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## **Types of Regulations of Exchanges**

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Abstract : Properties of the contents of ties and of the their sociometric arrangements are maintained by specific regulation processes. The paper discusses - and illustrates with data - the idea that several types of regulation of exchanges in networks can be distinguished as combinations of three dimensions: interpersonal agreement / collective categorical norms / local norms in a networks.

# 1. TYPES OF REGULATION OF EXCHANGES

## 1.1 INTRODUCTION

The more general and classical definitions of social capital recognize two dimensions:

- a structured network of ties,
- a set of resources which flows through the ties.

For example, P.Bourdieu 's definition emphasizes the dimension of resources (Le capital social. Notes provisoires. *Actes de la recherche en sciences sociales*, 1980, 31 : 2-3) :

«The volume of social capital own by a specific agent depends on the range of the network of ties he is actually able to mobilize and on the volume of economic, cultural, symbolic capital owns by everyone linked to him. »

The capital of alters, their resources are defined as elements of Ego's capital. To be used as capital by Egos, resources have to flow from alters to ego who does something with them in the line of his interests, or resources have to flow from alters to others persons in a way which interests ego. In both cases there is a circulation of resources which change of ownership.

James Coleman emphasizes more the structure of the network (Social capital in the creation of human capital. *American Journal of Sociology*, 1988, Vol 94, p.95-120) :

«social capital constitutes a particular kind of resource available to an actor.../ Social capital is defined by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions ... /.. (p.98).. Unlike other forms of capital, social capital inheres in the structure of relations between actors and among actors. It is not lodged either in the actors themselves or in physical implements of production. (p.98) »

Later in the paper, Coleman came to define one of the more important effect of the structure. He writes:

« 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. This obligation can be conceived as a credit slip held by A for performance by B... (p.102) »

This form of social capital depends on two elements: trustworthiness of the social environment, which means that obligations will be repaid, and the actual extent of obligations held. But trustworthiness finally is said to depend on the closure of the relational structure (that means on the possibilities for actors to sanction a deviant behavior). In that respect structure is important as channel through which resources flow, but also as condition for social control.

In both definitions resources flow. And Coleman goes further in defining conditions of social control. But we don't know what kind of norm that control is supposed to impose. The background of both definitions implies something like a norm of reciprocity. But nothing is said to define how balance can be obtained between resources given and resources received. A kind of reciprocity must exist, but there is no principle to define how to reach that reciprocity. A norm imposes to maintain reciprocity, to reach a certain balance through exchanges, but the evaluation of content is not defined by a norm. It is an old question, a classical difficulty for exchange theory.

The basic idea of that presentation is that even if we find interesting results about the effects of social capital we will define a poor theory unless we are able to understand how evaluation of resources are

performed in networks. We can imagine that a part of researches on social capital will have the same output as those on social support: a lot of empirical results gathered around few narrow common propositions and a lot of contradictory small pieces of theory.

The idea is that reality is complex. Even if epistemology recommends parsimony in the definition of models trying to approximate empirical data, we have to preserve the theoretical possibility of complexity. An expression of that complexity is that **several types of regulations are simultaneously operating in a given social exchange, sometimes in harmony, sometimes with tensions.**

I will understand regulation in that presentation as principles which define what resources can be exchanged in each kind of tie, given the other existing ties. It is a narrow definition, but nevertheless it raises a lot of problems.

## 1.2 TYPES OF REGULATION

### 1.2.1 Structural, categorical, personal order: C.Mitchell

Let me go back to a pioneer book published twenty five years ago. In the introduction of « Network analysis, Studies in human interaction » Clyde Mitchell has defined three ways of understanding and explaining social behavior. He has suggested the conceptual separation of three types or orders of social relationships which can be significant in the analysis of the behavior of people in town. These types are:

a. « *the structural order* by means of which the behavior of people is interpreted in terms of actions appropriate to the position they occupy in an ordered set of positions, such as in a factory, a family, a mine, a voluntary association,... « Here the behavior is interpreted in terms status and roles defined by and inside a specific institution.

b. « *the categorical order* by means of which the behavior of people in unstructured situations may be interpreted in terms of social stereotypes such as class, race, ethnicity »

c. « *the personal order* by means of which the behavior of people in either structured or unstructured situations may be interpreted in terms of the personal links individuals have with a set of people and the links these people have in turn among themselves and with others such as the social networks of the families in Bott's study. «

That third order is described later in the text by Mitchell as the order of one or several networks of interpersonal relations. We can understand the personal order as a kind of regulation of behavior due to embeddedness of relations in networks of interpersonal ties. AND it can be opposed to categorical and structural orders which are grounded on normative principles, specific (as status role) or general (as stereotypes).

