A tie is not just a tie
From 'weak ties' to 'social capital', a critique

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Summary

We set out to substantiate that Granovetter's "The strength of weak ties" (SWT) was not well founded. Reviewing his *Getting a job* as the first empirical underpinning we found that among the job changers he interviewed no more than some 15% succeeded by means of weak ties. With the entire sample as the percentage base that 'success rate' may be as low as 5%. Later studies lend some support to the thesis but add complication and modifications, e.g. Lin. No control group was included, i.e. ties tried to no effect. We found reasons to doubt that the generalisation involved in stating SWT as networking model holds good. We point out differences between the tie and network approaches of White, Putnam and Granovetter, the first two better founded. The tie, and hence the network concepts were found to be lacking compared to their basis, interaction or social relation, with some revisions suggested, among them utilising to the full Bourdieu and associates' social *field* instead of 'situation' or setting, and further his, and others', *social capital*, locally Bø&Schiefloe (2007). Next we discuss ideological implications of this, and of alternative approaches. Penultimately, SWT's polite contrast to market and game theories are discussed, with anthropologist Hannerz' contribution illustrating shortcomings of 'clustering', a core element of the SWT model. Finally we suggest it is high time for 'networkers' to specify their ambitions, local finding or general sociological paradigm intermediate between oversocialised and undersocialised approaches. A final suggestion is that current social capital approaches are unlikely to decrease despite criticism, yet that they may do as well with SWT discarded as a mere 'sometimes true' statement.

Granovetter's "The Strength of Weak Ties" (1973), or SWT in his own acronym, has been very well known since its publication. Listening to the author at the 2nd National Conference of Norwegian Sociology back in 1991 was stimulating. My interest really took off, however, following a 2005 invitation to comment on a text by John Urry and associate (Axhausen 2006, cf. Otnes 2006), a brief preliminary form of what was later published as Larsen et al. (2006). In both, the authors draw heavily on SWT in order to substantiate that mobilities of all types and forms are unlikely to decrease, indeed likely to continue increasing in coming years, the geographical not least. Or in their own words:

> …(I)t might be imagined that there would be less need for physical meetings with improved ICTs, on the contrary, scheduled meetings have become highly significant (back cover).

SWT does not play a single main role in their argument; indeed they stress that strong ties (distant family, friends etc.) also generate physical travel. Yet a very significant supporting one, a basic thesis of Granovetter being that weak ties often are at advantage vis-à-vis strong ones in that they bring us new, more valuable information, advice, help etc. hence stimulate the search for ever new or not well-known ties wherever they are:

> … (I)t would seem that those with the largest number of weak ties will tend to be advantaged in (intermittent) meetings, so producing many more weak ties (Larsen et al. 2006: 18–19).

Whereas strong ties tend to bring redundant information etc., that is, only what we knew or had received through earlier contacts.

The original paper (and a follow-up, Granovetter 1983) soon became almost 'citation stars', not perhaps of top luminosity but also not far from it. Once you have read and grasped this it seems so obvious, on the face of it, that the pursuit of ever new weak ties tend to give us more news etc. But is it really the case that ties classified as 'weak' really give us better, more relevant, more reliable, more up-to-date information etc. than those classified as 'strong'? What indeed is a 'tie', no matter its strength? Is it really the case that we seek out weak ties more than strong ones, with a view to gain new information etc.?

So I was lead into the details of the work of Granovetter, followers, and some opponents, and eventually found that despite its fame SWT is empirically weak and conceptually unclear. Earlier, I have disproved, or so I hold, some other once

famed models of US social science, starting with the Coleman/Hernes theory of power through exchange or logrolling (Otnes 1987). Later I took on so-called 'trickle down theory' (Otnes 2007: 41 ff.), 'the prisoner's dilemma' and 'the tragedy of the commons' (Otnes 2004), supported, indeed preceded by local work such as Green & Shapiro (1994) *Pathologies of rational choice theory*. Here then follows another model, SWT, a hypothesis rather than theorem or theory, on its course towards the end, as 'sometimes true' statement.

SWT is lacking in empirical underpinning

Granovetter's *Getting a job* (or GAJ, 1974/1995) is the original empirical basis. 282 men in professional, managerial and technical (PMT) positions changed jobs in a small Yankee town between 1968-69. Among them 55.7% relied on "personal contacts" (p. 19), not specified as to 'weak' or 'strong'. The remaining slightly less than half relied on ads, direct applications, in writing or in person, etc. Among the sub-sample of a 100 men interviewed, not only mail surveyed, the proportion personal contacts rises to 64.6% (p. 90, table 6, N=82[1]), still unspecified as to strength.

Among the same sub-sample brief qualitative details are given for in sum 21 respondents, albeit not in very systematic form. On inspection, it appears that only six of these did *not* rely on obviously 'weak' ties for getting their jobs, the remaining 15 succeeded through them – partly, for a weak tie may be strategic but rarely conclusive: The tie provides a link but it is up to the prospective applicant to follow up, and to the future employer to actually hire him. The one tie is in fact tripartite[2], job seeker, 'weak' acquaintance, prospective employer, cf. on Lin et al. (1981) below. Not all three ties are likely to be weak – that to the connecting node, yes but from that node to employer it is likely be strong (or if not so, ineffective), and from employer back to origin new, i.e. even less than weak for a start.

Nine additional cases are also detailed, mainly for illustration of the considerable coding problems e.g. between 'weak' and 'strong', substantiating that the researcher took every care not to bias the coding in favour of his 'weak is valuable'-hypothesis (pp. 195-200).

Now 64.4% of 82 equal 53 persons relying on unspecified personal ties. As we saw among the 21 persons detailed 15 succeeded through weak ties, and 53 minus 15 makes 38 – that is, 38[3] for whom we do not learn whether their 'personal contacts' could be called 'weak' or 'strong'; not very conclusive as a first empirical underpinning of Granovetter's (1973) thesis. So the proven value of SWT is reduced to 15 out of 82 (or 100?), i.e. 18% (or 15%).

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Further if we give GAJ the benefit of the doubt, the most reasonable proce-dure would seem to be adding the same percentage – 15% or 18%, of possibly 'weak' ties among the 38 unspecified, that is, six or at most seven weak cases – to the 15 clearly specified, i.e. sum 21 or 22. As a percentage that is at most 27%, still not very impressive as the empirical underpinning of SWT. Or if we grant it GAJ maximum luck, all of the unspecified 38 cases 'weak', they are still only 53 out of 82 (or 100), i.e. 65% (or 53%), better still but hardly entirely convincing. But alternatively one could argue that the 43.3% or 95 persons who found jobs through formal or conventional ties should be added to the percentage base, i.e. the entire sample of 282, rendering the percentage a mere 5%, or for the maxi-mum luck case, 19%.

