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Local communities as meso structures

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Resumen

Entre el nivel micro y el nivel macro: meso. Si el nivel macro está definido por la regulación nacional, estatal o del mercado y el nivel micro por la regulación interpersonal, una agencia de regulación intermediaria de mayor importancia ha sido definida como "comunidad local" (Wellman, Fischer). Aparte de las dimensiones organizacionales (organizaciones locales, clubes, tiendas...) e institucionales (poder local, partidos...) locales, es posible definir algunas propiedades estructurales pertinentes de los sistemas de relaciones interpersonales privadas: uno es el grado de "cerrado" (closure) local (Barnes: redes locales vs. transversales), o la "dualidad" de estos sistemas. Apoyándose en la idea de que la eficiencia de los "puentes" reside en el tipo de cliques que conectan (Lin), es posible definir tipos variados de micro-estructuras, cuyas distribuciones en diferentes localidades son indicadores sucedáneos o aproximaciones de las diferentes meso estructuras de sistemas relacionales como combinaciones de redes "locales" y "no locales".

Palabras clave: Niveles micro, meso y macro – Sistemas locales de salud – redes sociales.

Abstract

In between micro and macro levels: meso. If macro is defined by national, state or market regulation, and micro by relational interpersonal regulation, a major agency of intermediate regulation has been defined as "local communities" (Wellmann, Fischer). Apart the organizational (local organizations, clubs, shops...) and institutional (local power, parties,...) dimensions of localities, it is possible to define some pertinent structural properties of systems of private interpersonal relations : one is the degree of local closure (Barnes : local vs transversal networks), or the "duality" of these systems. Grounded on the idea that the efficiency of "bridges" rest upon the kind of cliques they connect (Lin), it is possible to define various types of micro-structures, the distributions of which in different localities are proxy indicators of the different meso structures of relational systems as combinations of "local" and "unlocal" networks.

Key words: macro-micro-meso levels – Local Health Systems – Social Networks.

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An assumption: the existence of “Local health systems”

Regulation of health systems is a major issue in many countries. But definitions of what are “health systems” vary. Our research team makes the assumption that “local health systems” exist as systems which can differ from one place – to use a vague term -to another². We are not primarily interested in the classical geographical description of the differential provision of health services in various areas, nor by the differential rates of morbidity, and things alike. We are interested in local health systems as systems characterized by various social structures.

Various institutional orders

Institutions, organizations, voluntary groups.... which are settled and which provide services in a locality are components of this local health system. In line with Fischer’s argument on the role of specialized local institutions supporting the emergence subcultures (Fischer,1982), it is possible to analyse how the nature, the variety of these institutions, and the kind of inter-organizational network they form, produce local specificities of the normative patterns guiding professional and lay behaviours and of the management of public health. This inter-organizational network is a part of the institutional order of the locality.

Various discussion networks about health

Another component of these local health systems is the relational system in which people receive and discuss either general information about illness and treatments, or specific information about local health care facilities, quality of hospitals and practitioners³. That relational system produces and transforms representations, norms, and knowledge about health and treatments, judgments on the quality of health services, and the diffusion of reputations which regulate the “market”. It also contributes to social control (Ferrand, 2000).

² This presentation is a by product of a research granted by Programme CNRS «Santé-Société» . Axe: «Devenir des Systemes de Sante», and conducted by Geneviève Cresson, Alexis Ferrand, Philippe Lardé, in the CNRS Laboratory « Centre Lillois d’études et de recherches sociologiques et économiques » CLERSE.

³ I have based this analysis on the same approach of networks of discussion as that used to study the normative control of sexuality (Ferrand, Mounier, 1994,1996 ; more theoretical presentation and final results :1998)

Therefore we have to

- define and observe these relational systems;
- identify their various structural properties;
- uncover how various structural properties produce various outputs.

Structural properties of discussion networks about health

Now the question is to decide to what extent can these discussion networks be understood as relational systems and as specific social organizations in between global universalistic constraints of "The national health system", and very particularistic interpersonal exchanges of information and support among people? In other words to what extent should we define a relational system with its own structural properties and functional effects at a meso level?

