



UNIVERSITÀ DEGLI STUDI ROMA TRE
DIPARTIMENTO DI ECONOMIA

**DOES THE CHANGE OF ECONOMIC INSTITUTIONS
REQUIRE A CHANGE IN VALUES?**

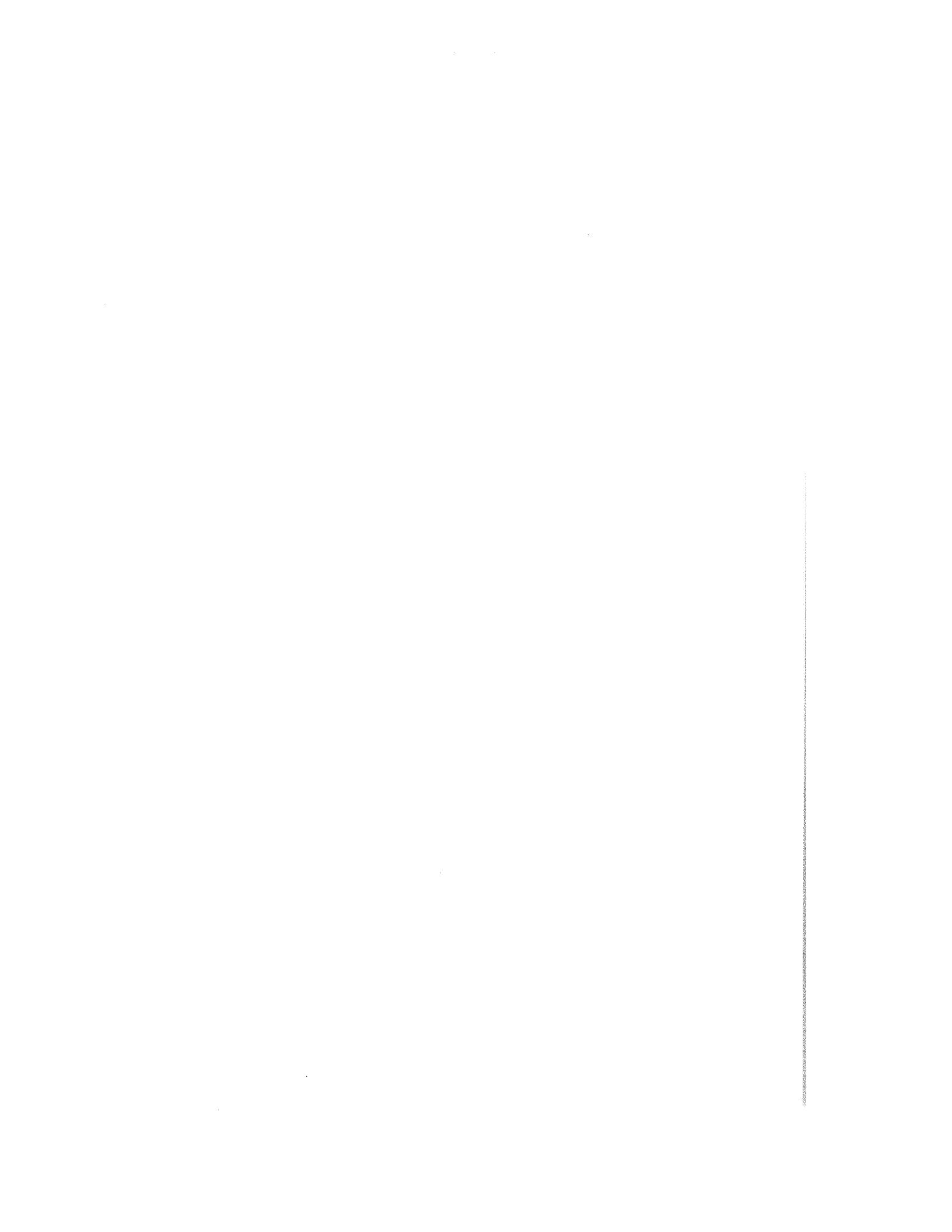
di Sebastiano Fadda

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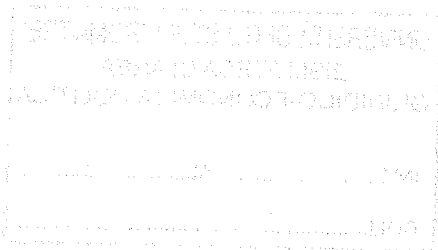
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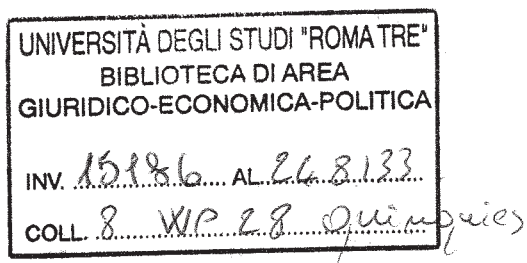


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1. PREVAILING EXPLANATIONS OF INSTITUTIONAL CHANGE

Once a relationship is recognised between economic institutions and economic performance, the change of the former in order to improve the latter becomes both a significant issue of economic policy and an intriguing aspect of the evolutionary process of the economy.