Mitchell has given recommendations about the way of using that typology. He wrote: « These three orders of social relationships, however, should not be looked upon as three different *types* of actual behavior, but rather as three different ways of making abstractions from the same actual behavior so as to achieve different *types of understanding and explanation*. By this argument, therefore, there can be no opposition of structural and personal links but only different ways of subsuming the data into explanatory frameworks. (p.20) »

I retain the idea that a relational reality can be analyzed through different explanatory frames because that relational reality combines, mixes the different types of order. In other words, it is possible to imagine that a given reality is regulated by *a combination of various processes interacting*. Then the line of research is to define the various types of regulations, and to identify how they interact and in what proportion in a given network of relations.

### 1.2.2 Trust: P.Blau

The regulation of exchanges by trust is often quoted. Mitchell's typology of orders can be complemented by a discussion about the emergence of trust in dyadic relations as it has been defined by Peter Blau in his classic « Power and exchange in social life ». Even if P.Blau, in a Simelian perspective, emphasizes the triadic nature of exchanges, when he analyses the emergence of trust, he makes the point that trust can be a property of the relation between two individuals, of a dyad, regardless their relational environment. Three arguments support this idea,

- First, trust emerges from common experiences of partners. The kind of behavior and exchanges possible and successful in time  $t$  are the basis for positive anticipations regarding an increasing rate of successful exchanges at  $t+1$ . This process of trust formation tends to allow an isolation of the dyad from its social context. As an extreme case, it can exist in a social vacuum, without any kind of social control.

- Secondly trust is due to investments which cannot be recovered in case of rupture. The story of the tie and time spent to maintain it are like funds held as guarantee. Ego can trust alter if he knows how much alter will loose in case of rupture. And there is no intervention of social control here.

- Third trust can exist when a small number of trustworthy relations exist for each partner. Knowing they have only few alternatives, they are encouraged to make use, and by the fact to maintain, existing ones.

### 1.3 THREE TYPES OF REGULATION

Then we can give the global picture of three types of regulation by combining previous definitions.

#### **Regulation by dyadic trust**

Anticipations of partners are mainly oriented by interpersonal agreement. They are guaranteed by previous experiences and by the amount of investments impossible to recover in case of rupture. Actors are also constrained by the very small number of alternatives available.

Relational control has no importance and in some cases exchanges are totally hidden to others relations of partners.

#### **Local regulation by the network of interpersonal relations**

Anticipations of partners are grounded on shared norms and on the knowledge that the network is able to be informed of a fault and to sanction it.

The network provides alternatives.

Example are exchanges of help between brothers..

#### **Global categorical regulation**

Anticipations of partners are grounded on general norms or stereotypes. Sanctions are imposed by specialized agent or anonymous people as public.

Examples are that specific sub set of Goffman 's interactions in public when they occur among people without personal information.

