the economic sector who have private contacts through common memberships in an association. Actors of the regional press and directors of cultural institutions form the cultural circle 2 that has the highest path distances to the other actors.

If the two forms of circular structures are compared to each other there are on the one hand actors connected in open structures: the isolates (not represented in the figure) and actors with social capital that only takes effect within the circle (party circle 2, county circle, association circle, cultural circle 2). Actors with circular structures of relation are actors who have numerous connections within their circle as well as beyond their circle (party circle 1, cultural circle 1, administration circle 1, administration circle 2). The comparison of actors of both circular patterns with regard to their structural properties such as membership of a political party, sectors etc. shows significant differences: actors with circular structures of relation are above average members of the majority party, they often belong to the political or administrative sector. 80% of them work in the central city. Their business and private contacts are predominantly located in the region but an above average number of them is oriented to the region as well as beyond it.

**Table 3. Circular relation patterns of actors with stationary and mobile social capital in the regional actor network of Hannover (N=142)**

| betweenness                            | social capital |                     |        |
|--|----------------|---------------------|--------|
|  | stationary     | stationary + mobile | mobile |
| circular patterns of relationships     | <b>19%</b>     | 8%                  | 26%    |
| non-circular patterns of relationships | <b>81%</b>     | 92%                 | 74%    |

The circle analysis based on multiplex business and private relations is to a high degree influenced by the private social network. The most part of the actor network is not represented in the private network. The findings of the previous analysis of structures with closure are corroborated by these results. The inclusion of actors with mobile social capital has its focus at the private level. Actors with a combination of stationary and mobile social capital are under-represented.

### Involvement in particular issues

Apart from general involvement in and interest for certain subjects the actors were asked about their concrete involvement in particular issues and the organizational structure in which this takes place.

**Table 4. Organization-related involvement of actors with stationary and mobile social capital in the regional actor network of Hannover (N=142)**

| issues  | social capital |                     |            |
|---|----------------|---------------------|------------|
|   | stationary     | stationary + mobile | mobile     |
| networks of enterprises, administration and science | 53%            | 43%                 | 44%        |
| support of enterprises                              | 53%            | 29%                 | 56%        |
| regional reform                                     | 58%            | 23%                 | 22%        |
| Agenda 21   | 53%            | 31%                 | 39%        |
| regional transport system                           | 38%            | 17%                 | 28%        |
| <b>EXPO 2000</b>                                    | <b>78%</b>     | <b>77%</b>          | <b>78%</b> |
| social problems                                     | 64%            | 49%                 | 28%        |
| environmental protection                            | 39%            | 20%                 | 17%        |
| <b>culture</b>                                      | <b>54%</b>     | <b>54%</b>          | <b>56%</b> |
| sports  | 28%            | 26%                 | 11%        |

A precondition for organizations that are concerned with particular issues is the geographical proximity of the actors in order to support the formation of relations of trust. Therefore it does not surprise that actors with stationary social capital are above average involved in all fields of issues. Issues

with a high integrative power for actors with mobile social capital are the EXPO 2000 and culture as well as economic issues with the focus on the promotion of the economy. Particularly the EXPO 2000 attracts independent of their social capital more than three quarters of all actors. Despite all controversial discussion the EXPO 2000 gives rise to great expectations on the part of the actors; from a network strategical point of view it has a high potential to activate regional actor networks.

### Variety of voluntary organizations

There are clear subject foci in the concern for particular issues of most of the actors. But the vast majority of the actors do not use organizational structures for their involvement or support. They communicate via bilateral contacts or informal spontaneous meetings. A large number of associations exists on the individual issues. The small number of actors in each organization shows the segmentation of the issue-related network in many different organizations. On average only two actors are active in the same organization. There are only few interconnections beyond the boundary of the party or the sector.

**Table 5. Regional Organizations and involvement of actors according to issues in the regional actor network of Hannover**

| issues  | number of organizations | actors per organization |
|---|-------------------------|-------------------------|
| networks of enterprises, administration and science | 19                      | 1.9                     |
| support of enterprises                              | 16                      | 1.8                     |
| regional reform                                     | 21                      | 2.2                     |
| Agenda 21   | 21                      | 1.4                     |
| regional transport system                           | 10                      | 1.7                     |
| <b>EXPO 2000</b>                                    | <b>25</b>               | <b>1.9</b>              |
| social problems                                     | 27                      | 1.8                     |
| environmental protection                            | 18                      | 1.3                     |
| <b>culture</b>                                      | <b>13</b>               | <b>2.6</b>              |
| sports  | 4                       | 2.5                     |

### REFLECTIONS ON THE GOVERNANCE FUNCTION OF NETWORKS

Networks gain importance as elements of regional infrastructure if they are stable, i.e. if they are permanently available as collective goods and if they have the function of a governance instrument for development processes. Also the context has to be taken into account in which the processes of regional development are considered. For example from a pure economic point of view the development of regional supply chains requires other network structures than a cross-sectional process of sustainable regional development.

Supply networks are clearly oriented to the aim of comparative advantages over competitors outside the network. Regional networks and thus an increase in the creation of value that is desirable for the region only establishes if there are advantages<sup>8</sup> over a supraregional network or market or over hierarchical exchange structures. Such purposive networks are also conceivable on other is-

<sup>8</sup>Jones, Hesterly & Borgatti call these advantages "comparative advantages".

sues at the regional level, e.g. the organization of an important event or the improvement of the regional education system.

Jones, Hesterly & Borgatti (1997) have developed a governance theory about purposive networks that is founded on the theory of transaction cost economics of Williamson (1994). Jones, Hesterly & Borgatti (1997) assume that structural embeddedness of actors in a network enables these to adapt, coordinate and safeguard exchanges through social mechanisms. In this way comparative advantages result. For the emergence of such networks the authors identify the following conditions:

- The actors have their specific qualities (human resources) the other actors are interested in ("asset specificity"),
- instable boundary conditions make the demand for exchange uncertain ("demand uncertainty"),
- the task to be fulfilled is too complex that it cannot be completed by a single actor or few actors ("task complexity"),
- cooperation is necessary in more than one case ("frequency").

Other regional networks e.g. regional forums or regional conferences but also the network of regional influential elites dealt with in this study are not purposive but they are characterized in an ideal-typical way by the openness of the connected actors to invest their human, financial and social capital for example in sustainable regional development. The above cited conditions for the establishment of purposive networks cannot be found or almost do not exist in this actor constellation. The asset-specific exchange is of such low importance for the actors that exchange has not to be safeguarded in a particular way.

It is expected of such "purpose-open" networks that they lead to new development processes or the reformation of existing structures. Their role can be interpreted as that of "meta-networks" that form the basis for the establishment of new purposive networks for the realization of innovative development strategies. Moreover they have in the same way as purposive networks the task to sanction or reward undesired or desired developments.

With two examples in the following the question is dealt with if the fulfilment of this task can be proved and probably also measured with a network analysis:

***Example 1: The coordination and sanctioning power of parties in comparison to that of meta-networks***

Political parties play a decisive role in the establishment of political will and in the concentration of political interests. Modern political parties - as they see themselves - can be considered as purpose-open networks. Their general ideological orientation comes second to their demand for internal plurality and their openness to different groups. In contrast to that is the actually very strict internal structure of the parties in which the leading level is mostly able to achieve their interests. If in party organizations the key positions at different levels are held by the same persons over a longer period of time the internal and external renewing capacity can be reduced.

The governing party furthermore tries to strengthen its power by giving key positions in the administration and in public enterprises to persons of its own ranks. If the same party is politically dominating in a region over a long period of time this may lead to the fact that the whole public life is penetrated by that party. Scientific discussion assumes that in this way conservative attitudes can be induced that hinder the development of the region (compare e.g. Grabher 1989).

Such a situation can also be found in the region of Hannover where party 1 dominates already for decades the political area of the central city, constitutes the State government and also plays an important role in the county even if party 2 as other large political party holds the majority of influential positions.

With the collected network data information may result about the actual impacts of party networks on communication and influencing structures of the regional elite. As the actors were not asked about party membership they could only be assigned to a party or considered independent if corresponding information was open to the public. This was the case for 122 persons. Top-level actors of the field of economy, science, culture and regional media are less often in public. Their political membership is not easy to find out, so that it can be assumed that they are under-represented in the sample of 122 persons.

Nonetheless the political power structure in the region is approximately represented in the sample. In the city of Hannover 55 % of the actors belong to party 1, this shows a clear domination in the filling of key positions. The situation in the county nearly is the opposite: Here party 2, the majority party in many municipalities of the county, supplies almost half of the actors. Party 3 and party 4 are smaller parties. The actors of party 3 are exclusively concentrated on the central city, they are more important in the central city than the actors of party 4. Party 4 has a stronger position in the overall network as it includes representatives of the county, of the regional association (association of planning authorities of the local area) and of other circles. As the actors in the city represent the largest group party 1 also has a dominating position in the overall network with 50,8 % of the actors.

Corresponding to our reflections of the beginning the membership in a political party plays an important role apart from the political sector also in the sectors of administration and justice. Here it is likely that the few office holders of the sector of justice are among the independents of this sector. The dominance of party 1 also in the economic sector is striking. This is easy to explain as some of the economic actors of the sample work in public enterprises. For these also a political membership is easier to determine. In nearly all fields actors of party 1 as strongest party are relatively less concerned with regional issues than most of the other groups. A reason for this may be that in the smaller parties or in case of independents tasks cannot be divided in a way this is possible for party 1 that has available numerous members. But also the other big party is more involved than party 1.

As already mentioned above a sclerotic and/or conservative network milieu is associated with the dominating position of a party in the region over a long period of time. For the confirmation or refutation of this thesis the internal and external densities of the parties within the total sample are investigated.

As expected the internal densities are very high with regard to the analysed network relations; in case of party 3 in business and association/party networks even the maximum value of 1 is attained. Association/party contacts and private friendship as rather purpose-open forms of relation play in case of smaller parties a much greater role than in case of the big parties as the values of internal density show that are partly many times higher.

**Table 6. Internal densities of political parties**

| Internal density           | business contacts | phone contacts | contact via Verbände etc. | private contacts |
|----------------------------|-------------------|----------------|---------------------------|------------------|
| Party 1                    | 0.58              | 0.36           | 0.27                      | 0.07             |
| Party 2                    | 0.52              | 0.31           | 0.26                      | 0.09             |
| Party 3                    | 1.00              | 0.90           | 1.00                      | 0.60             |
| Party 4                    | 0.67              | 0.53           | 0.40                      | 0.33             |
| independent                | 0.47              | 0.18           | 0.06                      | 0.04             |
| Density of overall network | 0.28              | 0.13           | 0.04                      | 0.01             |

A comparison of internal densities of business and party contacts of a party allows conclusions about the relation of the importance of party membership (business contact) and active party work (in approximation the level of relation “cooperation in associations and parties”) for actor networks. In case of party 3 this value attains as already mentioned the maximum of 1; party membership and cooperation in the party are among the leading elite not differentiated. A comparative low differentiation also exists in case of party 4. In case of party 1 the internal densities of business and association/party contacts differ more than in case of party 2. The common membership in party 1 obviously plays an important role in business contacts. In contrast the cooperation within the party is not well developed. Party membership probably often serves as instrument to improve access to business contact networks.

**Example 2: Comprehensive networks on regional reforms**

In the region of Hannover administrative reforms are planned with the aim to cut back on parallel administration structures between the central city, the county and the regional association and to facilitate internal administrative coordination processes. The amalgamation of the regional association and the counties to a new regional authority and the integration of the city of Hannover – apart from various special rights - at the same level as the towns and municipalities of the county in this authority is planned<sup>9</sup>.

On the part of the towns and municipalities there were considerable uncertainties about the impacts of this reform on the budget and about possible shifts in power distribution.

The State of Lower Saxony attached as political condition a common decision of the local authorities concerned in favour of regional reforms to the enactment of the reforms that have to be grounded in a State law. Therefore the city of Hannover, the towns and municipalities of the county, the county council and the regional association have to come to an agreement. This process is still going on.

The systems of the establishment of political will in the region primarily have a local orientation. Usually more attention is paid to the local council than to authorities at the county or regional level, the political parties have tight local structures of organization. Also within the party structures the innerregional distribution conflicts become visible. But above all their unanimous approval irrespective of local administration and party structures is a precondition for the realization of regional reforms. As subsystems on the one hand the actors of administration and on the other the political parties at the local and regional level are decisive for a successful discussion process. In the following it is to be analysed

- (1) what are the attributes in the network of most influential actors of those who – according to their own statement – support actively regional reforms,
- (2) in which way the relations of administrative authorities and of the connected political bodies between the city and the county are structured as subnetworks,
- (3) what kind of network relations exist between party representatives of the central city and the county.

Against the background of the postulated governance function this means to find out if from the meta-network of the most influential actors purposive, productive subnetworks can develop, as the meta-network is open for numerous options.

78 actors or 53,7 % of all persons asked stated that they support actively the issue of regional reforms. The largest part of them belongs to the sectors of administration/justice (28 actors) and politics (35 actors). Within these sectors this issue plays a very important role among the subjects asked about. Among the group of very influential actors the issue is as well considered to be very

---

<sup>9</sup> For complexity reasons the role of the upper administrative authority in this process is not dealt with.

important; it takes third place of all issues proposed. Actors who support regional reforms have moreover an above-average degree measure. Particularly the indegree measures in case of telephone contacts as well as contacts for the cooperation in associations/parties are the highest of the partial networks of involvement analysed. In summary in the subject of regional reforms particularly those persons of the network of most influential actors are involved who are from the sectors of administration/justice and politics that are most concerned by reforms, persons who are very influential and persons who have numerous links to the overall network. For a successful discussion of the subject the conditions are thus favourable.

Considering the internal densities of the partial networks on regional reforms differentiated according to relational levels it shows that those actors who actively support regional reforms actually are tightly bound at all levels. Particularly at the level of confidential phoning that allows agreements evading the formal way the densities are very high also compared to other groups involved in the issue.

A necessary though not sufficient condition for a successful discussion is that the actors concerned are generally well linked to each other. The actors have moreover to be prepared to compromise beyond their sphere of jurisdiction. Under this conditions an agreement does not become an automatism but good contacts beyond one's sphere of responsibility can be considered as decisive for a higher efficiency of discussion processes. Of particular importance is the opportunity for informal contacts ignoring official channels; here usually single phone contacts do not suffice.