In addition, it appears that 6-8 among the 15 relied on family or friends of family for their personal contacts. Ties involving family are most often counted as strong, at one end at least. But true, these 6-8 seem to have relied on extended family ties likely to be weak, distant family such as in-laws and cousins for exam-ple.

Granovetter (1983) reviewed relevant later empirical findings bearing on his hypothesis. His sober conclusion is as follows: "The results of these studies are very encouraging, but not conclusive" (p. 228) but cf. on Nin et al. (1981) below. His (1974/1995:139-82) postscript to the second edition of GAJ cites a number of further studies challenging, supporting or modifying his hypotheses. Once more his conclusion is laudably sober: … we know little more about my speculations … in GAJ than we did then (p. 177).

Granovetter succeeds, I think, in pointing out weak ties' *potential* for provid-ing uncommon or rare connections, so that in the wider picture they may not decrease but indeed increase cohesion, solidarity etc. Weak ties may tend to pro-vide bridges, i.e. unique or rare connections, links transcending the borders of strongly intra-connected groups, cultures etc. Note that they *may*, they need or must not actually bridge. In the words of Friedkin, cited approvingly by Granovetter himself (1983), SWT

> …rests on the assumption that local bridges and weak ties not only represent opportunities for the occurrence of cohesive phenomena … but that they actu-ally promote (their) occurrence (1983:219).

Solid substantiation of such actual promotion has yet to appear, so SWT has a problem of empirical confirmation lacking or at least of being incomplete, it appears to this day, a 'sometimes true' statement.

A dubious contrasting evaluation

In striking contrast Urry (2007:214) reports that

> The key idea here is the 'strength of weak ties'. Granovetter's famous research showed that a striking 84 per cent of job searchers were able to acquire a new job, not through someone they knew well, but through someone that they did not know particularly well and saw only occasionally.

The exact figure 84% does not appear in Urry's source here, Granovetter (1974/1995), but on page 265 of the latter, Granovetter writes that his PMT workers

> … were more likely to hear about new jobs through weak ties (27.8 percent) than through strong ones (16.7 percent), with a majority in between (55.6 percent).

Summing the 'weak' and 'in between' figures makes 83.3 percent which by rounding off optimistic gives 84 percent, Urry's figure. We skip here the question whether the 'in between' is more like what we called ties of unspecified strength above, or a separate, 'weaker' category independent of that. Now Granovetter (1974/1995:53) gives only N=54 as the percentage base here. But his tables 1-6, pp. 13-19, have category percentage bases from his survey data varying between n=151 and 156, depending on the varying table grand Ns, due probably to a varying few missing answers. What happened to the other c. 100 respondents is not entirely clear. If the figures derive from his survey data then missing answers to his question 10 (on contact frequencies, p. 208) are alarmingly high. Should the figures derive from his 100 interviews sample a N=54 is more likely, but there his question guide's point 4, particularly 4.7 on page 202, is less explicit. He mentions both survey and interview data immediately preceding his p. 53 figures. Only the author himself can solve this puzzle. In my reading, however, survey data with lots of missing answers is more likely. So on this point the 'famous research' may rest on a response rate of only 35-36% of subsample total. Or in non-technical terms, two thirds of these respondents have not answered the question whether they found jobs through infrequent or other contacts. Which reduces the 84% success rate to at worst a mere 9%, 29% with the 'in between' added.

Missing control group: Do ties never fail?

The men sampled in GAJ without exception found jobs; it was a sampling principle. So some sort of a control group is lacking, for the study says naught about whom, and how many tried to find new jobs, through ties or otherwise, *without* success, and how frequent such efforts may be[4]. For certainly it cannot be taken for granted that all trial searches through ties (or otherwise) do succeed? Our helpful weak tie nodes may make great efforts, which despite that do not work, or they may not even bother to make efforts, with seekers at loss to tell the difference. And should they find out, anger or other negative feelings from a forsaken weak tie will hardly hurt the target end much. Similarly for prospective employers, who may act on or reject a weak or strong tie's recommendation, no troubled sleep resulting.

There is a trace of a discussion of this control group problem in Granovetter (1974/1995:9), soon dismissed for lack of "time and resources", however, and the difficulty of tracing 'failing weak ties'.

The macro picture tells us that the US unemployment rate of 1968-9 was a near record low of less than 4%, rising to a near top record over double that in 1975, an approximate long-term average being c. 5%. By conventional economics, not always reliable, one would expect employment tips to come more easily when job openings are numerous than when they are scarce.

Here too the question of *competition* for jobs rises. The question of ties' contributing to or hindering equal opportunity is discussed in Granovetter's afterword (1974/1995:169 ff), albeit without a clear-cut answer. In comparison, when applying for academic positions, the formal rule is that competition, not ties, should prevail, vacancies being announced in public and applicants ranked by impartial seniors. Which regularly gives rise to allegations of specifications being tailored to certain applicants, i.e. that more or less well-concealed favouritism or nepotism be at work – through ties. Here, fair competition takes the role of a value, not only a process or fact: 'may the best wo/man win'. Do they, do we? He does mention studies from Japan indicating that 'old boy' academic networks are hard to avoid even when institutional efforts to do so are introduced (pp. 166-8).

The 1981 paper of Lin et al. is among those mentioned in passing (Granovetter 1983:228). On closer look it both supports and modifies the SWT thesis. Theirs is a 1975 sample of 399 employed males 21-64 drawn from a similar site as GAJ[5]. Respondents were asked how they got their first, and their present job, with occupational status (OS) added for all three ties of the triad. Results were that weak ties were somewhat effective, but more so for those job seekers who managed to

established contact with a target higher up in the OS ranks, which proved more difficult for seekers having low initial OS positions. And high OS seekers, more often well established in the labour market, were more likely to have long-lasting job contacts, hence strong ties, with less or no gain expected from searching through weak ties. In sum, Lin et al. gives the impression that relying successfully on weak ties is typical of the aspiring (lower) middle class in white-collar jobs. Those below fail to establish weak ties whereas those above rely on strong ties[6]. Others have held that tie successes must depend further on the type and value of services or goods conveyed, holding weak ties to be more effective for small and not transmittable values such as a job tip (when jobs are easily found), with strong ties better if for example a major loan etc. is sought for. Even some immaterial tips will be closely guarded, e.g. among stockbrokers, or even in academic circles where plagiarism does occur. Why, even Descartes is said to have withheld the first, fuller version of his reflections on method, fearing to be anticipated in discovery. Inferior circles are likely to regulate mouth-to-ear transmission of discoveries for similar reasons. For many, a job tip, another service or good given away is less likely to materialise if that implies (major) loss for the giving side. Which implies, if true, that tips will tend to travel level or 'down', between peers or towards respected inferiors, juniors, cf. Lin. Receiving a valuable tip, a 'gift' one cannot reciprocate tends to reinforce hierarchy or increase social distance, cf. also on Blau below.