#### 1.3.1 Articulation between regulations

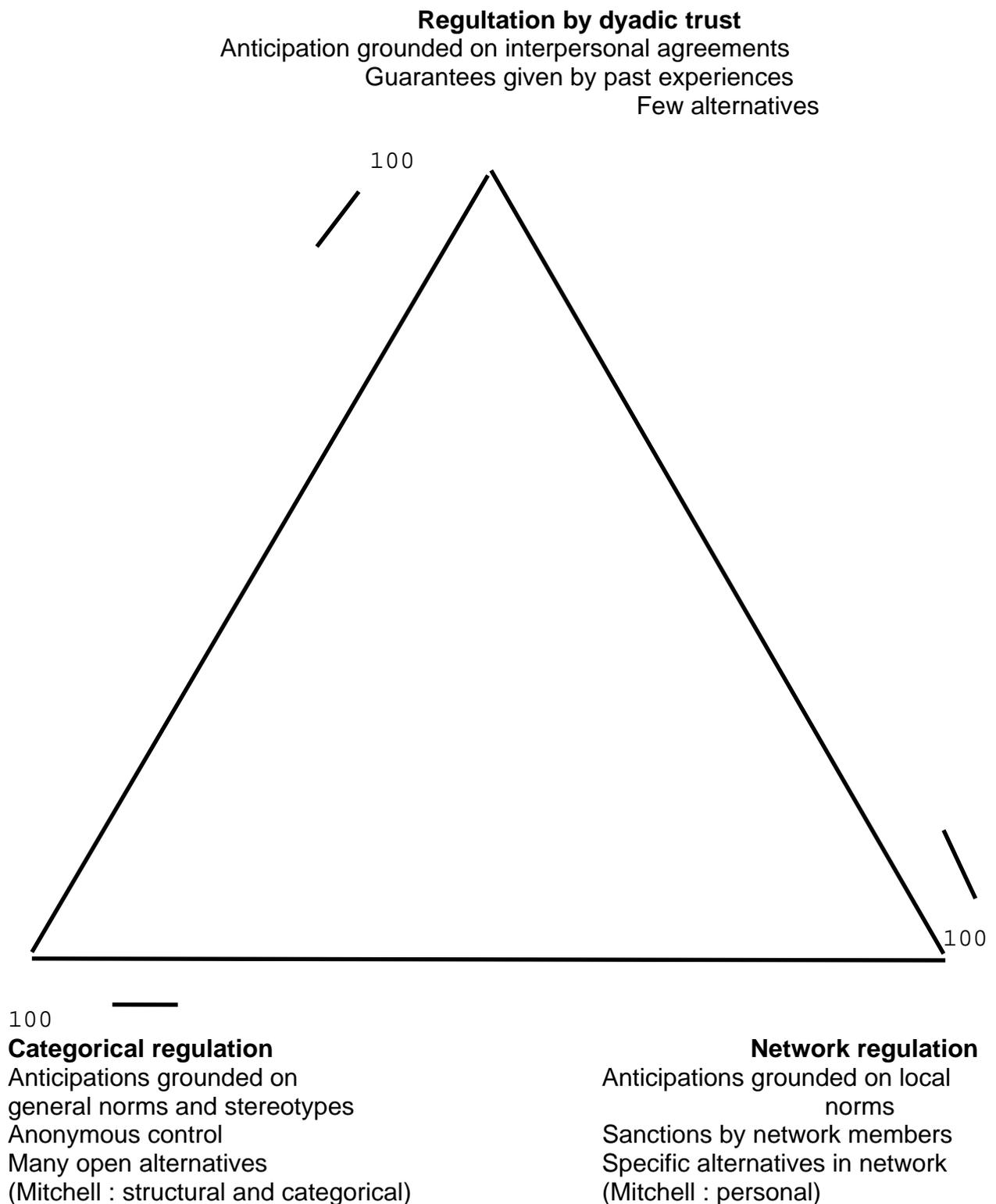
Now, if agree with that simple typology of kinds of regulations, we have to address the question of their operating mode. We can say that these regulations are supposed to work more or less together. They are interdependent. *Each can exert a part of control dependent on the part played by others.* To precise that interdependence, we can say that the sum of their various intervention is a constant. Or, in other words, if we want to weight the intervention of each regulation to analyze particular interaction or exchange, then the sum of weights should be one in all cases, but the proportion of each type will change from case to case.

We can portray that in the classical triangle where the coordinates of a point always sum at one. That graphic representation stresses the interdependency of regulations.

Down left, one can put a point which portrays an anonymous economic transaction with a shopkeeper, mainly under global control.

But moving the point toward the right, we still portray the anonymous control of the law but also the emerging control of a network of customers able to make the local reputation of the shopkeeper

By moving up the point we can introduce more specific agreements between the shopkeeper and a specific customer.



If we look in others directions, at the top we find the more private, close, elective, particularistic, interactions. As example there will be some special kind of friendships or particular interpersonal interactions with kinsman but independent of the other kin relations. Down right we will find relations embedded in some form of social circle, as a club, a voluntary group, some kind of religious local community, or in a subnetwork build up in a neighborhood or among professionals.