It seems that there is a structural barrier between the political and administrative systems of the central city on the one hand and the county and its towns and local authorities in the other hand. There are numerous distribution conflicts between the central city of Hannover and the area around that lead to a difficult atmosphere of negotiation. Also refusal or restructuring on the part of administration actors is conceivable, especially restructuring is connected with shifts in jurisdiction or even loss of competence. Therefore the densities of phone contacts among and between the subsystems of the city and the county of Hannover are analysed:

All those actors of the overall network were chosen who carry out a political or administrative function at the level of the city of Hannover on the one hand and at the level of the county of Hannover, its town and local authorities on the other hand. The actors of the regional association should due to their nominal tasks have an intermediary position between both sides. It would be very interesting to include this group into the comparison but as the number of these actors is extremely small they cannot be taken into consideration in the following table. But there are indicators for the fact that they comply with the function of an intermediary.

**Table 7. Network density between actors of the city and the county.  
Contact level: phone calls for no particular reason**

|                                      | density |        |
|--------------------------------------|---------|--------|
|                                      | city    | county |
| city                                 | 0.455   | 0.108  |
| county                               | 0.158   | 0.453  |
| density of overall network : 0.125   |         |        |
| actors city: 15<br>actors county: 23 |         |        |

As expected the actors of the city and the county are internally tightly connected with each other. The bonds in the overall network of most influential actors at the relational level of phone contacts is used for comparison. The network densities between both groups are considerably lower. The contact rate of actors of the county in the city is above general average whereas this is not the case in

the other direction. This could be a possible barrier. Here the infrastructural quality of the network could be improved.

As described in the first example political parties play a decisive role in regional negotiation processes. Independent of the business or political positions in the following example network relations of actors are compared to each other who are members of one of the big parties<sup>10</sup> and who are – with regard to their business/political context – classified to belong either to the city or the county of Hannover.

The table clearly shows that within a party relational structures for informal communication are tighter than within territorial boundaries. But within the parties also big differences in contact densities can be seen between the territorial units. In case of party 1 it is interesting that the actors of the county have more contacts in the city than from the city in the county. In case of party 2 the opposite is true, but the difference is even greater. City and county actors obviously attach different importance in the party network. This presents starting-points for an increase in efficiency of the actor network on the issue of regional reforms.

**Table 8. Network density between actors of the big parties of the city and the county, contact level: phone calls for no particular reason**

| Densities          | Party 1, City | Party 1, County | Party 2, City | Party 2, County |
|--------------------|---------------|-----------------|---------------|-----------------|
| Party 1, City      | 0.419         | 0.238           | 0.142         | 0.063           |
| Party 1, Landkreis | 0.267         | 0.709           | 0.106         | 0.247           |
| Party 2, City      | 0.176         | 0.076           | 0.467         | 0.286           |
| Party 2, County    | 0.097         | 0.292           | 0.214         | 0.39            |

Density of the overall network: 0.125

actors Party 1, city: 41  
actors Party 1, county: 13  
actors Party 2, city: 12  
actors Party 2, county: 17

### ***Network governance and regional management***

Regional meta-networks are effective at a collective level, e.g. by enabling the establishment of purposive networks that reduce external effects of individual action of persons. Such networks become important regional elements of infrastructure if they are seen as collective productive goods and are used by the elites.

The task of regional management oriented to networks could be to give actors an understanding of the importance of collective gains from networks and to arouse their interest with efficient marketing strategies. A solid socio-emotional basis is a precondition for purpose-open networks.

The influential regional elites should be made aware that they belong to a network. Also the establishment of regular communication forums is of importance in order to ensure a continuous exchange and therefore the frequency of relations described by Jones, Hesterly & Borgatti (1997). Leading persons can only be successfully linked through regular contacts. It is important that communication takes place also outside ideological or interest organizations such as parties, associations or boards.

<sup>10</sup>An analysis of the smaller parties would of course be interesting but *their number in the sample* is too small for reliable calculations.



With network analysis within the scope of network management it is possible to show structures that reduce efficiency and especially insufficient densities between subnetworks. With network analyses and the knowledge of conditions necessary for the establishment of productive networks perhaps also actors can be gained for result-oriented networks if concrete regional problems have to be solved.

Regional management using networks is confronted with the dilemma between personality protection (data protection) and the individual social character of relations in a network. Network analysis depends on the collection of critical actor data. Relations of trust are necessary for that. In order to comply with this precondition network managers should be located outside the network. They should moreover not have own interests in the networks (except for the gain resulting from their success in network management).

Networks are based on their continuity, they are at the same time open for changes in their composition. Regional management using networks therefore has to be a continuous process. In contrast to management methods used until now (e.g. discussions/negotiations with a moderator, regional conferences) no limits in time should be set.

## REFERENCES

- Abrahamson, E., Fombrun, C. J. (1994). Macrocultures: Determinants and Consequences. *Academy of Management Review*, 19(4): 728-755.
- Alba, R.D., G. Moore. (1978). Elite Social Circles. *Sociological Methods & Research*, 7: 167-188.
- Amin, A., Robbins, K. (1990). The Re-Emergence of Regional Economies? The Mythical Geography of Flexible Accumulation. *Environmental and Planning D: Society and Space*, 8: 7-34.
- Asheim, Björn T. (1996). Industrial Districts as Learning Regions: a Condition for Prosperity. *European Planning Studies*, 4: 379-400.
- Backhaus, A., Seidel, O. (1998). Die Bedeutung der Region für den Innovationsprozeß. Eine Analyse aus der Sicht verschiedener Akteure. *Raumforschung and Raumordnung*, 4.
- Benz, A. (1994). Kooperative Verwaltung: Funktionen, Voraussetzungen and Folgen. Baden-Baden: Nomos.
- Benz, Arthur (1995). Politiknetzwerke in der Horizontalen Politikverflechtung. Jansen, D.; Schubert, K. (Eds.) *Netzwerke and Politikproduktion. Konzepte, Methoden, Perspektiven*. Marburg: Schueren, 185-204.
- Brandt, A. (1996). Hat Hannover ein innovatives Milieu? Schmalstieg, Herbert (ed.) *Zukunftsfähiges Hannover: Wege zu einer nachhaltigen Entwicklung einer Großstadtregion*. Hannover: Verlag Buchdruckwerkstätten Hannover, 111-121.
- Brandt, A., Jüttner, W., Weil, S. (1991). *Das Expo-Projekt. Weltausstellung and Stadtzukunft, Hannover: Fackelträger-Verlag*.
- Bullmann, U., Heinze, R.G. (Eds.). (1997). *Regionale Modernisierungspolitik: nationale and internationale Perspektiven*. Opladen: Leske + Budrich.
- Cappellin, R. (1997). Federalism and the network paradigm: guidelines for a new approach in national regional policy. Danson, M. (ed.) *Regional Governance and Economic Development*. London: Pion.
- Castells, M. (1986). The Rise of the Network Society. *The Information Age: Economy, Society and Culture*. Vol. I. Cambridge, Mass. et al.: Blackwell.
- Coleman, J.S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology*, Vol. 94, Supplement, 95-120.

- Coleman, J.S. (1990). *Foundations of Social Theory*. Cambridge, Mass., London: Belknap Press of Harvard University Press 1990.
- Colletis, G., Pecqueur, B. (1994). Die Französische Diskussion über die Industriedistrikte - über die Bildung von "Territorien" im Postfordismus, Krumbein, W. (ed.) *Ökonomische and politische Netzwerke in der Region*. Münster and Hamburg: Lit, 5-22.
- Cooke, P. (1995). Planet Europa: Network Approaches to Regional Innovation and Technology Management. *Technology Management*, 2: 18-30.
- Cooke, P., Morgan, K. (1993). The Network Paradigm: New Departures on Corporate and Regional Development. *Society and Space*, 11: 543-64.
- Cooke, P., Morgan, K. (1995). The Creative Milieu : A Regional Perspective on Innovation. Rothwell, R., Dodgson, M. (eds.) *The Handbook of Industrial Innovation*. Aldershot: Elgar 25-32.
- Eichhorn, L. (1995). Hannovers Wirtschaftsentwicklung seit der Wende im Städtevergleich. *Stat. Monatshefte Niedersachsen*, 10.
- Ernste, H., Meier, V. (1992). *Regional Development and Contemporary Industrial Response*. London: Belhaven Press.
- Freeman, L.C. (1979). Centrality in social networks: Conceptual clarification. *Social Networks*, 1: 215-239.
- Fürst, D. (1998). Projekt- and Regionalmanagement. Akademie für Raumforschung and Landesplanung (ed.): *Methoden and Instrumente räumlicher Planung*. Hannover, 237-253.
- Fürst, D. (1998). Humanpotential - Ressource der Regionalentwicklung. (forthcoming)
- Fürst, D. (1997). Humanvermögen and regionale Steuerungsstile - Bedeutung für Regional management? *Staatwissenschaften and Staatspraxis*, 8, H.2.
- Fürst, D. (1994). Regionalkonferenzen zwischen offenen Netzwerken and fester Institutionalisierung. *Raumforschung and Raumordnung*, 54: 184-92.
- Fürst, D., Schubert, H. (1998). Regionale Akteursnetzwerke. Zur Rolle von Netzwerken in regionalen Umstrukturierungsprozessen, *Raumforschung und Raumordnung*, 5/6.
- Giddens, A. (1997). *Jenseits von Links und Rechts. Die Zukunft radikaler Demokratie*. Frankfurt/Main: Suhrkamp
- Grabher, Gernot (1989). *Industrielle Innovation ohne institutionelle Innovation? Der Umbau des Montankomplexes im Ruhrgebiet*. Wissenschaftszentrum Berlin für Sozialforschung(eds.), Diskussionspapier FS 89-7, Berlin.
- Grabher, G. (1991). Netzwerke - Ein Ansatz für den Umbau des Montankomplexes im Ruhrgebiet? Hilbert, J. et al.(eds.) *Neue Kooperationsformen der Wirtschaft*, Opladen: Leske + Budrich, 95-108.
- Grabher, G., Stark, D. (1998). Organisation der Vielfalt: Evolutionstheorie, Netzwerkanalyse und Postsozialismus. *Raum-Forschung*, 32: 46-53.
- Granovetter, M. S. (1973). The Strength of weak Ties. *American Journal of Sociology*, 78: 1360-1380.
- Grotz, R. (1996). Kreative Milieus and Netzwerke als Triebkräfte der Wirtschaft. Ansprüche, Hoffnungen and die Wirklichkeit. Maier, J. *Bedeutung kreativer Milieus für die Regional- and Landesentwicklung*. Arbeitsmaterialien zur Raumordnung and Raumplanung der Universität Bayreuth, 153, Bayreuth, 65-84.
- Heidenreich, Martin (1996). Beyond Flexible Specialization: The Rearrangement of Regional Production Orders in the Emilia-Romagna and Baden-Württemberg. *European Planning Studies*, 4: 401-419.
- Jansen, D., Schubert, K. (eds.) (1995). *Netzwerke and Politikproduktion. Konzepte, Methoden, Perspektiven*. Marburg: Schueren.

- Jochimsen, R. (1966). *Theorie der Infrastruktur. Grundlagen der marktwirtschaftlichen Entwicklung*. Tübingen: Mohr.
- Jones, C., Hesterly, W.S. & Borgatti, S. (1997) A General Theory of Network Governance: Exchange Conditions and Social Mechanisms. *Academy of Management Review*, 22(4): 911-945.
- Jung, H.U., Beckmann, K. & Brandt, A. (1998). *Wirtschaftsreport Hannover Region 1998. Der Wirtschaftsraum Hannover im überregionalen Wettbewerb*, Hannover: Kommunalen Großraumverband Hannover.
- Kadushin, C. (1968). Power, Influence and Social Circles. *American Sociological Review*, 33: 685-699.
- Kappelhoff, P. (1987). Cliquenanalyse. Die Bestimmung von intern verbundenen Teilgruppen in sozialen Netzwerken. Pappi, F. U. (ed.) *Methoden der Netzwerkanalyse. Band 1: Techniken der empirischen Sozialforschung*. München: Oldenbourg, 39-63.
- Knuth, M., Latniak, E. (1991). "Neue" Formen der Unternehmenskooperation - Innovationsschancen für Regionen, Erosionsgefahr für industrielle Beziehungen? Hilber, J., Kleinaltenkamp, M., Nordhausen, J., Janz, J., Widmaier, B. (eds.) *Neue Kooperationsformen in der Wirtschaft - Können Konkurrenten Partner werden?* Opladen: Leske + Budrich, 147-170.
- König, W. et al. (1997). Vernetzung als Wettbewerbsfaktor. Antrag des DFG-Sonderforschungsbereiches, Internet: <http://www.vernetzung.de>.
- Krumbein, W. (1994a). Ökonomische and politische Netzwerke in der Region. Beiträge zur internationalen Debatte, Münster and Hamburg: Lit.
- Maier, J. (ed.) (1997). Inner- and transurbane Netzwerke als Ansatzpunkt für kreative Milieus. *Arbeitsmaterialien zur Raumordnung and Raumplanung*, 159, Bayreuth.
- Marin, B., Mayntz, R. (eds.) (1991). Policy Networks: Empirical evidence and theoretical considerations. Frankfurt/Main et al.: Campus, 334.
- Momm, A., Löckener, R., Danielzyk, R., Prieb, A. (eds) (1995). Regionalisierte Entwicklungsstrategien. Beispiele and Perspektivern integrierter Regionalentwicklung in Ost- and Westdeutschland. Bonn: Kuron, 37-49.
- Mønsted, M. (1995). Processes and structures of networks : reflections on methodology. *Entrepreneurship & Regional Development*, 7: 193-213.
- Morgan, K. (1997). The Learning Region: Institutions, Innovation and Regional Renewal. *Regional Studies*, 31.5: 491-503.
- Piore, M., Sabel, C. (1985). *Das Ende der Massenproduktion: Studie über die Requalifizierung der Arbeit and die Rückkehr der Ökonomie in die Gesellschaft*. Berlin: Wagenbach.
- Pischetsrieder, B. (1998). Arbeitsplatz Deutschland. Rede auf dem Forum des Arbeitgeberverbandes Gesamtmetall. *Frankfurter Rundschau*, 61, 18.
- Putnam, R.D. (1993). Making Democracy Work: Civic Traditions in Modern Italy. Princeton, NJ: Princeton Univ. Press.
- Putnam, R.D. (1993) Tuning in, Tuning out: The Strange Disappearance of Social Capital in America. *Political Science & Politics*, 664-683.
- Saxenian, A. (1990). Regional networks and the resurgence of Silicon Valley. *California Management Review*, 33(1): 89-112.
- Schweizer, T. (1996). *Muster sozialer Ordnung: Netzwerkanalyse als Fundament der Sozialethnologie*. Berlin: Reimer.