Unfounded generalisation?

The transition from the largely empirical study GAJ, to designing the model, admittedly exploratory, of SWT, is crucial. This demands a degree of abstraction, of course, but in addition a largely tacit amount of generalisation is involved. Now is generalisation really warranted, empirically well founded? We mentioned that Granovetter (1983, 1974/1995) reviews a number of studies, some of which survey and discuss nothing but the role of ties during the search for (new) jobs, while ties sought out for other ends certainly must exist. Other studies reviewed deal with ties and the diffusion of innovation among researchers, hospital staff etc. But does this really substantiate that as a model, SWT is valid no matter what the content[7], field or setting of ties? We have quoted his quote from Friedkin, which continues thus:

A major empirical effort in the field of social network analysis will be required to support this aspect of Granovetter's theoretical approach…

'this aspect' referring to the power of weak ties to 'actually promote the occurrence of cohesive phenomena'.

At the end of the same text (1983:228) Granovetter himself states:

Many of these studies did not set out systematically to test the argument of SWT. In some cases that argument came in handy to explain empirical findings that would have otherwise been anomalous … There is no way to know for example, about empirical studies in which the SWT argument was considered, rejected and not mentioned because it did not fit the facts …

So in sum we do not really know as yet that ties found to follow the SWT model fairly regularly, somewhere between 18% (or even 5%) and 63% of relevant cases in one context of job shifts, will actually do so in any other context, say travel and meetings with co-professionals, distant family or friends (Larsen et al 2006). Taking SWT as if it were an established proven theory saves one the trouble of suggesting novel explanations, e.g. for the international teeming of younger generations in recent years, *The Beach*, say no more: Whosoever have not been to Bali, Mali, Fiji etc. are socially dead on the return of the others.

Tie strength/weakness defined

The original paper contains Granovetter's often quoted definition of the strength of an interpersonal tie as follows:

The strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterise the tie (Granovetter 1973:1361).

In a footnote he adds:

Ties discussed in this paper are assumed to be positive and symmetric; a comprehensive theory might require discussion of negative and/or asymmetric ties, but this would add unnecessary complexity to the present, exploratory comments (ibid.)

As many have remarked, these concepts appear related to Robert Putnam's (2000:22 ff) *bonding* versus *bridging* social capital, since Granovetter claims that

weak ties tend to bridge whereas strong ones tend to bond. There is however the difference that Putnam's concepts are based in *results*, i.e. increased or shrinking social cohesion, whereas Granovetter's in antecedents; duration, intensity etc. His is a more complex relation, more dependent on solid empirical underpinning. The fertility of his concepts depends on whether further research can verify his thesis, SWT, or 'weak is valuable'. Putnam however presents piles of indicators of bonding and bridging *as results*, no matter what kind of ties brought them about.

Harrison White's *Chains of opportunity* (1970) is a main inspirer of Granovetter. White also presents models of job change, in so far similar to Granovetter (1974). Both conceptualise job shifts, White in the long run, Granovetter in the short. Both analyse changes as *faits accomplis* but Granovetter studies the processing of information leading up to his job shifts, whereas White, working with older archive data is registering outcomes, neither alternative possibilities nor the type or character of the information leading up to a factual shift. In a word, contact chains (Granovetter 1974:56, 156) are not opportunity chains (White). Granovetter's arguments to the contrary (1974/1995: chap. 4) are of no effect.

A problem with White's concept is its being entirely etic, not emic in anthropology's language, emic being the reseachers' models, etic the nets as perceived by the real life nodes, the actors within networks: A single incumbent is unlikely to know more than one or two links in his or her vacancy chain(s), which goes even for White's personal chains (emic), White (2001, cf. Otnes 2007). An entire chain of greater length is unlikely ever to be known to anybody but inquiring researchers (etic). A second problem is that it is not true that "…a vacancy chain … has a multiplier effect on mobility" (1974/1995:69). The relation incumbent-position is one-to-one, so as for total jobs, this implies reproduction *in* scale, not in *extended* scale[8]. In fact, vacancy chains do not create jobs, it only shifts incumbents between existing jobs so it cannot even reduce unemployment. Nor do they increase sum OS (in any short run), only the increased individual OSs of the n 'members' of a chain. Each of them 'inherits' only that of the former incumbent, no increase of total 'inheritance'.

Putnam (2000:319 ff) lauds Granovetter's pioneering efforts, his "counterintuitive fact" but goes on to refer to studies which do not in any conclusive or general way support the 'weak is valuable' thesis. Putnam even cites "sceptics" who have stressed other factors than lack of personal contacts, weak or strong, as more of an obstacle to finding jobs, "employer racism, … educational requirements, and … lack of access to suburban growth centres" (p. 320). In effect Putnam's citing of the pioneer is nothing much but a ritual bow to a tradition on which his results are not dependent.

Human ties are social relations

Note that Granovetter defines the *strength* – and by implication, the weakness – of ties, not what constitutes ties themselves, no matter what their strengths or weaknesses. For him, that remains undefined, a primary term. Many have tried to fill him in here. Denial is the easy way; some hold that 'if you know the strength of a tie, you don't need to know its content', i.e. the purported fertility of the tie concept may be held to reside exactly in its abstraction. A tie is held to exist whenever two persons both confirm knowing each other, no matter how, since when, in what respect etc. But in fact it proves difficult to verify ties without asking 'from where, when?' etc. after the mere 'knowing', as Granovetter's own survey and interview questions bear out too (1974/95: 202, 208). So substance must be added to the abstraction.