Based on the theory of social capital it is possible to stress the variations of structural properties of discussion networks in diverse localities; for example, structural features which allow circulation of information between "common people" and "specialists". Specialists are people who work in the domain of health care: they form social milieus – networks - which are more or less bounded or open to other population categories. Specialists are also people who have a deep or long experience of illness and treatment: to what extent do they share their knowledge in various social circles, or do they keep it in the narrow realm of close intimate... We have examined such structural properties, comparing two localities (Cresson, Ferrand, Lardé, 2001)

These approaches are quite classical. They inherit the tradition of communities' studies, even when methodologies are modernized. The basic assumption of this paradigm is that local systems exist, and that we have to uncover their formal and functional models.

But that assumption cannot be taken for granted for all components of localities.

An empirical fact is that people maintain personal networks of discussion relations which encompass more or less large numbers and proportions of partners living "in the same city" but also "elsewhere"⁴. This evidence suggests that local relational

⁴ It was a basic idea of B. Wellman analysing East York during the eighties (1979,1982,1988).

systems are more or less open to outside contacts. This formulation does not change the basic assumption regarding the consistency of the local system. Another formulation is possible, a little bit more complex, but also with greater heuristic capacity. To introduce it, let's go back to Barnes' analysis.

Barnes' insights: the local-nonlocal social system

He has described Bremnes in terms of territorial and industrial order (two fields of institutional order), but he has also stressed how the global structure of friendship and kinship networks ("the third field" and personal networks which compose it) intersect with various formal circles and can be thought of as an unbounded network.

The third social field has no units or boundaries; it has no coordinating organization. It is made up of the ties of friendship and acquaintance which everyone growing up in Bremnes society partly inherits and largely builds for himself... For our present purposes, however, I want to consider... that part of the total network that is left behind when we remove the groupings and chains of interaction which belong strictly to the territorial and industrial systems. In Bremnes society, what is left is largely, though not exclusively, a network of ties of kinship, friendship, and neighbourhood. This network runs across the whole of society and does not stop at parish boundary. It links Bremnes folks with their kinsmen and friends in other parishes as well as knitting them together within the parish. A network of this kind has neither external boundary, nor has it any clear-cut internal division... (Barnes, 1954, p.237 sq.).

Let us keep in mind two ideas:

a) We can think of a social system formed by local and nonlocal elements (the three "fields" in Barnes' terms) each of them with different structural properties, and different functions.

b) We can think of one of these fields as an unbounded network which has strong "local" properties and important local effects on the production of social representations of status hierarchy and of consensus (it is the aim of Barnes to demonstrate how the "third field" is a crucial element for the social and political regulation of the global system).

Then the question is no longer the “openness” of an a priori existing local system. We need new formulations: we can use the idea of the “duality” of such a system which should be defined as local and simultaneously nonlocal.

A bridge in the total system: three elements

The local-nonlocal duality can be formulated in structural terms with the idea of bridge. A bridge is a relation; terms of which belong to two different and unrelated sub-networks. The bridge, as such, is in none of the two sub-networks. But each sub-network structure cannot be characterised without the bridge; and the structural properties of the bridge cannot be defined without the properties of both sub-networks it links (eg. Lin, 2001). This kind of reality has to be conceptualised as the whole system formed by three elements “sub-network A”, “sub-network B”, and the bridge ; or “structure A”, “structure B”, and “kind of bridge”. In the same way, definition of duality implies simultaneously an inner structure, structural properties of the positions where the bridge is connected, and the quality of the bridge itself. The frame of analysis must take into account the whole system formed by the local and nonlocal elements.