- Schubert, H., Fürst, D., Rudolph, A., Spieckermann, H., (2001). Regionale Akteursnetzwerke, Analysen zur Bedeutung der Vernetzung am Beispiel der Region Hannover, Opladen: Leske + Budrich (forthcoming).
- Scott, J. (1991). *Social Network Analysis: A Handbook*. London et al.: Sage.
- Sennett, R. (1998). *Der flexible Mensch. Die Kultur des neuen Capitalism*. Berlin: Berlin-Verlag.
- Siebel, W. Mayer, H.N. (1997). *Die Organisation von Innovationen. Neue Formen der politischen Steuerung. Ein Vergleich von EXPO 2000 Hannover and Internationaler Bauausstellung Emscher Park. Thesenpapier zu einem Workshop am 12.12.1997 in Hannover.*
- Simmel, G. (1968). *Soziologie*. Berlin: Duncker & Humblot, [Original 1908].
- Smelser, N.J., Swedberg, R. (eds.) (1994). *The Handbook of Economic Sociology*, Princeton, NJ et al.: Princeton Univ. Press et al.
- Toffler, A. (1987). *Die dritte Welle*. München: Goldmann.
- Uzzi, B. (1996). The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review*, 61: 674-698.
- van Waarden, Frans (1992). Dimensions and Types of Policy Networks. *European Journal of Political Research*, 21: 31-52.
- Wallerstein, I. (1979). Aufstieg and künftiger Niedergang des kapitalistischen Weltsystems. Senghaas, D. (ed.) *Kapitalistische Weltökonomie. Kontroversen über ihren Ursprung and ihre Entwicklungsdynamik*. Frankfurt/Main: Suhrkamp, 31-67.
- Wasserman, S. Faust, K. (1994). *Social Network Analysis: Methods and Applications*. Cambridge et al.: Cambridge University Press
- Williamson, O. E. (1994). Transaction cost economics and organization theory, Smelser, N.J., Swedberg, R. (eds.) (1994). *The Handbook of Economic Sociology*, Princeton, NJ et al.: Princeton Univ. Press et al.

# The Prestige of Ph.D. Granting Departments of Sociology: A Simple Network Approach

**Robert A. Hanneman**

*Dept. of Sociology*

*University of California, Riverside*

*Data on the Ph.D. origins of faculty employed in Ph.D. granting departments of Sociology at 1993 and 1999 are examined. Treating these data as an exchange network allows simple network analysis tools to be used to rank programs in terms of adjacency, centrality, and efficient network size. Considerable inequality in the distribution of placement and adjacency at both years is found. Prestige elite communities are identified in patterns of reciprocated hiring. There are substantial correlations in rankings by different aspects of network position, over time, and between network and survey research methods. However, network methods allow a more complex and interesting portrait of the prestige hierarchy that is more clearly structural and positional, rather than perceptual.*

## INTRODUCTION

Rankings of Ph.D. granting programs in academic disciplines have long been of considerable interest to people embedded in these structures. Lately, they seem to have become a matter of some practical importance. Rankings are used by contending parties in resource allocation battles within universities, and may be important in strategic decision-making about organizational development (Markovsky, 2000). Rankings are a standard against which competitive performance of units in their organizational fields are evaluated, i.e. comparisons of sociology programs competing against one another for “niche space.” Relative standing is one way that faculty evaluate their efforts to improve program quality. Rankings may be of some significance in recruiting new faculty, attracting students and securing financial backing for programs or even entire campuses.

Despite their practical importance, the reliability and validity of rankings of graduate programs are easy to question. Different studies vary in the supposed underlying trait along which units are ranked; “quality of faculty and training,” “research productivity,” and “prestige,” among other terms are used. While various dimensions of organizational performance are, no doubt, substantially correlated, different operational definitions can yield “just meaningful” differences in results (compare, for example, Markovsky, 2000 and Keith, 2000).

There are also differences in methodology across ranking studies. The two most common approaches to producing data for ranking are survey and archival methods. Survey methods are probably better able to capture attitudes and perceptions; such perceptions are critical, for they are the basis on which actors act. The bases for variation in these perceptions of the relative standing of departments may, however, be somewhat fuzzy, even with careful attention to question construction. Surveys, of course, reflect the attitudes and/or knowledge of those surveyed, and need always be carefully examined for sampling and response biases. Archival approaches, such as counting

published articles or citations are probably more reliable, but tend to be rather narrow — capturing only one or a few of the dimensions of performance variation.

This paper proposes an alternative method for ranking the standing of departments. By applying a few simple ideas from social network analysis to data on the flows of faculty among departments, the departments may be ranked as a prestige hierarchy. This approach not only explicitly recognizes that rankings are inherently relational (rather than an attribute of each individual), but allows us to examine some additional qualitative aspects of the structure of this social hierarchy.

### ***A network approach to prestige rankings***

Stratification on the basis of honor or prestige is observable in patterns of who defers to whom in interactions. The hiring and retention by members of one institution of a student trained at another may be viewed as such an act of deference. The members of the hiring institution are acknowledging that the sending institution is capable of providing a resource that they value — whatever the basis of this valuation. A status hierarchy is observable, then, if there are consistent asymmetric tendencies in the relative frequencies with which such gestures occur. If PhDs produced by department A are employed by department B, B is showing deference to A. Sometimes these gestures may be reciprocated — A and B mutually acknowledge that they are peers. Sometimes the gestures are not — in which case both parties are acknowledging the higher standing of A.

The presence of individuals trained at institutions on the faculties of others form an exchange network, similar in some ways (and different in others) to trading and kinship tie networks. The patterns of ties in the exchange network need not form a simple hierarchy. Ties might be distributed randomly; there may be bounded status communities or classes; or, there may be multiple orthogonal or oblique hierarchies. The data collection and analytic strategies of survey and archival/attribute studies do not explicitly acknowledge the relational or exchange nature of rankings, and implicitly assume simple hierarchies. Data on the relations between pairs of departments and the use of simple tools for the analysis of exchange networks allow us see patterns of status giving as a result of social exchange, and to recognize that inequality may be structured in more complex ways.

Data for the analyses below were taken from the American Sociological Association *Guide to Graduate Departments* (A.S.A. 1993, 1999) at two years. The earlier date was chosen to allow comparison of the network analysis results to those of the National Research Council (N.R.C., 1995); the latter year was added to examine stability and change. At each year, data were collected on the Ph.D. granting institution of each member of the “full-time regular” faculty of each Ph.D. granting institution. Only United States universities were included, and a small number of faculty at U.S. institutions who received higher degrees abroad are excluded. These data are not perfect. Some institutions list relatively small core faculties and large numbers of affiliated faculty (which are excluded here). Departments no doubt differ in the relationship of these affiliated faculty to the departments. Some departments list “instructors,” “visiting,” and emeritus faculty, which we have excluded. We have no way of verifying the status of those listed as regular faculty. And, of course, there are simple errors of commission, omission, and incorrect or incomplete data on where the Ph.D. was granted.

### ***Departmental rankings by network prominence***

If a department places its graduates at many other universities, it achieves visibility and prominence. A department that has many placements is being more widely acknowledged as a worthy exchange partner. The simplest measure of the relative standing of a department then is its outflow in the network of placement exchanges among departments. The first column in Table 1 shows the number of Ph.D.s from each graduate program in sociology that are listed as faculty in other Ph.D. departments (self-placements are excluded from these counts).

**Table 1.** Rankings of U.S. Ph.D. Sociology Programs, 1993 and 1999

| Program        | Placement<br>(number) | Adjacency<br>(number) | Centrality<br>1993 | Holes<br>1993 | Centrality<br>1999 | Holes<br>1999 | NRC<br>Fac.* | NRC<br>Train.* |
|----------------|-----------------------|-----------------------|--------------------|---------------|--------------------|---------------|--------------|----------------|
| Chicago        | 1 (155)               | 2 (62)                | 1                  | 3             | 3                  | 3             | 1            | 2              |
| Harvard        | 4 (125)               | 5 (57)                | 2                  | 5             | 4                  | 5             | 7            | 12             |
| Wisconsin      | 2 (137)               | 1 (72)                | 3                  | 1             | 1                  | 1             | 2            | 1              |
| Berkeley       | 3 (134)               | 2 (62)                | 4                  | 2             | 2                  | 2             | 3            | 11             |
| Michigan       | 5 (114)               | 4 (58)                | 5                  | 4             | 5                  | 4             | 4            | 3              |
| Stanford       | 9 (65)                | 10 (39)               | 6                  | 14            | 7                  | 7             | 8            | 7              |
| Columbia       | 6 (78)                | 6 (47)                | 7                  | 6             | 17                 | 6             | 15           | 20             |
| Washington     | 8 (68)                | 8 (44)                | 8                  | 8             | 9                  | 16            | 10           | 8              |
| Princeton      | 17 (36)               | 21 (24)               | 9                  | 23            | 13                 | 18            | 13           | 18             |
| Cornell        | 11 (51)               | 9 (41)                | 10                 | 9             | 11                 | 10            | 35           | 25             |
| N. Carolina    | 7 (71)                | 6 (47)                | 11                 | 7             | 6                  | 9             | 6            | 4              |
| Pennsylvania   | 15 (47)               | 11 (38)               | 12                 | 10            | 8                  | 12            | 11           | 9              |
| Yale           | 11 (51)               | 12 (37)               | 13                 | 12            | 18                 | 19            | 19           | 28             |
| Northwestern   | 13 (50)               | 17 (31)               | 14                 | 17            | 24                 | 17            | 9            | 10             |
| Johns Hopkins  | 22 (26)               | 22 (23)               | 15                 | 22            | 32                 | 25            | 17           | 14             |
| Michigan St.   | 19 (31)               | 18 (25)               | 16                 | 19            | 21                 | 33            | 42           | 41             |
| Minnesota      | 16 (46)               | 13 (36)               | 17                 | 13            | 10                 | 15            | 24           | 23             |
| N.Y.U.         | 25 (23)               | 24 (19)               | 18                 | 28            | 28                 | 27            | 21           | 33             |
| Texas          | 14 (48)               | 14 (34)               | 19                 | 15            | 16                 | 11            | 16           | 13             |
| Indiana        | 10 (52)               | 16 (32)               | 20                 | 16            | 14                 | 8             | 12           | 5              |
| Illinois       | 21 (27)               | 22 (23)               | 21                 | 21            | 35                 | 35            | 29           | 26             |
| U.C.L.A.       | 18 (32)               | 18 (25)               | 22                 | 20            | 23                 | 13            | 5            | 6              |
| Albany         | 38 (15)               | 34 (15)               | 23                 | 35            | 74                 | 41            | 30           | 24             |
| Vanderbilt     | 34 (17)               | 31 (16)               | 24                 | 34            | 33                 | 34            | 27           | 35             |
| Washington St. | 27 (21)               | 26 (18)               | 25                 | 26            | 19                 | 20            | 32           | 28             |
| Penn. State    | 24 (24)               | 24 (19)               | 26                 | 31            | 15                 | 21            | 18           | 15             |
| Arizona        | 30 (19)               | 31 (16)               | 27                 | 33            | 25                 | 22            | 14           | 17             |
| Duke           | 22 (26)               | 18 (25)               | 28                 | 18            | 22                 | 24            | 20           | 16             |
| Brandeis       | 42 (13)               | 40 (11)               | 29                 | 44            | 44                 | 32            | 60           | 59             |
| Stony Brook    | 30 (19)               | 34 (15)               | 30                 | 36            | 27                 | 26            | 25           | 18             |
| U.C.S.B.       | 30 (19)               | 34 (15)               | 31                 | 32            | 37                 | 29            | 23           | 27             |
| Brown          | 27 (21)               | 30 (17)               | 32                 | 29            | 30                 | 23            | 38           | 22             |
| Binghamton     | 61 (6)                | 58 (6)                | 33                 | 59            | 47                 | 49            | 34           | 39             |
| Boston U.      | 44 (12)               | 44 (10)               | 34                 | 45            | 54                 | 50            | 44           | 45             |
| Iowa           | 26 (22)               | 26 (18)               | 35                 | 27            | 46                 | 37            | 40           | 34             |
| Tennessee      | 48 (10)               | 47 (9)                | 36                 | 52            | 69                 | 67            | 79           | 87             |
| Florida        | 46 (11)               | 40 (11)               | 37                 | 42            | 34                 | 46            | 43           | 43             |
| Massachusetts  | 30 (19)               | 26 (18)               | 38                 | 24            | 52                 | 30            | 39           | 37             |
| Boston Col.    | 78 (2)                | 78 (2)                | 39                 | 85            | 98                 | 83            | 55           | 53             |
| Ohio St.       | 20 (49)               | 14 (34)               | 40                 | 11            | 12                 | 14            | 25           | 21             |
| Oregon         | 34 (17)               | 31 (16)               | 41                 | 30            | 36                 | 36            | 56           | 64             |
| Connecticut    | 57 (7)                | 58 (6)                | 42                 | 58            | 73                 | 60            | 49           | 61             |
| U.C.S.D.       | 54 (8)                | 49 (8)                | 43                 | 50            | 43                 | 39            | 22           | 30             |
| U.C.S.C.       | 62 (5)                | 60 (5)                | 44                 | 61            | 48                 | 44            | 53           | 55             |
| Florida St.    | 38 (15)               | 40 (11)               | 45                 | 40            | 26                 | 31            | 36           | 32             |
| Wayne St.      | 67 (4)                | 66 (4)                | 46                 | 66            | 84                 | 74            | ---          | ---            |
| Missouri       | 34 (17)               | 37 (13)               | 47                 | 38            | 29                 | 47            | 63           | 65             |
| Iowa St.       | 37 (16)               | 44 (10)               | 48                 | 47            | 53                 | 48            | 61           | 38             |
| Kentucky       | 29 (20)               | 26 (18)               | 49                 | 25            | 20                 | 28            | 54           | 57             |
| Kansas         | 40 (14)               | 39 (12)               | 50                 | 39            | 39                 | 40            | 66           | 65             |
| Notre Dame     | 67 (4)                | 66 (4)                | 51                 | 66            | 72                 | 66            | 46           | 50             |
| Purdue         | 42 (13)               | 37 (13)               | 52                 | 37            | 40                 | 38            | 52           | 54             |
| Virginia       | 62 (5)                | 60 (5)                | 53                 | 61            | 59                 | 57            | 47           | 52             |
| Emory          | 69 (3)                | 69 (3)                | 54                 | 74            | 79                 | 53            | ---          | ---            |
| U.W. Mil.      | 88 (1)                | 87 (1)                | 55                 | 85            | ---                | ---           | ---          | ---            |
| Tulane         | 51 (9)                | 53 (7)                | 56                 | 53            | 109                | 80            | 72           | 75             |
| Nebraska       | 40 (14)               | 49 (8)                | 57                 | 57            | 41                 | 65            | 67           | 49             |