A first step towards defining ties in general, tie content, as against mere tie strength, stresses that they are basically *social relations*, *instances of interaction*, in Parson's (1947) term *social action*, based on Weber's (1923) *soziales Handeln*. Two parties, persons or groups, relate to each other taking account of own expectations as well as what each one takes to be the other party's[9]. And although specified in an off-hand sort of way, it is clear that social action usually takes place in a context, setting or situation, which includes more than the parties in focus – surroundings, spectators, antecedents and consequences, substance or topic etc.

Now 'situation' etc. as concepts are conveniently, maybe even intentionally vague. Bourdieu (e.g. 1997:22-3) proposes replacing them with his more precise concepts social *field*[10] (or social *space*), and *social capital* for networks, very roughly[11] (Bourdieu&Wacquant 1992:119). The one great advantage of these two concepts is that they introduce hierarchy, conflict and bonding as basic features instead of the amorphous or even euphemistic 'situation' etc. Further, *illusio* is introduced; something is at stake in any field, the agents compete and fight as well as cooperate. Further still, *symbolic* capital, a general concept including economic and cultural capital alongside social, political etc. – indeed any entity valued by agents in a field.

But the unique basic feature of action (*Handeln*), social or other, is that its authors attach a *sense* (*Sinn*)[12] to what they do or refrain from doing. This sense may take the form of a motive or a purpose but no less that of an emotion, or a passive adherence to habit, tradition, or value, combined forms of these being frequent. This sense, often less precisely termed intension, will regularly be different on different sides of ties among humans, unlike nature ties such as cells as "…networks of molecules connected by biochemical reactions" (Barabási&Bonabeau 2003:62, cf. Watts et al 2006).

A second unique feature states that action may be "either overt or purely inward…(or)…positive intervention in a situation or deliberately refraining from such intervention, or passively acquiescing in the situation" (Parsons/Henderson trans. Weber 1947:88). A sneeze is a reflex, neither action nor social. Withholding a sneeze however is both, a polite case of 'deliberately refraining'. Similarly refraining from establishing or from working on a tie, cf. on Blau below.

Summing up, interaction is two (or more) parties' actions[13] to which both attach a sense and where both know or assume expectations – first, second and possibly n-th order[14] – from one's own and from the other party's side.

Interaction is a basic but not a sufficient condition for counting as tie content in general. For it to count as a tie, interaction will have to be repeated, by roughly the same parties over a period of time long or intense enough as to be remembered after a considerable period, for one or both parties[15]. Hence *a tie* in the shortest of terms *is durable interaction remembered, or capable of recall on reflection*. Cf. later on the *fields* of tie establishment and recall.

The power of metaphor – to lead and mislead

We Norwegians hold that the network metaphor first came to the social sciences through the work of John Barnes (1954, 1972), its myth of origin as it were: While doing fieldwork in a fishing community, he was one day idly examining a fishing net when the idea struck him that local actors could be likened to net knots, with fibres as social relations between actors[16].

We should note that while Barnes' original paper introduces the network metaphor as well as that of ties, the latter does not appear at the outset, where he speaks of "… a social field (or) *network* (as) a set of points some of which are joined by lines (which) indicate which people interact with each other" (1954:43). Here too he explicitly rejects the *web* metaphor for having only two dimensions, whereas he is "trying to form an image for a multi-dimensional concept".

Sociometric diagrams or graphs are other, older metaphors for networks or tie systems, or more of a method or tool for analysis. Granovetter (1973:1360) expressed moderate scepticism over "sociometry, the precursor of network analysis" because it "has always been curiously peripheral – invisible, really – in sociological theory". In later decades sociometry in the form of 'social network analysis' has become something of a mathematical sub-discipline of its own (cf. e.g. Carrington et al. 2005, Watts, Barabsási et al. 2006), following the path of mathematical statistics, from fact to abstraction. Its relevance to sociological theory is

still by no means evident, however[17].

Summing up thus far, a basic weakness of the tie as metaphor or concept is that it peels away much of the richness of basic concepts such as interaction and social relation, notably the meaning or intention aspect.

Anyhow, as concept, term or metaphor, ties did not really catch on for years; nearly 20 years separate Barnes and Granovetter, for which discipline boundaries may be a reason. Even after the celebrated 1973 paper many more years rolled by until it really caught on in social science.

Social relations, 'ties', are at work in fields

Now next granted that ties are interactions remembered, there are indeed established sociological theories of social remembering to be taken into account (Halbwachs 1994, 1997, Misztal 2003). Skipping details one basic common point of these theories is the idea that memory, individual or collective, needs the support of a group or ambiance, field, in order to form and endure[18]. If so, ties as memories are less one-one, person to person, than is often assumed. They are based on groups, ambiances, *fields* as mentioned, or types thereof of some duration, both at their period and field of origin and at that of (possible) recall, field of recall. Take for example the case of old schoolmates briefly mentioned in Gottdiener's GAJ (1995), a case of most often weak ties, dormant yet with a capacity (for some) of being revived after years or even decades.

Stressing the college education has a ring of what the Germans call *"alte Burschenherrlichkeit"*, during academic and similar schooling – 'dear old schooldays'. Considering the case more closely, academic students tend to end up in the same or similar professions, not rarely for the rest of their lives. Tie age will be a little shorter (since started later in life) and tie duration longer. And fields of recall[19] can be more frequent, as well as more substantial; for example, professionals despite years of specialisation, tend to keep the ground-stones of their professional, insider language[20].

Turner's (1965) conception of *liminality* counts in the same direction: When faced with the uncertainty of (final) exams as rites de passage, fellow students will regularly if informally seek each other's community providing comfort against risk. This element of a field of origin is one of extreme stress engendering intense group cohesion, likely to be remembered for up to a full lifetime, i.e. near maximum tie duration. It appears that some ties, technically speaking weak, can preserve their original strength remarkably long if this is their basis.

The present activities know as *team-building* may be seen as applications of Turner's type of ideas on how to build community, fluid or local, including ties, strong or weak. By exposing employees, students, subordinates etc. to extremes of stress or effort such as bungee jumping, paint-ball games etc. the intention is improving staff etc. cohesion. Even the weekend (or longer) hotel seminar[21] for staff, discipline professionals etc. serve similar ends. Or in the words of Larsen et al. (2006:34):

> Conferences are full of small world experiences as apparent strangers discover that they are connected through weak ties. … Who for example goes to a conference to listen to the presentations? It's networking that counts[22].

Of course conference encounters also involves testing out, and possibly establishing new weak or prospectively stronger ties. In our terms, seminars etc. serve as forever new fields both of origin (FO) or recall (FR).