### 1.3.2 Role relationships, closeness, embeddedness, and types of regulations

Now some precisions can be given about the meaning of regulation in contrast with others concepts.

#### *Regulation and embeddedness*

Regulation and embeddedness are two concepts interdependent: embeddedness describes, indicates, the level of sociometric dependency of a relation on others relations in a given network. Embeddedness is the major structural dimension of regulation. But regulation is more than embeddedness. It implies also contents, norms, patterns of behavior, symbolic meanings, used as shared frames of references to bargain and to exert control.

#### *Closeness*

The subjective feeling of closeness of a relationship can indicate the dominance of the type of regulation based either on dyadic trust or on the embeddedness of the tie in a densely knit subnetwork of close friends and acquaintances. There is no a priori univocal relation between closeness and one type of regulation.

#### *Roles relationships*

Seemingly, it is clear that when we ask people to label their personal relationships with role flags as 'friend', 'neighbor', 'co-worker'.... these categories capture interesting features of the reality. Mainly they indicate the more frequent social context in which actors interact. Some context imply more often categorical regulation: we can imagine that relations between co-workers are more generally driven by a categorical regulation, when friendship ties should be more often driven by an interpersonal network regulation. These global tendencies can be captured by empirical surveys.

But, again, there is no univocal conceptual relation between roles relationships and kind of regulation: one can be more or less committed with a specific neighbor, at an extreme such relation can be more trustful than with a close member of the family.

## 1.4 DYADIC REGULATION AND DIVERSITY VS CATEGORICAL REGULATION AND HOMOGENEITY

From that global hypothesis about interdependence between the three types of regulations, more precise hypothesis can be deduced. I want to discuss and illustrate briefly one of them. That hypothesis is about the effect of kinds of regulation on the diversity of contents of exchanges.

*We can assume that the more categorical the regulation is, the more homogeneous the social prescriptions and the social controls are, the less varied should be the combinations of exchanges in a given kind of tie.* If a categorical regulation is operating, the classical functionalist idea that the social pattern is represented in the data by the more frequent kind of combination of exchange is pertinent: if neighbor watch more often on the cat than on the grandmother it is because he has to do so. On the contrary, the dyadic regulation allows actors to bargain a large range of combinations of exchanges. Then, by hypothesis, there are no dominant pattern, and a larger number of different combinations of exchanges.

The gap between homogeneity and variety is empirically obvious if we want to look at it.

### 1.4.1 Data

Let's give an example. From a national survey, (INSEE Modes de Vie 1988-1989) I have extracted relations of exchanges of helps during the last twelve months in a working class sub sample.

- Informations are asked about exchanges between households and not individuals.

- Relations between household are described from the point of view of any of the spouses.
- Four categories of role relationships are used as proxy indicators of types of regulation.
- Answers are categorized in 10 types of exchanges (reciprocal or not) possible in each relation.

1) Cares of children .2) Cares, shopping, housekeeping, helps for transport. 3) Administrative help.

4) Needlework, to can food. 5) To care garden or pets. 6) Help for maintenance of house or car, for moving

7) Help for important house works. 8) Help for school work. 9) To borrow money.

10) To borrow various items, others helps

### 1.4.2 From multiplexity to variety

#### *Multiplexity*

A basic property of exchange relations is their level of *multiplexity*. And we see in the tab below the classical result: kinship relations allow a larger number of types of exchanges (2.6), when relations with neighbors or colleagues are more specialized (1.6). That is an empirical trend which can be interpreted as the effect of global normative references as well as of structural constraints.

In all categories of relations, the coefficient of variation of multiplexity is quite similar: standard deviation range from sixty to seventy percent of the mean. In all categories of relations actors have the same tendencies to make use of the bounded liberty to specialize more or less their exchanges. Only a limited range of level of multiplexity is actualized in interactions and exchanges.