| Program          | Placement<br>(number) | Adjacency<br>(number) | Centrality<br>1993 | Holes<br>1993 | Centrality<br>1999 | Holes<br>1999 | NRC<br>Fac.* | NRC<br>Train.* |
|------------------|-----------------------|-----------------------|--------------------|---------------|--------------------|---------------|--------------|----------------|
| U.C.S.F.         | 78 (2)                | 78 (2)                | 58                 | 78            | 87                 | 72            | 50           | 48             |
| U.C.I.           | 54 (8)                | 53 (7)                | 59                 | 51            | 55                 | 53            | ---          | ---            |
| Hawaii           | 78 (2)                | 78 (2)                | 60                 | 78            | 93                 | 80            | 76           | 86             |
| U.C.D.           | 62 (5)                | 60 (5)                | 61                 | 63            | 61                 | 60            | ---          | ---            |
| Buffalo          | 51 (9)                | 47 (9)                | 62                 | 46            | 50                 | 55            | 74           | 74             |
| Syracuse         | 62 (5)                | 60 (5)                | 63                 | 63            | 70                 | 68            | 58           | 51             |
| U.C.R.           | 62 (5)                | 60 (5)                | 64                 | 59            | 67                 | 60            | 27           | 35             |
| U.S.C.           | 48 (10)               | 49 (8)                | 65                 | 48            | 65                 | 50            | 40           | 44             |
| American         | 78 (2)                | 78 (2)                | 66                 | 85            | 78                 | 83            | 80           | 82             |
| Pittsburgh       | 54 (8)                | 49 (8)                | 67                 | 48            | 56                 | 53            | 59           | 62             |
| New School       | 57 (7)                | 53 (7)                | 68                 | 54            | 51                 | 42            | ---          | ---            |
| Colorado         | 46 (11)               | 40 (11)               | 69                 | 40            | 45                 | 55            | 56           | 60             |
| Temple           | 69 (3)                | 69 (3)                | 70                 | 74            | 64                 | 59            | 61           | 68             |
| Cincinnati       | 69 (3)                | 69 (3)                | 71                 | 69            | 104                | 74            | 87           | 94             |
| Maryland         | 69 (3)                | 69 (3)                | 72                 | 74            | 58                 | 44            | 33           | 31             |
| Illinois - Chic. | 69 (3)                | 69 (3)                | 73                 | 78            | 68                 | 88            | 45           | 58             |
| S. Illinois      | 57 (7)                | 53 (7)                | 74                 | 54            | 75                 | 73            | 78           | 83             |
| L.S.U.           | 48 (10)               | 53 (7)                | 75                 | 56            | 38                 | 57            | 65           | 63             |
| Utah             | 51 (9)                | 60 (5)                | 76                 | 63            | 57                 | 70            | 83           | 78             |
| C.U.N.Y.         | 69 (3)                | 69 (3)                | 77                 | 69            | 63                 | 60            | 37           | 46             |
| Nevada-Reno      | 88 (1)                | 87 (1)                | 78                 | 85            | ---                | ---           | ---          | ---            |
| U.N.L.V.         | 88 (1)                | 87 (1)                | 79                 | 85            | 90                 | 100           | ---          | ---            |
| Texas A&M        | 69 (3)                | 69 (3)                | 80                 | 74            | 49                 | 60            | 50           | 42             |
| Oklahoma St.     | 88 (1)                | 87 (1)                | 81                 | 85            | 77                 | 74            | 95           | 95             |
| Case Western     | 57 (7)                | 66 (4)                | 82                 | 66            | 82                 | 80            | ---          | ---            |
| Utah St.         | 78 (2)                | 87 (1)                | 83                 | 85            | 92                 | 88            | 92           | 84             |
| Akron            | 88 (1)                | 87 (1)                | 84                 | 85            | 105                | 88            | 84           | 77             |
| Rutgers          | 78 (2)                | 78 (2)                | 85                 | 78            | 66                 | 70            | 31           | 40             |
| Delaware         | 78 (2)                | 78 (2)                | 86                 | 78            | 103                | 88            | 69           | 71             |
| Mississippi St.  | 88 (1)                | 87 (1)                | 87                 | 85            | 94                 | 88            | 86           | 80             |
| Georgia          | 44 (12)               | 44 (10)               | 88                 | 43            | 42                 | 43            | 47           | 46             |
| Colorado St.     | 78 (2)                | 78 (2)                | 89                 | 78            | 60                 | 83            | 81           | 80             |
| New Mexico       | 69 (3)                | 69 (3)                | 90                 | 69            | 86                 | 83            | ---          | ---            |
| Bowling Green    | 69 (3)                | 69 (3)                | 91                 | 69            | 80                 | 74            | 76           | 76             |
| N. Carolina St.  | 88 (1)                | 87 (1)                | 93                 | 85            | 31                 | 69            | 64           | 56             |
| W. Michigan      | 78 (2)                | 78 (2)                | 93                 | 78            | 83                 | 74            | 85           | 79             |
| Oklahoma         | 88 (1)                | 87 (1)                | 93                 | 85            | 101                | 100           | 89           | 89             |
| Montana          | 88 (1)                | 87 (1)                | 94                 | 85            | ---                | ---           | ---          | ---            |
| Denver           | 88 (1)                | 87 (1)                | 94                 | 85            | 88                 | 88            | 90           | 91             |
| Northeastern     | 88 (1)                | 87 (1)                | 96                 | 85            | 108                | 88            | 71           | 67             |
| Arizona St.      | 88 (1)                | 87 (1)                | 96                 | 85            | 106                | 88            | 73           | 73             |
| Kansas St.       | 102 (0)               | 102 (0)               | 96                 | 103           | 112                | 100           | ---          | ---            |
| Virginia Poly.   | 88 (1)                | 87 (1)                | 96                 | 85            | 62                 | 83            | ---          | ---            |
| S. Carolina      | 102 (0)               | 102 (0)               | 96                 | 103           | 95                 | 100           | ---          | ---            |
| Georgia St.      | 102 (0)               | 102 (0)               | 96                 | 103           | 71                 | 88            | 94           | 92             |
| Kent St.         | 102 (0)               | 102 (0)               | 96                 | 103           | 96                 | 88            | 88           | 90             |
| New Hampshire    | 88 (1)                | 87 (1)                | 96                 | 85            | 76                 | 74            | 70           | 69             |
| Rennsaler        | 102 (0)               | 102 (0)               | 96                 | 103           | ---                | ---           | ---          | ---            |
| North Texas      | 102 (0)               | 102 (0)               | 96                 | 103           | 97                 | 100           | 92           | 85             |
| Portland St.     | 78 (2)                | 78 (2)                | 96                 | 78            | 116                | 100           | ---          | ---            |
| Fordham          | 102 (0)               | 102 (0)               | 96                 | 103           | 107                | 100           | 82           | 87             |
| Carnegie Mellon  | 102 (0)               | 102 (0)               | 96                 | 103           | 91                 | 100           | ---          | ---            |
| Texas Women's    | 102 (0)               | 102 (0)               | 96                 | 103           | 102                | 88            | ---          | ---            |
| Miami            | 102 (0)               | 102 (0)               | 96                 | 103           | 100                | 88            | ---          | ---            |
| S. Dakota St.    | 102 (0)               | 102 (0)               | 96                 | 103           | 99                 | 100           | ---          | ---            |
| Catholic         | 102 (0)               | 102 (0)               | 96                 | 103           | 111                | 100           | 92           | 92             |
| Loyola           | 102 (0)               | 102 (0)               | 96                 | 103           | 89                 | 100           | 68           | 70             |

\* National Research Council (1995) rankings of "faculty quality" and "effectiveness of graduate training."



Not surprisingly, there is considerable inequality of the distribution of placements. If we include self-placements, the top four institutions (i.e. Chicago, Wisconsin, Berkeley, and Harvard) account for about one-quarter (25.8%) of all placements; the top twelve institutions account for more than half (51.6%). The gini concentration ratio for the distribution is .681 — more similar to the distribution of wealth in the United States than to the distribution of income.

Large numbers of placements certainly increase visibility, and indicate that an institution has a “product” that is valued by others. But, some adjustments to these figures can provide some additional insights. In the next column of table one, we show the number of institutions to which each institution is adjacent (excluding self-ties). That is, we pay no attention to how many placements there may be at another institution, only the presence or absence of a placement tie. This adjustment is consistent with the idea that status is accorded “qualitatively,” and that a second, third, or more placements on the same faculty add little to the prestige of the sending institution — ties are simply present or absent. This adjustment “penalizes” institutions that have a pattern of placing many students at few schools and favors those that place more broadly. We would argue that a broader placement pattern promotes visibility and signals more widespread acceptance of the standing of a department in the community.

Among schools with similar levels of total placements, there are some notable differences in “efficiency” (e.g. the ratio of adjacencies to total placements). Among the schools that are highly ranked by total placements, Pennsylvania and Minnesota move up noticeably when efficiency is taken into account; Indiana, Princeton, and Northwestern fall. The rank ordering of departments by placement and by adjacency are quite similar, overall. However, the differences can highlight a qualitative dimension of difference among institutions that are of the same general rank.

Not all placements or adjacencies are equal in the status they confer on the sending school. Adding a “low prestige” institution to one’s placement network does not contribute to one’s own standing as much as adding a tie to a “high prestige” institution. In the third column of figures in the table above, we make a further adjustment by considering the networks of the schools to which each school sends its students. The procedure used follows Bonacich (1972; Philip Bonacich also assisted the author in calculating the values used here). Eigenvectors are extracted from the directed adjacency matrix, and prominence weights assigned to each case by their loadings on the first “factor.” The rank of each department is then constructed as the sum of its adjacencies weighted by the loadings of the programs to which it is adjacent. The loadings on the first eigenvector rank departments according to their standing on the first dimension of what may be a multi-dimensional status structure. The weighted scores then rank departments according to the degree to which they have sent graduates to other departments that rank highly along the first dimension of status. Departments may achieve high rank by being tied to the “right” other departments; they may have less prestige, despite many placements, if they do not place at the “right” other institutions.

The overall rank ordering by this “centrality” approach is, again, similar. But, local differences can be quite revealing qualitatively. By comparing simple adjacency to centrality ranks among schools near the top of our list, we see that some schools show a marked propensity to have ties to the “in” crowd: Princeton, Johns Hopkins, N.Y.U., Stanford, and Harvard. In contrast, there are a number of other top schools that have fewer ties to “in” schools than we would expect on the basis of their high overall adjacency: North Carolina, Texas, Indiana, and Minnesota.

Another aspect of the location of institutions within the exchange network is indexed in the column of the table labeled “holes.” Suppose that institution “A” has three placements, and sends graduates to schools that also send graduates to one another. Clearly, its three peers are recognizing institution “A” as worthy — but its position relative to all other schools is somewhat ambiguous. Compare this case to institution “B” which also has three placements. Institution “B’s” graduates, however, go to three schools that do not send graduates to one another. We might say that the local

placement network of “B” is more efficient and provides more direct evidence of ranking relative to a larger part of the community than does the local placement network of “A.” Ron Burt (1992), would characterize the network of institution “A” as lacking “structural holes” (i.e. empty spaces or non-connections among neighbors of the focal node), and would see institution “A’s” network as less efficient. Actor “B’s” network, in contrast, has many structural holes, and this results in a network with greater autonomy and potentially wider reach. The “holes” index in the table adjusts the adjacencies of institutions to “penalize” those that lack structural holes (Borgatti, et al., 1999).

The overall rankings on the basis of Burt’s efficient network size (“holes”) are strongly correlated with the other approaches. Local differences among top schools, however, are quite interesting. Princeton, Stanford, N.Y.U, and Johns Hopkins rank much lower in efficient network size than we would expect on the basis of adjacency. These institutions (identified earlier among as having ties to the “in crowd”) are rather deeply “embedded” in a community of institutions that have a substantial volume of reciprocated ties. In contrast, North Carolina, Minnesota, Texas, and Indiana have networks that have more structural holes than we would otherwise expect – that is, they are relatively less embedded.

### *The stability of rankings*

So far, we have been examining the status hierarchy of departments at 1993. Table 1 also shows the results of ranking institutions by centrality, and efficient size (holes) in 1999. Table 2 shows correlations of the centrality and holes measures for both years, as well as correlations with the 1993 National Research Council rankings.

**Table 2.** Correlations of Rankings

|                      | 1     | 2     | 3     | 4     | 5     | 6     | 7     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| 1. Placement 1993    | 1.000 |       |       |       |       |       |       |
| 2. Adjacency 1993    | .995  | 1.000 |       |       |       |       |       |
| 3. Centrality 1993   | .927  | .930  | 1.000 |       |       |       |       |
| 4. Holes 1993        | .990  | .997  | .915  | 1.000 |       |       |       |
| 5. Centrality 1999   | .909  | .909  | .830  | .903  | 1.000 |       |       |
| 6. Holes 1999        | .956  | .961  | .908  | .960  | .943  | 1.000 |       |
| 7. NRC faculty 1993  | .840  | .846  | .852  | .839  | .825  | .889  | 1.000 |
| 8. NRC training 1993 | .852  | .849  | .843  | .842  | .840  | .897  | .974  |

Spearman correlations of ranks, all significant at  $p < .01$ , one-tail,  $n=94$

The correlations among various rankings are high, but far from perfect. If we assume that the data are quite reliable, then the true “stability” of the centrality ranking is only .83 over a six-year period. This figure suggests rather substantial mobility over a fairly short period of time. Among the top twenty schools at 1993, several experienced substantial upward mobility (e.g. Indiana, North Carolina, Pennsylvania, Texas); several suffered rather sharp declines in network centrality rank (e.g. Johns Hopkins, N.Y.U., Columbia, Northwestern). Rapid changes are perhaps somewhat surprising, as our method is based on the training institutions of all faculty at a given institution (rather than recent hires), and a very large proportion of all faculty are “stayers.”

Rankings by network methods are also fairly strongly correlated, overall, with attitude survey results. But, again, the association is far from perfect. Indeed, comparing rank-orderings at 1993 by the centrality and survey methods, there are some quite striking individual differences among top schools. A number of top schools are somewhat more highly ranked in the survey (effectiveness of training dimension) than their centrality in placement networks would suggest (e.g. Indiana, Texas, North Carolina, Pennsylvania, Northwestern). A number of other top schools have much

higher placement centrality than one would predict on the basis of attitudes about the quality of the training they provide (e.g. Michigan State, N.Y.U., Cornell, Yale, Columbia).