We are not only pulled towards weak ties for gain, we sometimes tend to push away from strong ones despite gain, as demonstrated by Peter Blau's (1955) study of legal consultants in a government agency. His respondents tended to avoid asking advice from colleagues they knew could provide the best expertise. Blau's interpretation is that this is because lesser experts knew they would not be able to reciprocate. Very likely, but the 'common' colleagues might also be reluctant about reinforcing hierarchy at their workplace. Nearly the same thing, yet not asking superiors keeps hierarchy implicit, whereas getting advice both parties know cannot be reciprocated makes it, for the moment at least, very explicit. Then of course deference may have its rewards ('old boy' networks, remember), although it seems that we sometimes seek out weak ties, not because of their higher worth but because stronger ones are too demanding. The 'Lin effect' (cf. above) only in reverse, those low in OS do not fail to reach higher OSs, they deliberately refuse to seek them out.

Irrespective of the frequency or size of flow of interpersonal ties or conduits, their 'strength' or 'weakness', even among the closest of friends, mates, partners there is no guarantee against 'flow reduction' or 'filtering'. Some topics, incidents, external contacts just cannot be disclosed – especially, perhaps, in the closest of relationships ('do I have rivals?'). Call them 'explosive' items – if disclosed the tie would be badly damaged or permanently broken. Of course, less dramatic items being held back or hidden is probably more frequent, 'another pair of shoes, another chainsaw'. If surmised, reduced confidence is the likely result, not more serious or permanent damage.

From ties and networks into social capital

In recent years, research sub-field, or should we say subculture? of *social capital* has enjoyed a noteable increase in social science textbook and other publication. In essence this is both a generalisation of ties and network conceptions, and an expansion of that field. It is rooted in several disciplines, Granovetter's bases in economic sociology (labour, employment) being only one. Anthropology is another, where Barnes was soon followed up by colleagues such as Bott and Boissevain, the latter his fierce critic. A third distinct base is urban sociology, where the works of Fisher and associates (1977, 1982) remain substantial, even if its senior author has changed fields later. A fourth is social psychology including social medicine, mental health and even social work, e.g. Rush & Rusbult (2004). All this and more is valuably exposed in a recent local textbook, Bø & Schiefloe (2007); its title in translation *Social landscapes and social capital*.

Many texts including the latter depart from quotes taken from very unlikely couple, Bourdieu and Coleman, both of whom have proposed definitions of 'social capital' (Bø&Schiefloe 2007:160-62, cf. Halpern 2005:7). One would expect conflict to ensue when two major brand names from opposite corners of the ring[23] are put together, but no, it's seen as harmony, cumulative scientific work. It takes superficial reading, especially of Bourdieu's œuvre to take such a stand; he was a fierce sociological critic of neo-liberalism whereas Coleman never opposed it. Bourdieu's definition on p. 119 in Bourdieu&Wacqant 1992 should not be quoted without his caveat on p. 96:

> For instance the use of open concepts is a way of rejecting positivism – but this is a ready-made phrase. It is, to be more precise, a permanent reminder that concepts have no definition other than systemic ones, and are designed to be put to work empirically in systematic fashion. Such notions as habitus, field and capital can be defined, but only within the theoretical system they constitute, not in isolation.

So the left corner champion insists that one should buy his entire package, not slice out isolated single bits, or in keeping with the metaphor, fight the whole match, not only exchange single blows. It is his fame, not his doctrine which seems to come handy for the less knowledgeable.

Yet we are unlikely to see that professional (if less knowledgeable) interest in conceptions of networks as social capital is going to decrease. Even if fuzzy and isolated, these concepts remain intuitively manageable. Whether we think of them

as networks or not, we all have relations, acquaintances etc. and sometimes try to work, to effect results, through them[24]. The question is how, and how much or little academic research and intellectual efforts will help, if at all.

Ideological aspects of social capital

Some 40 years ago we saw efforts to cast Tönnies' *Gemeinschaft* concept as 'ideology', with Bell&Newby *Community studies* (1971) as a main effort. Such ideas met with a following later, as seen e.g. in Fisher et al. (1977:196), their attack on our 'Arcadian myth'. True, rural life may be cast as idyllic yet in other epochs as backward, dirty, primitive – anything but idyll (Willamson 1973/1985). Further, community critics forget that Tönnies' counterpart, *Gesellschaft*, has been cast as ideology as well, notably by the young Habermas in his "Technology and science as 'ideology'" (Habermas 1969), and later, by no end of neo-liberals and their opponents no less.

Now what about network or social capital approaches – do they manage to avoid similar ideological faux pas? Their authors and adherents are at pains to present themselves as 'neutral science', a view less than convincing however. Ties, nets and social capital are all too often cast as resources, something good, supportive, a tool towards mental and physical health for example, and towards social cohesion, community spirit or civic participation (Putnam). In recent work Lin et al. (2008) introduces the term "position generator" for processes that apply ties, networks or social capital. Whereas Bourdieu (1979:166) speaks of his fully contextual social capital as regarding for example

> … les "ratés" …qui … ne disposent pas du capital social nécessaire pour le plein rendement de leurs titres scolaires,
> involving
> … la redefinition de positions anciennes ou de l'invention de positions nouvelles et bien faites pour éviter le déclassement aux "héritiers" démunies de titres et pour offrir aux "parvenus" une contrepartie approchée de leurs titres dévalués.

that is, as position underminer or 'fall soother' rather than 'generator' – solace for the disappointment over positions hoped for but not attained.

True, there are occasional flashes of ideological self-insight among today's 'social capitalists', e.g. when Bø&Schiefloe (2007:216) cites Wellman (1981):

"When one looks only for supportive ties, one finds only supportive ties", whereas "we all know intuitively, that ties are not always supportive". And they do mention that it occurs that people do not manage to break out of destructive relations, whether or not labelled 'ties'.

Yet their only mention of "negative social capital" (2007:182-84) deals with organised crime, juvenile and other. Ties, networks and capital surely play a great role in such circles, but we suspect that such ties etc. are not seen as negative *within* those same circles; that is the view of the surrounding 'straight' society of law and order. Ties are negative, for the weaker party, when (brutal) revenge is involved, otherwise their source of power, livelihood, even wealth and prestige for some.

Wellman (1999) contains an effort to follow up on his cited insights, to deal with tie support as a variable allowing negative values too, with ties still lasting. The task is laudable but seems to prove difficult; he remains something of a voice 'crying in the wilderness' (Isaiah 40:39) as against the tacit ideology of the bulk of Anglophone social capital studies.