“Duality”: intersection between local and nonlocal social units

People living in various localities⁵ are connected with various people living there and with people living elsewhere. Localities, the “there”, exist as institutional collective orders (they are administrative and political territories, they encompass specific local agencies, voluntary groups, and so on), and as differentiated social context offering various opportunities of encounters (composition of the population, residential segregation, and so on). But, in the frame of analysis proposed, we have to define how the organization of territorially bounded groups and institutions intersect unbounded relational systems; or how localities can be characterized by their “forms of duality”, id est, by their forms of [inner-outer] connectedness? We can build formal types with an oversimplified opposition

⁵ Some readers can consider this emphasis on locality as deliciously sixties flavoured. I remind them three facts : a) even if people can seek medical information on the web, even if illness has a strong symbolic and imaginary dimension, health problems are very concrete and constrain people to go back to strong practically efficient social supports, often local ; b) one of the most important factor in choosing a practitioner is that he is nearby ; c) the failure of macro-regulation of curative health costs, the necessity to develop prevention, the attempt to rationalize health care by cooperation between health professions, have induced a strong political involvement in the development of local health policies.

Forms of duality		External connectedness	
		Strong	Weak
Internal Connectedness	Strong		
	Weak		

Difficulties of empirical analysis

If we are interested in social processes which occur in limited circles of elites or specialized professional groups, it is possible to trace the total network of all actors concerned (eg. Laumann & Papi, 1976; Galaskiewicz, 1985). But if we are interested in social processes which occur in "global" population of localities, we can only use personal network surveys: the proportions of various kinds of personal networks in a given population can be used as indicators of the unknown, underlying, relational structure linking this population.

Proponents of formal structural approaches to network analyse can criticise the weakness of such indicators, but let me argue that

- conversely one can easily notice the incapacity of total network approaches to give any account of collective processes at the meso level when they can't be expressed by relations among a limited number of traceable (often collective) actors ;
- social network analysis is evolving from – I go back to the distinction made by C.Levi-Strauss – a "mechanical" approach to a "statistical" one. The mechanical approach understand (exhaustively complete) data as a true expression of a prescriptive social order, whereas statistical approach understand data as approximate expression of a social order based on individual preferences limited by proscriptions rules. The description of the properties of a total network by triad census, and now the statistical evaluation of theses distributions with P* model, open new avenues to the formalization of networks structures by differential statistical distributions of typical sub-structures (in dyads, triads, etc..). When we will be familiar with such descriptions, we will more easily agree that a) we can think of structures as probabilistic models; b) distributions of randomly surveyed typical sub-structures provide sufficient empirical indications on the models of structures of the meso systems we are dealing with.

Empirical illustration

We have observed personal networks of discussion about health, and we have data

- on two categories of relations a) between Ego (by definition a local actor) and partners who live in the same place (local relations, label = "L") ; b) between Ego and partners who live elsewhere (nonlocal relation, label = "U");
- on various compositions of personal networks which combine local (L) and nonlocal (U) relations.

These various combinations can be simplified to arrive at a limited number of pertinent types of personal networks which should be understood as types of micro-structures. Table 1 displays

- in the left column, the patterns of composition of networks of confidants about health questions. Each letter represents one relation, "L" for a local relation, "U" for a non-local relation.

- in central columns, the frequency, and the percentage in the total sample, of each pattern.

I have grouped different patterns (several rows) in a priori types of micro-structures.

- in the right hand columns the table indicates labels and global frequencies for each type of micro-structure.

Composition of networks				Type of relational micro-structures
Local	Nonlocal	N	%	
No relation		92	17,79	CENSURED 17,8%
L		162		ISOLATED DYAD 31,3%
LL		78	15,09	LOCALLY BOUNDED 24,0%
LLL		35	6,77	
LLLL		7	1,35	
LLLLL		3	0,58	
LLLLLL		1	0,19	
LL	U	16	6	DIFUSER 4,5% More local than nonlocal relations
LLL	U	4	0,77	
LLL	UU	1	0,19	
LLLL	U	2	0,39	
L	U	31	6,00	COSMOPOLITE 10,8% Same or equal number of local than nonlocal relations
L	UU	14	2,71	
L	UUU	3	0,58	
L	UUUU	2	0,39	
LL	UU	5	0,97	
LLL	UUU	1	0,19	
	U	34	6,58	
	UU	17	3,29	
	UUU	4	0,77	
	UUUU	5	0,97	

Table 1. From compositions of personal networks to types of micro structure

I don't want to discuss at length the rationale for grouping patterns in types of micro-structures. The overall idea is to consider various potentialities of networks to articulate local and non-local sub-networks, id est to connect few or many local ties to few or many non-local ties. We can identify