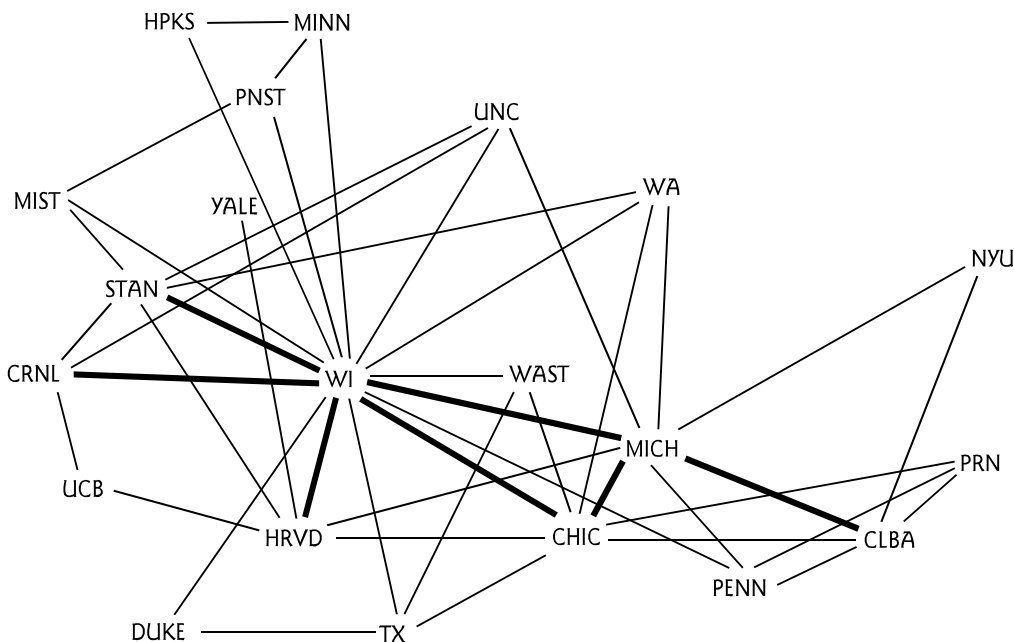
### *Is there a prestige elite?*

The various rankings in table one suggest considerable inequality in the distribution of prestige, and a fairly clear rank ordering and hierarchy. But, are the differences among the schools simply matters of degree, or is there a “class structure” of bounded status communities?

One simple approach (but note that others might yield somewhat different pictures) is to examine the distribution of reciprocated ties. The presence of a reciprocated tie (e.g. there are faculty with Berkeley Ph.D.s at Wisconsin and *vice versa*), signals that there is recognition of equal standing. A “status community” might be defined as a group of institutions that have reciprocated placements. There are a number of ways to identify such groupings. We will use the “strongest” definition of a community — a maximal clique. Our choice of method here may draw sharper bounds between the elite and the masses than other methods might. Nonetheless, the results do suggest a “community” of elite institutions that has some degree of closure and separation from the masses at both 1993 and 1999. The results also suggest considerable mobility and change within the elite.

In 1993 there were twenty-one cliques of size three or more (i.e. sets of schools each of which had faculty from each other school), involving twenty-one institutions – all highly ranked. Five of these cliques contained four schools, the remaining sixteen cliques contained only three. There was a similar pattern at 1999. In this year, there were also twenty-one cliques (sixteen of size three and five of size four), involving sixteen institutions. Again, all of the schools involved in cliques of reciprocated hiring were among those highly ranked in table one.

All of the cliques identified in both years have some degree of overlap with other cliques (e.g. one clique at 1999 is UCLA, Berkeley, and Northwestern; another is UCLA, Berkeley, and Stanford. These two cliques overlap because they have two members in common). We may index the “close-

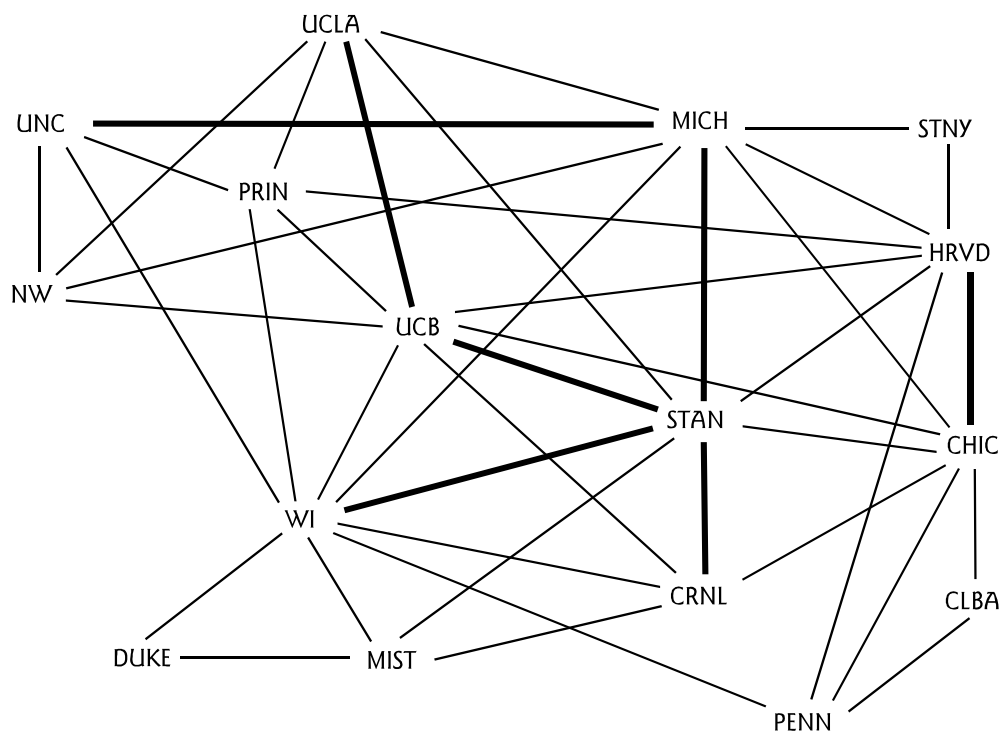


**Figure 1.** Clique structures based on reciprocal placements 1993

ness” or similarity of institution’s positions within the elite by how many times each pair are members of the same cliques. These patterns of closeness are visualized in Figures 1 and 2, below.

In both 1993 and in 1999, all the cliques of reciprocated placement are among highly ranked institutions, and all cliques are joined by one or more overlapping memberships. The overall stratification structure could be described as having a bounded elite community and “masses,” members of which have limited connection to one another. Three considerations soften this conclusion somewhat. First, the prestige elites in the two years are fairly large (21 and 16 institutions) relative to the size of the population (113 and 109). Second, there are a very substantial number of faculty at elite schools who received their degrees outside of this group. Third, there is a substantial amount of mobility into (and out of) the elite over a relatively short (6 year) period.

There are some rather remarkable differences in the structure of the elite networks at 1993 and 1999. The number of schools in the elite community declined substantially (from 21 to 16), suggesting, perhaps, wider inequality in the recruiting patterns in the discipline as a whole. At the same time, however, the structure of the elite community became both denser and less centralized. The 1993 structure has a fairly clear star (Wisconsin) and inner circle (Including Michigan, Chicago, and Columbia). At 1999, three schools are almost equally central to the network (Wisconsin, Michigan, and Berkeley), and a number of others are more tightly tied to the center than was typical in 1993 (Chicago, Harvard, UCLA, Princeton). The densities of the graphs above are .236 at 1993



**Figure 2.** Clique structures based on reciprocal placements 1999

Note: One or two co-memberships in cliques indicated with a thin line; three or more co-memberships in cliques indicated by a heavy line. Directions and distances are arbitrary, and should not be interpreted. HPKS: John’s Hopkins; MINN: Minnesota; PNST: Pennsylvania State; MIST: Michigan State; UNC: University of North Carolina; WA: University of Washington; STAN: Stanford; WI: Wisconsin; CRNL: Cornell; UCB: University of California, Berkeley; HRVD: Harvard; TX: Texas; WAST: Washington State; CHIC: Chicago; MICH: Michigan; PENN: University of Pennsylvania; CLBA: Columbia; PRIN: Princeton; STNY: SUNY Stony Brook; NW: Northwestern.

and .358 at 1999. This suggests the elites are becoming more closely connected (i.e. the composition of the origins of their faculties are becoming more similar). Over the same period the graphs became less centralized. Freeman graph centralization based on in-degree is 67.6% at 1993 and 27.6% at 1999 (Borgatti, *et al.*, 1999). That is, the elite community has become more of an oligarchy and less a transitive hierarchy.

The changes in the structure of the elite community between 1993 and 1999 reflect a rather remarkable amount of upward and downward mobility. Wisconsin and Columbia big “losers” in terms of their centrality within the elite (number of overlapping clique memberships). Eight institutions that were in the elite at 1993 fell out of it by 1999 (Washington, Texas, Minnesota, Penn. State, Washington State, Johns Hopkins, Yale, and N.Y.U.). Stanford and Berkeley (members at 1993) and UCLA (not a member at 1993) experienced the most dramatic increases in their centrality within the elite; several other institutions moved up somewhat (Cornell, North Carolina, Pennsylvania, Princeton, and Duke). Two schools were upwardly mobile into the elite: Northwestern and Stony Brook.

### Conclusions

The application of some basic ideas from social networks to the problem of the prestige of graduate programs of sociology generates rankings that differ somewhat from other methodologies. Rankings based on networks of personnel exchange have some appeal relative to attitude survey or productivity counts approaches. The act of inviting a person from another “tribe” to join one’s own “tribe” involves rational and irrational motives, and may be tied both to attributes of the individual and attributions about the individual because of their origin. The results here should not be read to invalidate those of other approaches. Our approach, however, is explicit in recognizing prestige ranking as the behavioral realization of processes of social exchange — positions with strong theoretical priors in our discipline.

The network approach clearly offers more, not just “different” insights is in describing the shape of the social hierarchy. As they have been applied in this area of study, survey and productivity counts approaches tend to treat social hierarchies as gradational. Exchange network approaches also allow ranking of individuals and can be used to describe the degree of inequality, as we have done in Table 1. They can also be used to describe more qualitative aspects of the structure of inequality. The existence of a bounded elite, and the changes in its structure between 1993 and 1999 are insights not available from other approaches.

### REFERENCES

- American Sociological Association. (1993). *Guide to Graduate Departments of Sociology*. Washington, D.C.: American Sociological Association.
- American Sociological Association. (1999). *Guide to Graduate Departments of Sociology*. Washington, D.C.: American Sociological Association.
- Bonacich, Phillip. (1972). “Factoring and Weighting Approaches to Status Scores and Clique Identification,” *Journal of Mathematical Sociology* 2: 113-120.
- Borgatti, Steven, S. Everett and L. Freeman. (1999). UCINET 5.0 for Windows: Software for Social Network Analysis –User’s Guide. Natick, MA: Analytic Technologies.

- Burt, Ronald. (1992). *Structural Holes: the Social Structure of Competition*. Cambridge: Harvard University Press.
- Keith, Bruce. (2000). "Scholarship and Department Rankings Revisited," *Footnotes*, 28: 5, 8-41.
- Markovsky, Barry. (2000). "Departments Ranked by Journal Publications". *Footnotes*, 28: 2: 1-10.
- National Research Council (U.S.) (1995). Committee for the Study of Research-Doctorate Programs in the United States. *Research-Doctorate Programs in the United States: Continuity and Change*. Marvin L. Goldberger, Brendan A. Maher, and Pamela Ebert Flattau (eds.). Washington, D.C.: National Academy Press.

# The informal organizational chart in organizations: An approach from the social network analysis

**José Luis Molina**

*Divisió d'Antropologia social*

*Universitat Autònoma de Barcelona*

*In the early 20<sup>th</sup> century the Hawthorne experiments began a line of research centred on the analysis of informal relationships as a source of influence in organizational environments. The social network analysis at the present allows us to get closer to the structure of relationships in an organization in a variety of ways. Broadly speaking, this structure can resemble the informal chart. In this way it is possible to carry out a non-metaphorical analysis of the informal structures of relationships.*

## Introduction

The *Hawthorne* experiments carried out in the *Western Electric* company between 1927 and 32 demonstrated the importance of social factors in the understanding of organizational behaviour (Bonazzi, Giuseppe, 1994). The scientific organization of the Taylorist study based the increase in production on the rational design of production and on the establishment of an appropriate system of incentives. However, Elton Mayo and his collaborators demonstrated that the increase in productivity only depended in part on retributive, environmental and technical factors. Their research on psycho-social factors of motivation and productivity lead to the so called Human Relations School.

In the first study, the *Harvard* researchers concentrated on testing the productivity of a group of workers, directly manipulating their working conditions. Their main conclusion was that the existence of an amiable supervision, rather than the periods of rest or the retribution, was a key element in the explanation of the increase in productivity. This is the well known "*Hawthorne effect*": the simple fact of paying attention (by the researchers in this case) to a worker increased his or her productivity even though the environmental working conditions got worse.

The second investigation consisted in carrying out 21,000 interviews (in a population of employees of 40,000) on the workers' reasons for complaint, in a colossal effort to introduce the interview as an intervention technique in the climate of the organization.

In the third, with the collaboration of the anthropologist Lloyd Warner, the informal relationships in a room dedicated to the fabrication of telephone panels, the *Bank Wiring Room*, were investigated. This research sought to apply participant observation, which was giving such good results in small exotic populations, to the study of organizations. This research demonstrated the existence of informal dynamics of opposition and solidarity among the workers. These dynamics explained the constant maintenance of productivity despite the manipulation of the incentives system. The innovation of this study lay in the introduction of sociograms and the explanation of phenomena of political influence through the structure of relationships at the core of the organization.

The issue of the informal organizational chart leads us directly to this research, to the idea of a network of influences that are not foreseen in the rational design.

The influence of the *Hawthorne* experiments has been enormous in social sciences and in the social network analysis, which constitutes one of its sources. It is precisely the developments that have come about in the social network analysis that allow us to approach the establishment of this network of influences in a non-metaphorical way at the present.

In this article, we propose to present a panorama of the different methods that exist today for the establishment of a network of relationships in the core of an organization. This network of relationships resembles the “informal organizational chart”, on assuming that the phenomena of influence are directly related to the structures of existing relationships (BRASS, Daniel J., 1984; Brass, Daniel J. and Marlene E. Burkhardt, 1992).