No games over social capital

I have been struck by the rare mention of game theory and similar approaches among the adherents of tie, network and social capital research. Competition, conflict, hostile relations through ties are regularly treated as absent; no application say of von Neuman's once celebrated Minimax principle: What are we to do when facing opponents out to incur maximal loss or damage on us? A softer version of similar thinking is Goffman's "Expression games" (1970), trying to account for the fact that an amount of deceit or dissimulation is involved in most social relations. His lucid typology of moves – unwitting, control, covering, uncovering and counter-uncovering – has its problems, not to be discussed here. And most of his examples are drawn from the world of espionage. Yet his final advice is worth quoting:

> Surely every adult who has had a friend or spouse has had occasion to doubt expression of relationship and then to doubt the doubt even while giving the other reasons to suspect that something is being doubted (1970:81)

Now as for Granovetter and his SWT, the reason gaming and deceitful relations are not mentioned must be that he is a soft-spoken and unchallenging opponent of like approaches. It is often overlooked that his examples of successful weak ties

are instances in striking contradiction of all theories of rational exchange, from Walras through Blau to the young Elster. Someone we know only faintly does us a great favour, without expecting us to reciprocate in any way, except perhaps for expressing some gratitude. Even Mauss (1925/1969) theory of gift exchange is contradicted by SWT, its 'weak is valuable', or 'value for nothing' aspect.

I think we should be grateful to Granovetter for establishing this, that strangers may support each other even with nothing in return. How often and how regularly this happens is quite another matter however. I certainly do not support the opposing theories of Walras et cie. one bit more. But I propose for us to leave the idea that 'weak ties' are invariably, or most often valuable. There is ideology involved, ideas of 'the lonely crowd' being cohesive even if most of its ties are weak, not strong, cf. Putnam (2000). Acclaimed and criticised, his worries over reduced civic engagement is exposed *to be remedied*, in the end with some relief, "The collapse *and revival* of American community".

I would like to suggest that any social relation is of mixed positive-negative content, certainly not excluding the closest, most intimate and long-lasting. For the better we know a person, the more likely are we to learn about his or her weak or negative sides – those too. Renaming relations 'ties' cannot ever remedy that. And the idea that 'there ain't no bad ties but broken ties' is a typical 'sometimes true' statement – like SWT itself. Some 'bad ties' are indeed broken right away but we also know that they can survive, even for lifetimes, albeit involving e.g. corporeal violence. And they can be broken, as witnesses the rising divorce rate, a symptom perhaps of our tolerating less, yet certainly symptom of the mixed character of social relations.

As I read Vaughan's (1986) *Uncoupling* it can serve as a reminder not only of the mix, but of the *limits of ties* as well, fuzzy perhaps yet potentially 'there' in any tie or relation: One first limit introducing damage, distrust etc. while maintaining the relation, the other its being broken – 'explosive items' remember – forever or for a prolonged period. Certainly, relations even to the closest of kin – parents, siblings, offspring – can be broken, family tough conflicts being a regular occurrence. The more usual thing is probably for like relations to be maintained albeit often in diluted form, full of distrust, hostilities, reproach – Freud and later psychotherapy, say no more.

A contribution from anthropology

Hannerz' (1980) impressive anthropological network analyses[25] presents his idea

of the city as *a network of networks* (p. 200 ff). His typology follows: encapsulation, segregativity, integrativity, and solitude (p. 255 ff). The first type of net is strongly interconnected having few and fragile ties to other nets or persons. The second type of net manages to have "…two or more segments in his (sic) network which are kept well separated" (p. 258). The 'double life' image is mentioned here, and types of 'shady business' might well have been, dope use or peddling, say. "Integrativity is possibly the most ordinary way of life in the city… (Here) one individual's network is spread among domains without very strong tendencies to concentration in any one" (p. 259) – clusters, not segments. Solitude finally is given roughly as individual isolation – Wirth's classic picture of inner city life as disintegration. In sum, Hannerz claims that "(i)n time, the life of an individual may encompass all (four). Childhood (as) encapsulation … adolescence tendencies toward segregativity … Adulthood a phase of integrativity. Solitude may come with old age" (p. 260).

Briefly, there is a probability, perhaps, but no guarantee at all that a strong or close tie will bring you more reliable or complete information than a weak one; nor that a the latter's information will be more innovative than that of the strong. Persons typically transmit, distort, exaggerate or withhold information, no matter the strength or weakness of their ties. Rank or hierarchy may interfere with such flows, cf. Lin, Blau above. Among peers, especially high-ranking, the form will vary: If cooperating, as a (vulnerable) need to confide in each other. If competing, as a shielding or distortion of (parts of) the information, ultimately even breaking the tie[26]. Granovetter (1983:227) himself cites Bearden et al.'s study of the network of US top centers of business as of 1975, which:

> …contains both the coordinative leverage of weak ties and the cliquishness of strong ties; national cooperation among most firms as well as competitive antagonism between clusters; unity and conflict simultaneously.

Hannerz' type segregativity points to a problem hiding in another of Granovetter's theses: if A is strongly tied to both B and C it is unlikely to be not a direct tie, weak or strong, between the latter two. But ties, or relations, arise in social fields, linked or separate. If A has a strong tie to his or her mother (B) and another to a colleague at work, or to a fellow soccer or catwalk fan, coke sniffer etc. (C), there is no, or not much reason, to assume any tie at all between C and B. Yet, separate clusters may result, informally segregated according to the fields, hierachic or not, in which they occur.

Static or dynamic capital?

"… (E)verything could have a career, whatever it was", says Howard Becker (quoted in Otnes 2009:113) and goes on: "…that "career" is simply a way of talking about process or history". Our colleagues the economists have been working with static versus dynamic methods and models for decades, with Nobel laureate Frisch something of a pioneer. What now about our much closer colleagues, the 'networkers' and their ideas of 'social capital', is their approach largely static or dynamic? Of course, networks change with participants arriving and leaving etc., i.e. on the individual level, but what about holistic or global perspectives? There is bound to exist longitudinal studies of social networks or capital but I have not located any yet. They may be less amenable to mathematical treatment, just like in economics. And Putnam (2000) certainly is about large scale social change, yet more concerned with properties of numerous networks – networks in general almost – not or not much with following single networks through their histories, panel studies sort of. But the Bourdieuvian *fields* certainly are amenable both to static (e.g. the bulk of his *Distinction*) and to dynamic analyses, both well feasible both with and without mathematical rigour. For the latter case his *Les règles de l'art* (1992) stands out, analysing the origin and changes of the French literary field from Hugo and Flaubert on, both in detail and *ex toto*, very admirable indeed, but also challenging for prospective followers.