Data = INSEE Modes de Vie 1988-1989

Roles relationships as weak indicators of types of regulations :	Nb Total of relations	MULTIPLEXITY : number of Types of exchanges by relation	
		Mean	Coefficient of variation
Parents/Child	1470	2.6	63
Collateral	1208	2.0	71
Friends	1121	1.7	68
Neighb. Colleagues	993	1.6	66

#### *Diversity of arrangements*

Now we can examine another property which is *the diversity of the combinations* of various types of exchanges. Given the mean number of types of exchanges in relations, we exclude the very multiplex ties as special cases and retain relations which comprise from 1 to a maximum of 3 types of exchanges chosen among the 10 cited above. Then the range of multiplexity among the categories of relations is narrowed to [1.4 -1.8]. Also we can control the size of the sample by comparing sub sample of 500 relations of each category.

Then **820 different arrangements of exchanges are formally possible**. That is the diversity offered by the questionnaire to define contents of relations. But observed diversity is, of course, much more limited: it ranges from 58 to 82 (ten times less than the formal possibilities). It is a first indicator of the diversity allowed to actors by the kind of regulation of the ties. People do combine types of exchanges in a more or less restricted way.

Roles relationships as weak indicators of types of regulations	Nb Tot of relations	MULTIPLEXITY	DIVERSITY OF ARRANGEMENTS	
		Mean number of types of exchanges by relation	Total number of different arrangements	Nb of different arrangements to define 75% of the relations
Parents/Child	500	1.8	82	40
Collateral	500	1.6	72	22
Friends	500	1.4	60	14
Neighb. Colleagues	500	1.4	58	11

It is not only the total number of arrangements which is important, as a proof of an average « liberty » of actors, but also the concentration of relations in a limited number of patterns, others relation being more subject to dyadic regulation. If we count the number of different combinations needed to gather 75% of a category of relations, we see for example

- that 75% of parents/child relations are spread over 40 different combinations,
- when 75% of collateral relations are distributed over 22 different combinations.

The diversity in parents/child relations is twice as big as that of collateral relations.

That is interesting because they are both elements of the family institution and embedded in the same kinship network able to control them. Also the length of these two categories of relations by definition is about of same order: you know yours parents since as long as your brothers. Possibility to invest is similar. Nevertheless, we are obliged to say that parent- child relations are much more diverse than collateral, and that they are more often regulated by dyadic bargaining able to find a huge variety of agreements on combinations of kind of helps given and kind of helps received.

But we see also that friendly relations are less diverse than collateral, and colleague or neighbor relations less diverse than friendly relations.

### 1.5 CONCLUSION

For that paper, it is not useful to discuss the *reasons* of existence of these various level of diversity.

The first issue is to accept that they reveal a social fact. Diversity is not a kind of empirical difficulty or a statistical aberration that we have to manage with clever procedures of data analysis, segmentation, classification, and so on... These various level of diversity are the *phenomenal expression of different dominant types of regulation* of exchanges in relations. Some relations are mainly governed by homogenous categorical norms which impose a limited number of possibilities when other relations are predominantly shaped by norms specific to a network, and others are regulated by more open bargaining between actors which produce a large number of possible arrangements.

At the theoretical level as well as at the methodological level these differences in regulations involve *differences in the way to analyze and interpret the building of relations*.

If you examine the arrangements below and the number of relations which are concerned, it is clear that, on the left, exists something like a social regularity, and on the right nothing like a social regularity. In the same population and the same categories of relations, two types of regulation produce facts described by these data<sup>1</sup>.

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<sup>1</sup> Arrangements are the patterns of answers given to

Number of relations for more frequent arrangements of types of exchanges (left col),  
and for more rare arrangements of types of exchanges (right col)

Arrangements of types of exchanges	Number of relations %	Arrangements of types of exchanges	Number of relations %
0100000000	133 26.6	0101000000	1 0.2
0000010000	55 11.0	0110010000	1 0.2
0000100000	50 10.0	1000010000	1 0.2
0000000001	42 8.4	1000010001	1 0.2
1000000000	38 7.6	1000110000	1 0.2
0010000000	15 3.0	1001000000	1 0.2
1100000000	15 3.0	1001100000	1 0.2

The kind of rules which impose homogeneity are not of the same *nature* as rules which are used as references in more open dyadic bargaining : on one hand we can do as if the high frequency of a behavior indicate the content of an unconditional norm, on the other hand we have to uncover *conditional rules of bargaining*. The form of the analysis is not the same, even when the data are collected in the same way and belong to the same data set.