### Organizational chart and informal organizational chart

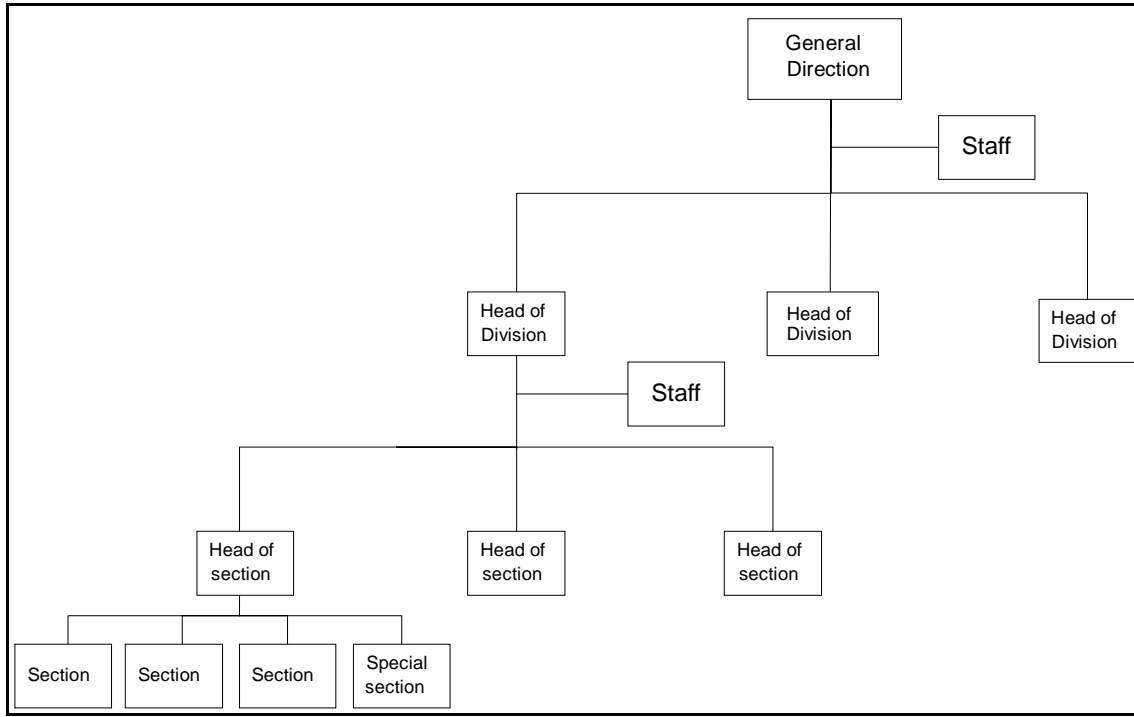
The organizational chart can be defined as the rational, conscious and institutionalised arrangement of the division of labour (Mintzberg, 1988). In fact, the image that we have of an organizational chart corresponds to the Weberian concept of bureaucratic organization (Weber, 1969), according to which the division of labour must be carried out through non overlapping functional divisions, with a hierarchy of coordination and control and with procedures and rules of action that guarantee formalised and impersonal relationships among its members.

We can find a good example of this kind of organization in the description that Crozier makes of the Parisian Accounting Agency (Crozier, 1965), offices depending on the Ministry of Finance, in which 4,500 persons were working at the time the research was carried out.

The basic group of the Accounting Agency was made up of 4 persons operating heavy accounting machines or verifying the calculations. These groups worked in rooms in morning and afternoon shifts under the control of inspectors. A section was constituted by around a hundred employees, with a supervisor in control. This chief also had a special section with 24 persons who took care of particular cases and general inspection and control. Each group of 10 sections was directed by a head of division, who was in charge of approximately a thousand employees. The head of division had a typist and two assistants with the rank of head of section. The agency was made up of three divisions of this kind and a fourth that included all the auxiliary services: reception and dispatch of mail, new accounts, filing, equipment and supplies, maintenance, printing, etc. A fifth head of division was theoretically in control of everything, with a staff of only 12 persons, and took care of personnel and general coordination matters.



Graphically, we can represent this organization in the following way:



**Figure 1.** Simplified organizational chart of the Parisian Accounting Agency.

In fact, this conception of the organizational chart, as well as bureaucratic organizations themselves, corresponds to a certain level of development of information technologies. Indeed, the different levels of bureaucratic organization are not only justified by their control functions (incorporated in the organizational chart through special units for supervision), but also by their function in the coordination of activities, necessary for specialisation in units to increase their productivity and effectiveness. The rooms, sections and divisions are, in this case, the mechanisms that coordinate the work of thousands of employees.

To this multiplication of hierarchical levels, typical of bureaucratic organization, is added the existence of auxiliary bodies, to transport, reproduce and process information—paper in the core of the organizations: concierges, administrative clerks, secretaries... Nevertheless, the registration and distribution of documents, typing letters, creating listings, organising, filing, photocopying and even answering the telephone and mechanising data, are functions that are increasingly taken on by electronic mechanisms. Electronic mail, voice mailboxes, EDI systems (Electronic Data Interchange), electronic commerce... directly communicate suppliers and consumers of products and services and make both the intermediate levels in organizations and their auxiliary bodies unnecessary.

Although their role is fundamental, information technologies cannot totally explain the transformation that is occurring in organizations today. According to Castells (1997), this transformation is also due to the generalisation of a new organizational model that has its origins in the restructuring that occurred in capitalist businesses from the mid 70's onwards as a consequence of the erosion of profit margins. This restructuring obliged the incorporation of new production and distri-

bution strategies, which were originally born in the automotive sector (Toyota, Japan, and Volvo, Sweden). The principles of this new model, known as Toyotism, are the following:

- Zero products in storage: *just-in-time* production. This strategy requires continually adapting production to the demands of the market, avoiding warehouse costs and leading a sector of suppliers trained in the methods of the mother business.
- Zero defects: total quality. The assurance and continuous improvement of quality is added to quality control, thanks to the participation of the workers in the process.
- Horizontal organizational charts, with wide autonomy for the units and workers (*empowerment*).

These organizations are arranged, moreover, in a flexible way in networks of organizations (of suppliers, clients, normalisation) so that for the first time, the unit is not the firm or the mother organization, but the *network itself*. This network-company — continues Castells — is made up of segments of other networks with which they share objectives and means, although by definition, only partially.

This organizational paradigm centred on quality, horizontal organizational charts, the *empowerment* of the workers (participation, autonomy) is also applicable to the world of services, and recently, to public administrations themselves, which are incorporating management methods from the business world to respond to the growing social pressure for an increase in their effectiveness and efficiency (López Camps and Gadea, 1995; Osborne and Gaebler, 1994).

Once the tendency towards the reduction of the hierarchical levels in organizations has been established, along with the establishment of flexible forms of organization (management by projects, for example, typical of R+D consulting firms), we can tackle the study of the formal organizational chart and its correspondence with the informal organizational chart.

From the point of view of network analysis, the formal organizational chart defines the relationships that should exist in the core of the organization: who should speak to or communicate with whom. In the example studied above, the persons in one section do not have to interact with the persons in another section or division: this relationship is not foreseen in the design, and for a start, does not add value to the work of the organization. In fact, the hierarchical level determines to a large extent the quantity and quality (in terms of power) of the relationships. Herminia Ibarra (1992), has shown that the degree of correspondence between formal and informal organizational chart is very high. In fact, one structure cannot be understood without the other and the power strategies of the participants depend on the degree of alignment between the two structures.

Although the formal organizational chart is rarely updated, as it constitutes one of the principal means of intervention by management, it allows us to establish an initial approximation to the power map of the organization. How then, can we draw up an *informal* organizational chart?

### **The establishment of the informal organizational chart**

Analysis studies on networks in organizations have basically gathered three types of information: work relationships (*work-flow, report to*), friendship relationships (*friendship* or *expressive rela-*

tions) and advice relationships (*advice networks*). In the studies carried out by the author in different public and private organizations, information has been gathered on work, friendship and leisure networks (leisure networks being relationships outside the organization). All of this information configures the way in which a different network of relationships will be seen in the next section. Theoretically, the sum of the three networks should constitute the network of relationships of the organization—the informal organizational chart (Molina, 1995) .

The options for the establishment of the structure of relationships in an organization are the following:

1. Direct observation.
2. Sampling.
3. Informants.
4. Questionnaires on relationships.

The following is a presentation of each of the options.

### **Direct observation**

Direct observation is difficult to apply as a data gathering tool for relationships in an organization. One example will be enough to illustrate this statement:

In the analysis of the interactions of a single person for two days, the results were the following:

165 interactions — 63 on the first day and 102 on the second!

80 initiated by the person in question, 59 received, 19 "encounters in the corridor," and 7 meetings.

42 telephone conversations, 8 faxes, 105 face-to-face, and 10 letters.

77 of the interactions lasted less than a minute, 24 less than 2 minutes, 15 less than 3 ...

This example illustrates the avalanche of information that a researcher who wishes to extract relationships from direct observation would find him or herself smothered in. This observer would have to add the interactions of the 45 persons with whom they established relationships in these two days to these interactions (7,425 or more!), in order to get an overall view of the network.

Therefore, "relationships" are not observed in the sense of work relationships, friendship relationships or leisure relationships. Interactions that need to be interpreted are observed, without a doubt with the help of the same persons involved or with the help of informants, and it is necessary to abstract the data from immediate experience in categories imposed by the researcher in order to carry out the analysis.

A fast alternative to establishing an approximation to the organization network is constituted by sampling systems tested recently.

## **Sampling**

The sampling of networks is still an unresolved problem, as the methods of traditional statistics cannot be applied directly. The snowball technique is the procedure most commonly used to approach the size of a network quantitatively from sampling (Pompidou Group, 1995; Erikson and Nosanchuck, 1983; Erickson, 1981).

Patrick Doreian (Doreian and Woodard, 1994) and Ronald Burt (Burt and Ronchi, 1994) have tested methods for the establishment of the limits of a network and its internal structure.

In Ronald Burt's case, interviews were carried out for 3 days with the members of an organization of 200 persons. In the first place, informants were interviewed so that their reports overlapped due to their position in the network. 2,121 relationships were obtained from these informants. Once these reports had been analysed, the reliability of the different relationships collected was estimated through comparison among themselves. Finally, the unknown relationships were extrapolated so that it was possible to obtain a network of 24,531 relationships, with a density of 0.14%.

Without going into the details of the methodology used by Doreian and Burt, the perfection of sampling systems is one of the conditions for progress in the analysis of social networks. The obtention of reliable data is the main problem encountered by the researcher on seeking to obtain data sensitive to power relationships.

These examples are interesting because they use informants to illustrate segments or parts of the whole network. In the following section we shall study the use of informants in depth, persons who in principle can inform us about the whole of the network which is the object of the study.

## **Informants**

In 1976 Killworth and Bernard began a series of articles that investigated the accuracy of informants on the data of their social network (Killworth and Bernard, 1976). The objective of these studies was to elucidate the mental maps built up by the informants and used to guide themselves through their social network. Important principles were established in the literature generated from this line of research (Romney and Faust, 1983; Freeman, Romney and Freeman, 1987), such as, for example, that (i) the precision of the knowledge of an informant on the existing relations in a social network are directly related to his or her degree of interaction, and that, (ii) despite the fact that we tend to be mistaken in the short term on explaining who relates with whom, we are quite good at immediately reflecting relationship patterns in the long term.

One of the most important discoveries in the analysis of social networks is that the perception people have of their social network is related to their position occupied in this network. In other words, two people working in the same department of an organization for years can describe different networks. In a study carried out in 1996 in the HP factory in Sant Cugat (Barcelona), the view of the network of the two informants who we worked with was completely different. We asked each of them to organise labels that contained the names and surnames of the 144 persons who made up the R+D department at that time on a board. Once they had classified the labels by groups, in each case we asked them to draw lines that would link the labels according to three different kinds of relationships: work, friendship and leisure. The networks built up from information provided by María, a computer programmer who had arrived recently in the department but with

a very broad social activity within the organization, and 8 years seniority, are very different from those provided by Bill, an American mechanical engineer, transferred two years previously to the department to work on a project on large format *plotters*.

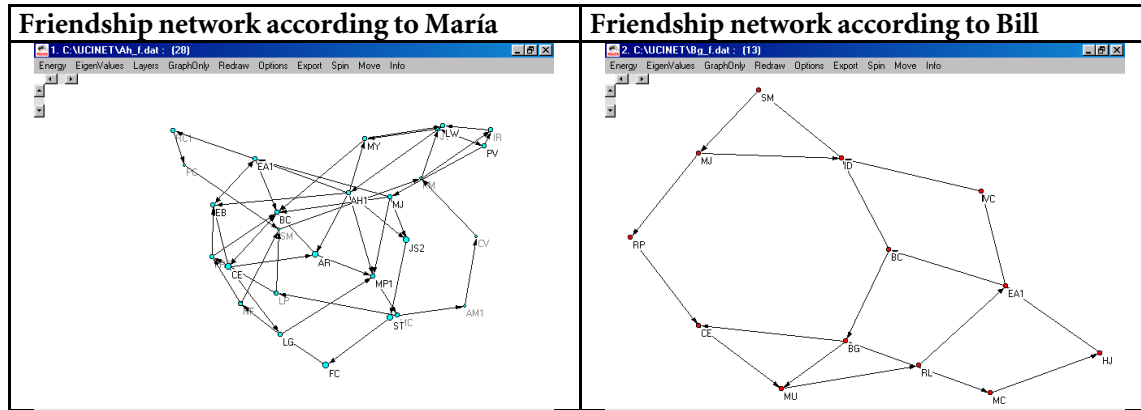


Figure 2. Reports on the friendship network in the R+D department

As we can see, the degree of information on the relationships existing in the department is much higher in María's case (AH1) than in Bill's (BG).

This discrepancy is much higher in the case of the leisure relationships. At this point we should point out that the HP factory in Sant Cugat has complete sporting installations and that these activities are promoted by the organization and permit a wide range of social contacts. María herself took care of organising many of these activities.