The vulgar view

On the vulgar if not even cynical side, consider a book such as Heald's (1983) *Networks. Who we know and how we use them*[27]. Like it or not, this too indicates a possible use of tie and network studies, 'how to use them' in order to augment more or less narrow-minded personal gain, explicitly applicable in 'the best of circles'. Wayne Baker (2000) likewise; well read in sociology etc. his text contain unscrupulous passages:

> Is it somehow unethical to consciously "manage" a network? The fact is that you can't avoid deliberate decisions about your networks of relationships (2000:20).

Well, according to believers sin is probably unavoidable too, yet not a bit less sin for all that. Which indicates that however much we decide in or about our net-

works – and are 'being decided' by its other members – that does not imply that 'anything goes', that just any such decision is virtuous or unselfish, even if SWT gives us some instances of the latter.

Finally

Quotes of Granovetter today tend to fall in three categories: Most frequently, SWT is taken to be indisputable, received knowledge, *doxa*, to be used or mentioned as needed. Second and less frequent there are quotes (Fisher, Putnam) that are positive but sparse, probably glossing over some scepticism, sometimes voicing traces of it. Then there are those who see the need for future, more thorough revisions:

> In short, based on the findings in this chapter, we are not willing to refute the strength-of-weak-ties argument, but we would like to take a closer look at it in the future (Moerbeck&Flap, in Lin&Erikcson 2008:154).

Third come the rare exponents of fundamental criticisms, Bourdieu for a short version, yours truly more extensive.

Anyhow it is high time SWT takes the leap from the explorative to the confirmation stage, lest it would have to be relabelled, from theory or even model to a mere set of hypotheses, a mere 'sometimes true' statement. Encouraging, then, to see Granovetter conclude as mentioned that as for verification, '…the case remains incomplete (1983:229).

But then in contrast, Granovetter's (1990) 'The myth of social network analysis as a special method in the social sciences' paraphrases Kingsley Davis' title, who held as much for functional analysis in 1959. In positive terms, Davis' statement was 'we're all functionalists now' – true, possibly, at the time, quite untenable today. If Granovetter is saying the same thing, 'we're all networkers now', he will face risking the same fate.

Towards the end of his 1990 paper he writes

> There has long been dissatisfaction with the oversocialised notion that society is integrated by mental harmonies, and also by the undersocialised one that rational, atomized individuals, pursuing their own self-interest, explains all there is to know about social life. We as the self-conscious core of relational analysis are in a unique position to offer a solution to both kinds of dissatisfaction, and to bring large numbers of others under our roof (p. 15).

Earlier, he makes it clear that the oversocialised position is Parsonian structural functionalism and its followers. The undersocialised one is not so clearly identified – probably Rational Action Theory (RAT, cf. above). Many will indeed share Granovetter's dissatisfaction with both extremes, yet it is a gross overstatement to claim that network, or relational, analysis is 'in a unique position' to satisfy both dissatisfactions. A number of other approaches are out to fill roughly the same interval – Bourdieu, Giddens, Bauman for example, and some would add even Baudrillard, Foucault and followers. There may be some overlap of approaches, but certainly enough of difference, too, to keep them clearly apart. Luhman was at the outset perhaps too much of a Parsonian, but over the years his brand of functionalism became distinctly non-harmonious, indeed anarchist, so his approach too could count as a competitor to Granovetter's claim.

For SWT in the end there seems to be an urgent need to reconcile the positions of 'incomplete case', and 'unique position' – possible, yet implementation as yet lacking. It is dangerous for a theory or model to be included in the professional *doxa* – it tends to make them immune to counter-arguments.

As for Urry and associates, suffice to mention that his latest title is *After the car* (2009, senior author Kingsley Dennis). No more mention of Granovetter, weak ties and their assumed powers of generating increasing physical mobility. On the other hand it is not clear whether the extended use of private automobiles contributes to strengthening 'community' or civic engagement even though dispersing it, or whether it weakens it. Here, Putnam's stand is moderate but clear: "we all spend more and more time alone in the car (p. 213). Which implies that "*...each additional ten minutes in daily commuting time cuts involvement in community affairs by 10 percent*" (p. 213, orig. itals.), further in his summing up (p. 283-4) that commuting, only 3.5% of which is mass transit, may be responsible for 10-12% of the rising civic disengagement, on par with 'work', and less than half of 'TV'.

I do not want to leave the impression that I disregard the works of Urry and colleagues. As stated earlier (Otnes 2006:147) I hold it in very high esteem generally, and this goes for their later works as well, above all Urry (2009). There are weak points, true, yet minor in the total perspective. For a few strong examples, even if the 'sample' of Larsen et al. (2006) has N=24 only, the study of these youngish group of architects, fitness centre employees, porters and doormen, hints that Tönnies' *Gemeinschaft des Ortes* is not dead after all, only somewhat diluted: Their table 7, p. 133-4 brings out that 11 of the 24 have *zero* distance to their "closest three persons named as most important". With two answers missing this gives 'an astonishing 50%' of close neighbourhood contacts for young, 'modern'

British (semi-)professionals. This distance mean was 15, with a record high of 59 kilometres. We should add here that their close relationships may keep up despite being separated by at most over 6000 kms, mean distance to "the furthest three" being 1027 kms. Even more important is their analyses of the complex interplay between geographic, network, ICT and other mobilities of persons and artefacts. So to my knowledge mostly solid work; the arguments based on 'weak ties', however, does not add to the strength.

As for Granovetter, excepting his SWT similarly: His other work is fair enough, pace Bourdieu, his ideas of embeddednes for example is much to be preferred to the approaches of market, neo-liberal or analytic sociologists' models. On this count, Bourdieu's criticism is much too harsh. I can agree with his opposing the 'networker's' focus on individuals only as 'nodes of nets'. His point is, as I see it, that not only individual actors but their social relations as well can form links. So in a field of three, A may relate not only to B and C but to the B-C relation (etc.) as well. In the usual case, n-person fields, not only can each agent relate to each other pair's, triple's etc. relation; all subgroups may form relations both to single agents and to other groups among the n. And for each group, emergent properties are likely to form, 'group cultures', distinctive shared meanings etc.[28] Mathematics can probably solve such added complications even if considerable. But for the present, basing our analysis on the Bourdeuvian field conception is advisable. Meanings, *Sinne*, are notoriously difficult to analyse extensionally; they remain intentional, residing 'inside' consciousnesses, individual, group, field or collective.