- three types of local micro-structures (top of the table) : a) "Censored" : actors with no confident at all ; b) "Isolated dyads" : a relation between two local partners ; c) "Locally bounded" structures : 3 or more actors, all belonging to the locality.
- one type of non-local micro-structure (bottom of the table) : a focal actor and actors who all live elsewhere ;
- two types of local-nonlocal micro-structures (middle of the table) : a) "Diffusers" : structure where most relations are local; b) "Cosmopolite" : structure composed of an equal or greater number of non-local than local relations. Both types contribute to connect local social life to external relational fields. The first, due to a higher proportion of local ties, is probably more able to diffuse locally external resources and information; the second, due to a higher proportion of external ties, is probably more able to capture more and varied resources in the non-local network.

I agree that others groupings can be discussed (the issue is to identify various “bridging” properties of micro-structures)

The data show that

- a basic property of the local network is to be very sparsely knitted : 17.8% of inhabitants have no relations, and 31.3% belongs to an isolated local dyad;
- only a small proportion of micro-structures (4.5 + 10.8%) have the property of combining local and non-local relations;
- there exists a very interesting type of structure which is totally non-local (11.6) : a guy, living there, is exclusively connected elsewhere.

Forms of duality

Now, it is possible to characterize various forms of duality by the distributions of these types. The important point is that these distributions give information not on the “localities” themselves, but on the ways by which local units intersect nonlocal unbounded relational systems. If we assume that the “real” system is made of intersections between local units and non-local relational systems, these distributions capture a partial image of that system; that image is defined, framed, by a “point of view”: it is observed from local residential units, but it looks simultaneously at what is local and non-local in localities.

For the two localities (Lens and Tourcoing) in which the survey was conducted, table 2 shows the distributions of various types of micro-structures.

Types of micro structures	LOCALITIES		TOTAL %
	LENS	TOURCOING	
CENSURED No relation	61 24%	31 12%	92 17,80%
ISOLATED DYADS 1 local relation	92 35%	70 27%	162 31,3
LOCALLY BOUNDED 2 or more local rel.	47 18%	77 30%	124 24%
DIFUSERS: more local than non-local relations	6 2%	17 7%	23 4,50%
COSMOPOLITE: less or same local relations	14 5%	42 16%	56 10,80%

Table 2. Distributions of micro-structures as differential forms of duality of two localities

Comparison of these two distributions indicates two very different kind of intersection between local and non-local units.

- Intersecting micro structures (diffusers + cosmopolite) represent 7% in Lens and 23% (three times more) in Tourcoing.
- Non-local structures represent about 16% in Lens, 8% in Tourcoing (two times less).
- Isolation (no relation + local dyads) represents (24+35=) 59% in Lens, and (12+27=) 39% in Tourcoing.

If we go back to the simplified typology of forms of duality, we can use theses empirical examples:

Forms of duality		External connectedness	
		Strong	Weak
Internal Conectedness	Strong	Tourcoing	
	Weak		Lens

Lens presents a structure sparsely knitted with weak external connections; Tourcoing presents the inverse image: a structure densely knitted with strong external connections.

Conclusions

- a) This paper is an attempt to define "forms of duality" as one kind of structural property of localities.
- b) It suggests that distributions of types of micro-structures can be used as proxy (and readily available) indicators of theses structural properties.
- c) In this example, there is an asymmetry of information: we know "where" the local ties are, but not where the non-local ties are going to.
- d) That weakness must be evaluated relative to the heuristic capacity of the approach proposed. The strong contrast between the two distributions presented in table 2 is sufficient to identify various forms of duality.
- e) A further research needs to survey more than two localities to show how these forms of duality can be one factor to explain the processes of

information diffusion and the formation of social representations and judgments.

f) It suggests that one locality is not per se a meso level reality. We have to think of localities as element of a larger meso system in which local and non-local units intersect. The theory has to deal as much with local organisation of ties as with the more complex and less traceable unbounded network of no-local relations. A locality is not a "local" system more or less open, it is, in a meso system, the specific intersection between non-local and local units.

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