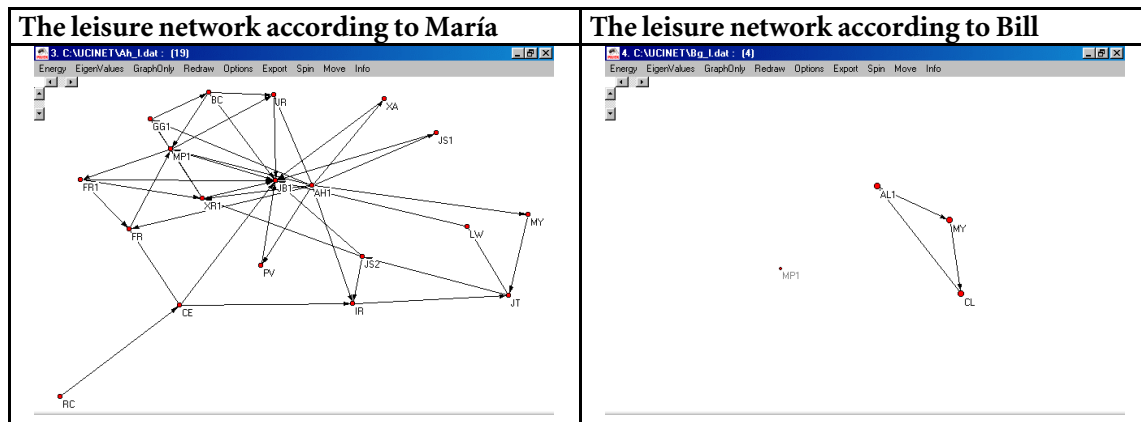


Figure 3. Reports on the leisure network.

Nevertheless, despite the large differences between the two previous networks, the work relationships indicated by the two informants were quiet similar as far as their volume was concerned.

What is the reason for this situation? We should not forget that the data gathered corresponds to an organizational environment, whereby the existing relationships are to a large extent determined by the formal organizational chart. Consequently, both María and Bill reported on the existence of a network made from their own information and by the organizational *assumptions*. In other words, unknown relationships were substituted by the relationships that the persons *should have*

had according to their place in the classificatory system of the organization. If two persons form a part of the same working team, it is assumed that they should have relationships, just as we suppose it should occur in the case of two lecturers who belong to the same university department or two students in the same class. This tendency to *fill-in-the-blanks* was indicated by Linton Freeman (1992) and can generally be applied to the view that the informants have of their personal networks. Naturally, reality is much more complicated and only the informants who have a deep understanding of the nature of the existing relationships succeed in reproducing a network which is close to reality.

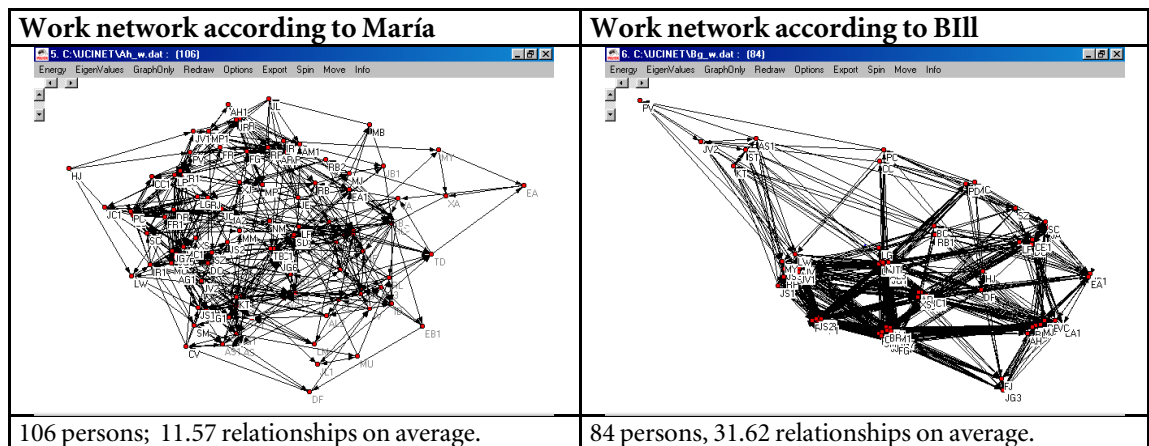


Figure 4. Reports on the work network.

This can best be observed in Bill’s case, where the perceptible groups in the sociogram correspond to the different project teams in action at that time.

Another effect has to be added to this one: the tendency to see ourselves as more central than we really are to the relationships that we have with others. Ronald Burt (1992) has indicated that when we report on relationships with various persons, among whom we are included, we tend to overestimate our capacity to connect them, in other words, our “bridging” capacity between them. Once again, reality is much more complicated and these persons usually have either direct relationships among themselves or alternatives for connection that are different from ours. This effect can be appreciated in the illustration in the following:

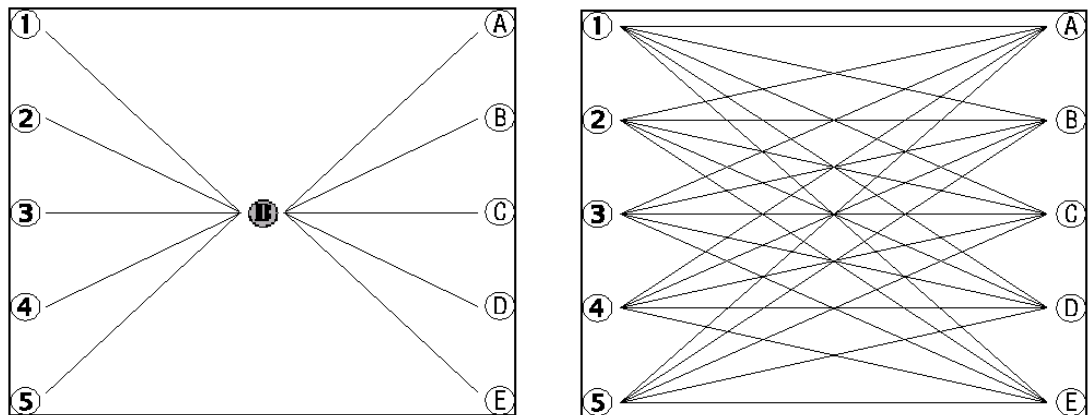


Figure 5. Reality is usually closer to the image on the right...

### Questionnaires on relationships

An alternative to the use of informants is the distribution of a questionnaire on relationships to the members of an organization. One of the problems of this method is that we usually obtain rectangular matrices. In order to analyse the matrices we have to extract those nodes that do not have relationships and build up a squared matrix. In the following example, taken from the NGO for the Development of Barcelona, we can see how 15 persons enumerate relationships with 21.

|    |           | 1   | 2   | 3  | 4 | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  |     |
|----|-----------|-----|-----|----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    |           | Car | Isa | M  | J | Mar | Rog | Lun | Xav | Dol | Eul | Jul | Jua | Mar | ung | Mar | Con | Alf | Mon | Car | Azn | Man | Tit |
| 1  | Carles    | 0   | 9   | 7  | 0 | 8   | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 2  | Isabel    | 0   | 0   | 10 | 0 | 0   | 7   | 8   | 0   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 3  | MaJosé    | 0   | 7   | 0  | 0 | 0   | 0   | 10  | 9   | 6   | 0   | 0   | 0   | 0   | 0   | 8   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 4  | Martí     | 9   | 8   | 7  | 0 | 10  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 5  | Roger     | 8   | 9   | 10 | 6 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 7   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 6  | Luna      | 0   | 10  | 4  | 0 | 0   | 0   | 5   | 2   | 1   | 0   | 8   | 9   | 0   | 6   | 3   | 0   | 0   | 0   | 0   | 7   | 0   | 0   |
| 7  | Xavier    | 2   | 6   | 10 | 0 | 0   | 8   | 0   | 7   | 5   | 0   | 0   | 0   | 0   | 0   | 9   | 4   | 3   | 1   | 0   | 0   | 0   | 0   |
| 8  | Dolors    | 0   | 7   | 8  | 0 | 0   | 5   | 9   | 0   | 6   | 0   | 0   | 0   | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 9  | Eul...lia | 0   | 7   | 10 | 0 | 0   | 5   | 8   | 6   | 0   | 0   | 0   | 0   | 0   | 0   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 10 | Julio     | 0   | 10  | 9  | 0 | 0   | 8   | 4   | 5   | 7   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 6   |
| 11 | JuanM     | 0   | 8   | 0  | 0 | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 12 | Mariano   | 0   | 8   | 0  | 0 | 0   | 10  | 0   | 0   | 0   | 0   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 13 | Àngel     | 4   | 10  | 9  | 2 | 5   | 7   | 8   | 6   | 1   | 0   | 0   | 0   | 0   | 3   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 14 | Marc      | 8   | 10  | 6  | 0 | 7   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 15 | Manel     | 8   | 10  | 0  | 6 | 7   | 0   | 0   | 0   | 0   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |

Figure 6. Rectangular matrix of relationships in an NGDO.

If we represent this matrix in a sociogram, we can see how we find nodes around the main network that receive but do not transmit relationships.

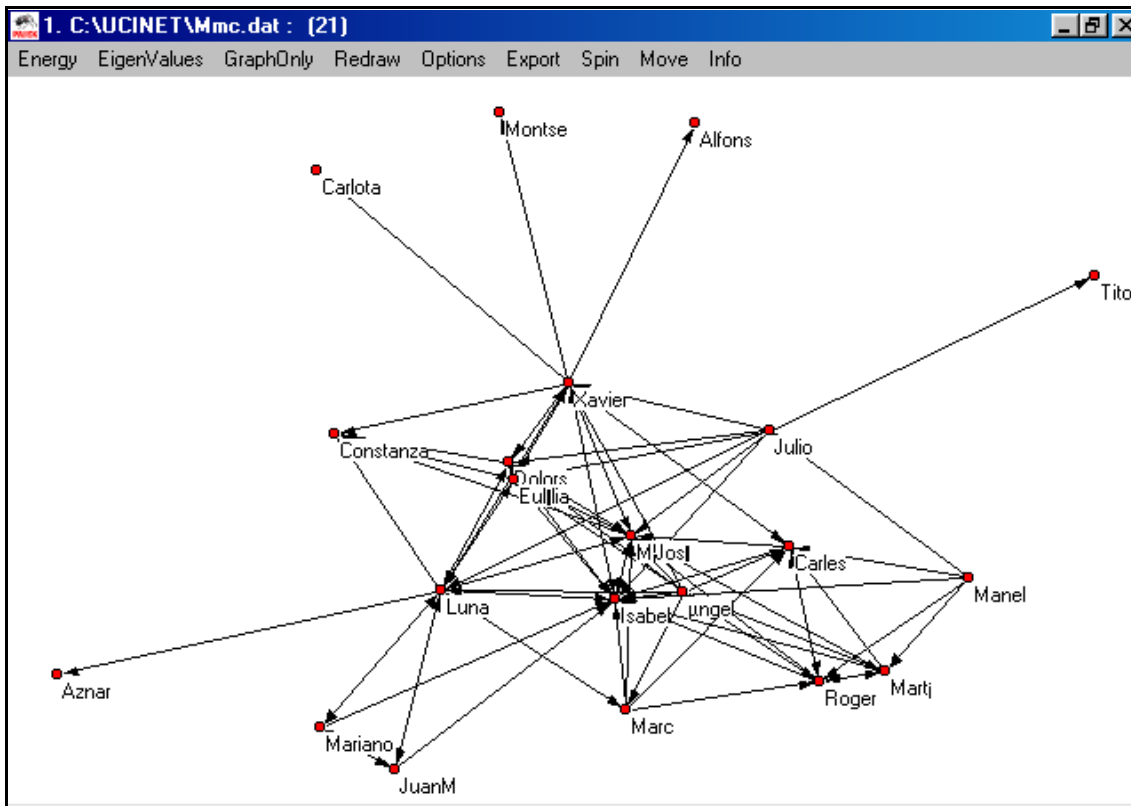


Figure 7. Network of Relationships in an NGDO.

Once the nodes in question were extracted, the following squared matrix was obtained:

|    |         | 1   | 2   | 3  | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  |
|----|---------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    |         | Car | Isa | MJ | Mar | Rog | Lun | Xav | Dol | Eul | Jul | Jua | Mar | ung | Mar | Man |
| 1  | Carles  | 0   | 9   | 7  | 0   | 8   | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 2  | Isabel  | 0   | 0   | 10 | 0   | 0   | 7   | 8   | 0   | 9   | 0   | 0   | 0   | 0   | 0   | 0   |
| 3  | MaJosé  | 0   | 7   | 0  | 0   | 0   | 0   | 10  | 9   | 6   | 0   | 0   | 0   | 0   | 0   | 0   |
| 4  | Martí   | 9   | 8   | 7  | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 5  | Roger   | 8   | 9   | 10 | 6   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 7   | 0   | 0   |
| 6  | Luna    | 0   | 10  | 4  | 0   | 0   | 0   | 5   | 2   | 1   | 0   | 8   | 9   | 0   | 6   | 0   |
| 7  | Xavier  | 2   | 6   | 10 | 0   | 0   | 8   | 0   | 7   | 5   | 0   | 0   | 0   | 0   | 0   | 0   |
| 8  | Dolors  | 0   | 7   | 8  | 0   | 0   | 5   | 9   | 0   | 6   | 0   | 0   | 0   | 0   | 0   | 0   |
| 9  | Eulàlia | 0   | 7   | 10 | 0   | 0   | 5   | 8   | 6   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 10 | Julio   | 0   | 10  | 9  | 0   | 0   | 8   | 4   | 5   | 7   | 0   | 0   | 0   | 0   | 0   | 0   |
| 11 | JuanM   | 0   | 8   | 0  | 0   | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 9   | 0   | 0   | 0   |
| 12 | Mariano | 0   | 8   | 0  | 0   | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 9   | 0   | 0   | 0   |
| 13 | Àngel   | 4   | 10  | 9  | 2   | 5   | 7   | 8   | 6   | 1   | 0   | 0   | 0   | 0   | 3   | 0   |
| 14 | Marc    | 8   | 10  | 6  | 0   | 7   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 15 | Manel   | 8   | 10  | 0  | 6   | 7   | 0   | 0   | 0   | 0   | 9   | 0   | 0   | 0   | 0   | 0   |