Notes

1. 82, not 100, due to incomplete information for the rest. This 'completeness rate' varies between tables and variables, down to 77 or even 50, 82 being something of a maximum.
2. At least, as several of GAJ's case stories bear out, the connecting nodes, brokers or mediators, often rely on other mediatiors, united by ties, strong or weak. They also bear out that a connecting node or 'other end' often initiates the link, not only the job seekers. A reason may be that hiring through ties is less consuming in time and money than ads or competitions, committees etc.
3. Or 64-15=49 if 100 persons are taken as the percentage base.
4. A question was asked, interview guide, GAJ p. 202, but not analysed, it appears,
5. It is not clear whether this eludes the control group problem, i.e. whether unsuccessful job searches are included in the sample – probably not.
6. In their central table 1 a problem seems to be hiding, a note saying that "the pair-wise

analyses were based on the Ns shown in the lower off-diagonal cells", these figures being only 202-4 for first job and 170-73 for current job. Assuming that only seekers, not their targets and employers were interviewed, this would seem to indicate lacking data for well over half the sample of 399, i.e. 51% and 43% respectively, i.e. response rates of only 49% and 57%.

7. Fisher et al. (1977, 1982) discusses diverse types of networks in urban settings, stating that "(m)ost analysts ignore variations in the *kinds* of relations people have with one another and define relations dichotomously, as either existing or not" (1977:41). Note that he speaks of relations rather than ties, his references to Granovetter being not negative but very few.

8. Excluding the rare cases where a vacant position is split to allow in two or more new incumbents.

9. It is usually conceived as single persons meeting face-to-face, but such was certainly not Weber's intention. He makes it clear that his *soziales Handeln* may be both one-one, one-many, many-one, and many-many: Adam meets Eve (and following generations of lovers); a politician, actor etc. addressing his/her audience; the audience applauding, or booing, him/her; football teams or soldiers at war engaging each other.

10. The claim that fields are systems of 'objective positions' seems not entirely convincing, perhaps open to some of the same criticisms as those voiced against graph or mathematical 'social network analysis' in footnote 17 below. Yet the following analysis and conclusions are in conformity with Bourdieu's approach.

11. Bourdieu's (2000:12) low opinion of the work of Granovetter etc. compares it to the "constructions laborieuses par lesquelles Tycho-Brahe s'efforçait de sauver le modèle géocentrique de Ptolemé contre la revolution copernicienne". Arrogant perhaps, yet not beside the point. Cf. also his p. 242. on the shortcomings of his 'embeddedness' and 'network' ideas, "…ignorant la contrainte structurale de champ…" etc.

12. Although not stressed by its authors, we note that an action may have not one but several *Sinne*, (meanings, intentions), cf. on Goffman's 'expression games' below, or Østerberg's (1993:95 ff) 'amphibic relations'.

13. Otnes (1997:182-3) comments on why the inverse, *being acted on*, knowingly, willingly or not, is not explicitly mentioned in the definition – perhaps anathema altogether in modernity; we abhor feeling tricked or forced out of our presumed, fragile autonomy.

14. 'The two mirror problem'. An eloquent case in point is the scene in Joyce's *Ulysses* where Dedalus and Bloom finally meet: "What, reduced to their simplest reciprocal form, were (their) … thoughts? (Bloom) thought that he thought that he was a Jew whereas (Stephen) knew that he knew that he knew that he was not".

15. Of course, some instances of interaction are so intense as to be remembered 'for ever' even after a single meet.

16. The anecdote must have been transmitted orally, Barnes was repeatedly guest researcher in Norway; no trace of the anecdote to be found in his writings. We also note that his site of research, Bremnes, carries its real name, not a pseudonym; that custom was not yet established.

17. This sub-discipline does not seem to provide answers to the 'emic-etic' problem of the anthropologists, cf. on White above. Further, what predictions of social action, social change, follow from an etic social network, even if mapped in exact, mathematical detail? Cf. Fisher et al. (1977:41) "Under this mathematical firmness, however, is some definitional quicksand".

18. A passage from Tournier's (1972:53-4) Robinson is an eloquent statement: "…mes relations avec les choses se trouvent elles-mêmes dénatures par ma solitude… Le langage relève en effet d'une façon fondamentale de cet univers *peuplé* ou les autres sont comme autant des phares créant autour d'eux un îlot lumineux … Les phares ont disparus. Maintenant … les tênèbres m'environnent".

19. We may speculate that FRs, especially for weak tieholders, are not really fields in the full sense, only occasions for brief guest appearances, in a field where one's position has been lost, or nearly – 'bordering', cf. Otnes (2004:76).

20. In different terms the works of Fisher and associates (1977, 1982) exposes tie age, duration and fields of origin and recall, extensively and in an excellent way.

21. Here, cutting off participants' ties to everyday evening home intimacy serves as the intentional stress stimulus.

22. The last two periods are Larsen's quote from Collis: *The survivor's guide to business travel* (2000).

23. Indeed, Bourdieu's film is entitled *La sociologie est un sport de combat*, and I seem to remember that Coleman practiced boxing in younger years; Wacquant still does.

24. Less visibly, and less palatable perhaps, we are also sometimes the targets of others', our acquaintances', efforts of 'working us'.

25. Curiously not cited by Granovetter. May we surmise that his personal professional network around Harvard (now Stanford) is rather closed, containing mostly strong ties? Weak ties especially to the softer approaches of Chicago sociology are notably lacking, perhaps even dismissed as sub-standard, despite weak ties and new information?

26. Of course keeping the tie may prove better, remaining in touch even after parties surmise that some information be skewed or biased. 'I know that you cheat, and know that you don't realise that I know' – a case of effective counter-uncovering (Goffman).

27. A somewhat more palatable Norwegian companion volume is Marthinsen (2006).

28. Imagine mapping a parliament's networks between individual MPs only, with no regard for its parties, lobbies, constituencies or geographieds, alliances, fixed or fleeting,'old boys' nets etc. etc. Or in a web virtual game, or Shubik's famed 'So long, sucker' game.

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Starred items (*) are taken from Granovetter's homepage:
http://www.stanford.edu/dept/soc/people/faculty/granovetter/granovet.html, read Jan-Feb 2007
http://sociology.stanford.edu/people/mgranovetter/
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