Figure 8. Asymmetric squared matrix of work relationships in an NGDO

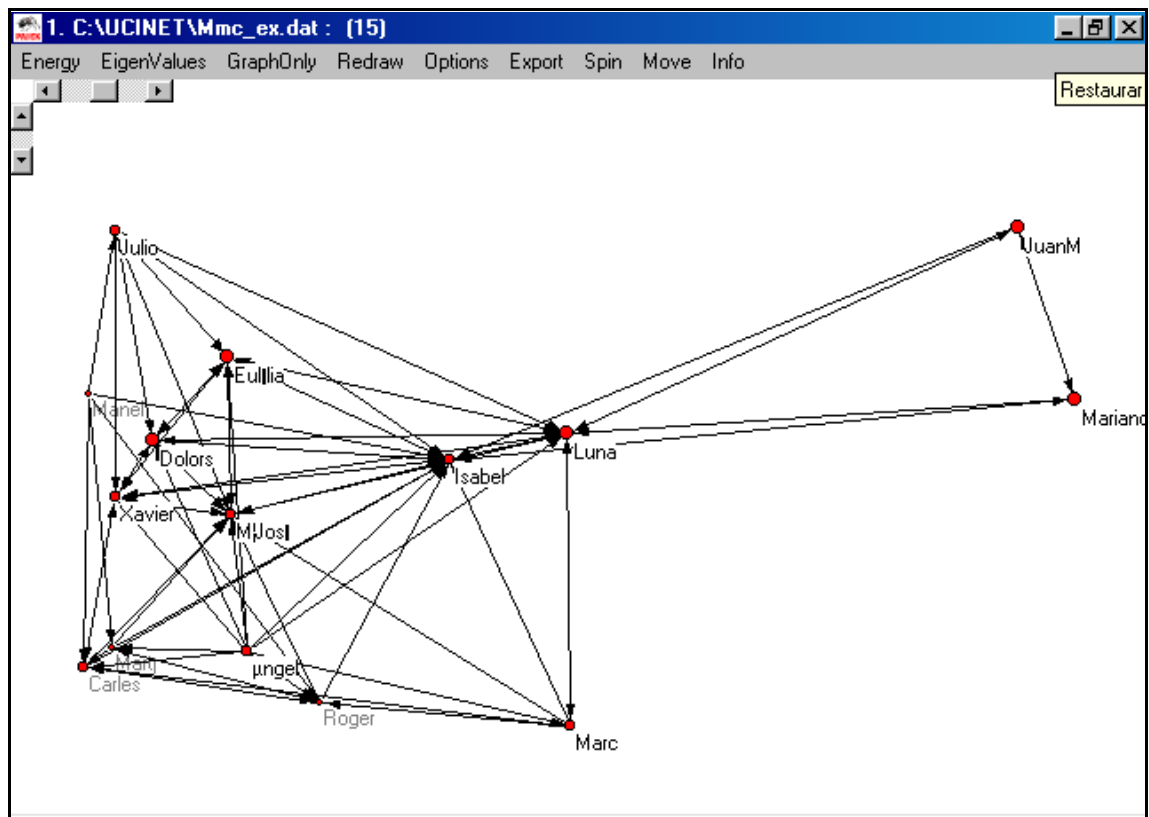


Figure 9. Network of relationships in an NGDO

In the sociogram of illustration 9 we can appreciate how Mariano and Juan M. are related to the organization through Luna and Isabel. It is also possible to see how Xavier, Dolors, María José and Eulàlia form a dense nucleus of relationships.



The organization we are analysing was made up of professional personnel (Luna, Isabel, Xavier, Dolors, María José, Eulàlia and Constanza –not reflected in the previous sociogram), conscientious objectors and volunteers. When the research was carried out (January 1997), NGDO’s still accepted conscientious objectors for substitutory social service for military service. These objectors, who worked around four hours a day from Monday to Friday, were formally assigned to one of the four departments of the organization (Administration, Communication, Projects, Pharmacy). The organizational chart of the organization was the following:

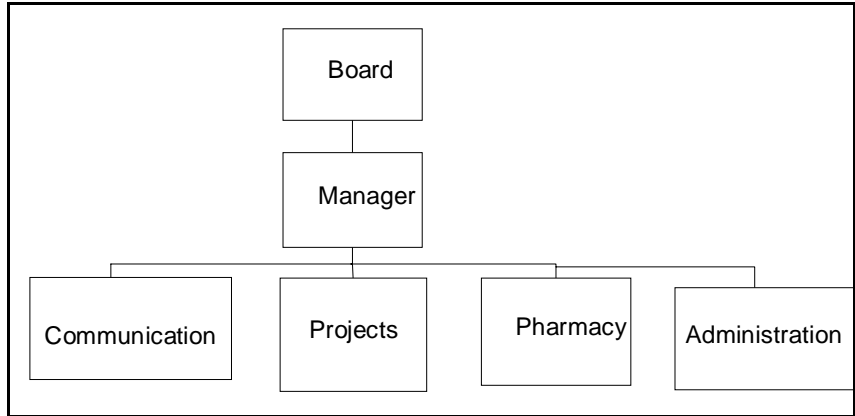


Figure 10. Organizational chart of an NGDO

The board was made up of volunteers and was the maximum body of direction of the organization. The board chose the manager, (Xavier), on whom the rest of the units depended. Luna took care of the Communication Department and the volunteers (Juan M. and Mariano in this case). Marc, an objector, was assigned to this department. The Projects Department consisted of two people, Dolors and Constanza. The latter also coordinated the work of the pharmacy. The Department of Administration was taken care of by María José, with the help of Eulàlia and to a lesser extent Isabel, the secretary of the NGDO.

|    |         | 1  | 5  | 10 | 4  | 15 | 13 | 14 | 11 | 12 | 3  | 2  | 9  | 6  | 7  | 8  |
|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|    |         | Ca | Ro | Ju | Ma | Ma | Àn | Ma | Ju | Ma | M* | Is | Eu | Lu | Xa | Do |
| 1  | Carles  |    | 8  |    |    |    |    |    |    |    | 7  | 9  |    | 10 |    |    |
| 5  | Roger   | 8  |    |    | 6  |    | 7  |    |    |    | 10 | 9  |    |    |    |    |
| 10 | Julio   |    |    |    |    |    |    |    |    |    | 9  | 10 | 7  | 8  | 4  | 5  |
| 4  | Martí   | 9  | 10 |    |    |    |    |    |    |    | 7  | 8  |    |    |    |    |
| 15 | Manel   | 8  | 7  | 9  | 6  |    |    |    |    |    |    | 10 |    |    |    |    |
| 13 | Àngel   | 4  | 5  |    | 2  |    |    | 3  |    |    | 9  | 10 | 1  | 7  | 8  | 6  |
| 14 | Marc    | 8  | 7  |    |    |    |    |    |    |    | 6  | 10 |    | 9  |    |    |
| 11 | JuanM   |    |    |    |    |    |    |    |    | 9  |    | 8  |    | 10 |    |    |
| 12 | Mariano |    |    |    |    |    |    |    | 9  |    |    | 8  |    | 10 |    |    |
| 3  | M*José  |    |    |    |    |    |    |    |    |    |    | 7  | 6  |    | 10 | 9  |
| 2  | Isabel  |    |    |    |    |    |    |    |    |    | 10 |    | 9  | 7  | 8  |    |
| 9  | Eulàlia |    |    |    |    |    |    |    |    |    | 10 | 7  |    | 5  | 8  | 6  |
| 6  | Luna    |    |    |    |    |    |    | 6  | 8  | 9  | 4  | 10 | 1  |    | 5  | 2  |
| 7  | Xavier  | 2  |    |    |    |    |    |    |    |    | 10 | 6  | 5  | 8  |    | 7  |
| 8  | Dolors  |    |    |    |    |    |    |    |    |    | 8  | 7  | 6  | 5  | 9  |    |

Figure 11. CONCOR with two partitions

Through a series of CONCOR (Borgatti, Everett and Freeman, 1994) analyses of the squared matrix<sup>1</sup> it has been possible to establish the different groups of the organization. These analyses allow us to get closer to what is the informal organizational chart of the organization.

In the first analysis we shall only deal with the identification of the two groups according to the density of their relationships. As it can be seen from the following illustration, these two groups establish a clear difference between the professional structure (the second group) and the structure of objectors and volunteers.

In the following analysis, we have gone on to divide each group into two sub-groups. The result is shown in Figure 12.

|    |                     | 1  | 5  | 10 | 4  | 15 | 13 | 14 | 11 | 12 | 6  | 2  | 9  | 3              | 7  | 8  |
|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----------------|----|----|
|    |                     | Ca | Ro | Ju | Ma | Ma | Àn | Ma | Ju | Ma | Lu | Is | Eu | M <sup>a</sup> | Xa | Do |
| 1  | Carles              |    | 8  |    |    |    |    |    |    |    |    | 9  |    | 7              | 10 |    |
| 5  | Roger               | 8  |    |    | 6  |    | 7  |    |    |    |    | 9  |    | 10             |    |    |
| 10 | Julio               |    |    |    |    |    |    |    |    |    | 8  | 10 | 7  | 9              | 4  | 5  |
| 4  | Martí               | 9  | 10 |    |    |    |    |    |    |    |    | 8  |    | 7              |    |    |
| 15 | Manel               | 8  | 7  | 9  | 6  |    |    |    |    |    |    | 10 |    |                |    |    |
| 13 | Àngel               | 4  | 5  |    | 2  |    |    | 3  |    |    | 7  | 10 | 1  | 9              | 8  | 6  |
| 14 | Marc                | 8  | 7  |    |    |    |    |    |    |    | 9  | 10 |    | 6              |    |    |
| 11 | JuanM               |    |    |    |    |    |    |    | 9  |    | 10 | 8  |    |                |    |    |
| 12 | Mariano             |    |    |    |    |    |    |    | 9  |    | 10 | 8  |    |                |    |    |
| 6  | Luna                |    |    |    |    |    |    | 6  | 8  | 9  |    | 10 | 1  | 4              | 5  | 2  |
| 2  | Isabel              |    |    |    |    |    |    |    |    |    | 7  |    | 9  | 10             | 8  |    |
| 9  | Eulàlia             |    |    |    |    |    |    |    |    |    | 5  | 7  |    | 10             | 8  | 6  |
| 3  | M <sup>a</sup> José |    |    |    |    |    |    |    |    |    |    | 7  | 6  | 7              | 10 | 9  |
| 7  | Xavier              | 2  |    |    |    |    |    |    |    |    | 8  | 6  | 5  | 10             |    | 7  |
| 8  | Dolors              |    |    |    |    |    |    |    |    |    | 5  | 7  | 6  | 8              | 9  |    |

Figure 12. CONCOR with four partitions

As we can see, for the professional and non professional structures respectively, Luna and Isabel and Mariano and Juan M form separate groups that can be appreciated in the sociogram. These persons carry out or give support to the sensitisation and communication tasks of the activities of the NGDO. On the other hand, the density of relationships between the Management, Projects and Administration indicates the priorities of the formal structure of the organization in the management of cooperation structures: the creation of cooperation projects with possibilities for financing, the purchase of equipment, support for collaborators, dispatch of supplies... The Pharmacy department only exists as a separate entity on paper. The rest of the people (objectors) carry out support functions for the rest of the organization.

The analyses could be multiplied. However, we believe that we have demonstrated that it is possible to approach the informal organizational chart of an organization using the methods and techniques of the analysis of social networks. Thus we have an additional tool for the social analysis of organizations.

<sup>1</sup>CONCOR: An analysis carried out with Ucinet IV by Borgatti, Everett and Freeman (1994). <http://www.analytech.com>. The sociograms are represented with Pajek: <http://vlado.fmf.uni-lj.si/pub/networks/pajek>.

## References

- Bonazzi, Giuseppe. 1994. *The History of Organizational Thought* [*Storia del pensiero organizzativo*]. Vic: Eumo editorial.
- Brass, Daniel J. 1984. "Being in the Right Place: A Structural Analysis of Individual Influence in a Organization", *Administrative Science Quarterly*, 29, 518-539.
- Brass, Daniel J., and Marlene E. Burkhardt. 1992. "Centrality and Power in Organizations" in Nohria and Eccles, 1992.
- Burt, Ronald S. 1992. "The Social Structure of Competition" in Nohria and Eccles, 1992.
- Burt, Ronald S. and Don Ronchi. 1994. "Measuring a large network quickly", *Social Networks*, vol. 16, No. 2, 91-136.
- Castells, Manuel. 1997. *La era de la información. Economía, sociedad y cultura*. Vol 1. *La sociedad red* [*The Information Age: Economy, Society and Culture. The Rise of the Network Society*, 1996], Madrid: Alianza Editorial.
- Crozier, Michel 1965. *The Bureaucratic Phenomenon* [*Le phénomène bureaucratique*, 1965]. Madrid: Secretaría General Técnica de la Presidencia del Gobierno.
- Doreian, Patrick and Katherine L. Woodard (1994). "Defining and locating cores and boundaries of social networks", *Social Networks* 16, 267-293.
- Erickson, Bonnie H. (1981). "Network sampling in practice: some second steps", *Social Networks* 3, 127-136.
- Erikson, Bonnie and T. A. Nosanchuck (1983). "Applied network sampling", *Social Networks* 5, 367-382.
- Freeman, L.C., A.K. Romney and S.C. Freeman (1987). "Cognitive structure and informant accuracy", *American Anthropologist*, 89, 310-325.
- Freeman, Linton C. (1992). "Filling in the blanks: a theory of cognitive categories and the structure of social affiliation", *Social Psychology Quarterly*, 55 (2), 118-127.
- Ibarra, Herminia (1992). "Structural Alignments, Individual Strategies, and Managerial Action: Elements Toward a Network Theory of Getting Things done" in NOHRIA and ECCLES, eds., *op. cit.* 143-164.
- Killworth, P.D. and H. R. Bernard (1976). "Informant accuracy in social network data", *Human Organization*, 35, 269-286.
- Krackhardt, David (1990). "Assessing the Political Landscape: Structure, Cognition, and Power in Organizations", *Administrative Science Quarterly*, No. 35, 342-69.
- Mintzberg, Henry (1988). *La estructuración de las organizaciones* [*The Structuring of Organizations (A Synthesis of the Research)*, 1979]. Barcelona: Ariel.
- Molina, José Luis (1995). "Análisis de redes y cultura organizativa: una propuesta metodológica" [*The Analysis of Networks and Organizational Culture: A Methodological Proposal*], *REIS* 71-72, July-December, 249-263.
- López Camps, Jordi and Albert Gadea (1995). *Servir al ciudadano* [Serving the Citizen]. Barcelona: Edicions 2000.

- Nohria, Nitin and Eccles, Robert G. (eds.), (1992). *Networks and Organizations. Structure, Form and Action*. Boston: Harvard Business School Press.
- Osborne, David and Ted Gaebler (1994). *La Reinención del Gobierno* [The Reinvention of Government]. Barcelona: Paidós.
- Pompidou Group. 1995. Co-operation Group to Combat Drug Abuse and Illicit Trafficking in Drugs. *Handbook on snowball sampling*. 22nd Meeting of experts in epidemiology, Strasbourg, 4-5 May.
- Romney, A.K. and K. Faust (1983). "Predicting the structure of a communication network from recalled data", *Social Networks* 4, 285-304.
- Weber, Max (1969). *Economía y sociedad. Esbozo de sociología comprensiva (Economy and Society. A comprehensive sketch of sociology)* [*Wirtschaft und Gesellschaft, Grundriss der Verstehenden Soziologie*, 1922]. México: F.C.E.