Truly, the problem of properly measuring the direction and the strength of such relationship cannot be considered adequately solved yet. A critical examination of the attempts shown in the literature on this field points out a great need for further research particularly about the adoption of appropriate indicators and their measurement, let alone the definition of institutions itself (Fadda, 2002). Nevertheless these areas are not included in the present contribution; we intend to deal here with the analysis of how economic institutions change and how they can be made to change.

Although, as Schotter puts it, “relative little work has been done on the way norms or institutions change or are revised” (Schotter, 1994), we can trace in the literature quite a few approaches to this theme which we’ll briefly mention here just to show how they all miss one fundamental point which, on the contrary, will be the focus of this paper.

The first approach is based on the principle of competitive selection. This approach can be attributed to North and Williamson. According to it, a process of competitive selection will eliminate inefficient institutions which will be replaced by efficient ones. Changes in relative prices (or, possibly, changes in tastes) would be the main factor capable of turning an efficient institution into an inefficient one, where the notion of efficiency is strictly related to minimisation of transaction costs. Apart from the lack of

structural explanation given for the factual persistence of inefficient institutions (should it be attributed to “external institutional” factors which interfere with free competition among “institutions” we would come back to the initial problem), the very notion of efficiency based on the view of institutions as maximising or optimising devices makes this approach unconvincing. Neither the origin of institutions, nor their stability seem, as we shall see later, to be linked to this notion.

A second approach relays on the notion of path dependency. “Lock in” and “path dependency” belong to the category of self reinforcing mechanisms which are typical of evolving complex systems. These mechanisms fit well with the evolutionary view of the economic process and are found in authors such as Arthur, Winter, Nelson. They can also be traced in Veblen, who “viewed institutional change as a continuing process. At any point in time the institutional structure is composed of habits of thought and behaviour that emerged from earlier adaptations to changes in the objective circumstances of the community. Institutions of the present period are, therefore, determined by past patterns of adaptation. Consequently, the institutional structure is always in a sense obsolete with respect to the current technological situation, and further adaptations is required. But the adaptation itself produces a new set of circumstances that requires further adaptation and so forth.” (Bush, 1994, pag.292).

A third approach (Schotter, Sugden) sees rules and institutions as equilibrium solutions to repeated games. According to this approach, institutions are not sets of predesigned rules, but rather unplanned and unintended regularities of social behaviour (social conventions) that emerge “organically” (to use Menger’s term). “Institutions are outcome of human action that no single individual intended to occur”, and “the important point

to realize is that rational social agents, through a process of individual utility maximisation, can evolve sets of rules by which to conduct their lives” (Schotter, 1987). A flavour of Veblen’s and evolutionary approach can be found in this view. But there are some significant differences. First, the aggregate outcome is still seen as the result of “a process of individual utility maximisation” (which implies perfect rationality and perfect information); second, the view of institutions as equilibrium solutions to repeated games faces the well known problem of the existence of different, and some Pareto inefficient, equilibria. But the crucial point is that this view doesn’t make it easy to explain change: preferences are taken as given and so is the connection between possible behaviours and pay-offs. If we allow for agents to have only a fuzzy knowledge of this connection we must resort to some memory and expectations derived from past experience, if we assume perfect knowledge of clear-cut connections, than we must consider them, in the same logic, as the result of previous games. In the first case we run into problems of cognitive nature, in the second we face what Hodgson calls “a problem of infinite regress”.

A fourth approach is that of “propagation process” (Witt, 1989), which is actually an extension and a generalisation of the game theory approach, with the addition of interdependence among the agents. Through an analysis of the different kinds of interdependence, the case is put forward in which the interests of individual agents do not allow for an unintended institution to be created or maintained; in this case some form of organised collective action becomes necessary.

The last approach that we take into consideration is the one of “institutional design”.

According to this approach, institutional change is the result of a kind of social engineering that plans, designs and imposes a set of rules (and therefore institutions) to a society of individual agents. The theoretical and implementation problems posed by this approach are enormous: they range from the choice of the appropriate institutional arrangements capable of getting the desired outcomes in terms of conduct of agents and economic performance (Hurvitz 1979, Schmiechler 1980), to the problems of actually replacing old institutions with new ones (Croskery 1995, De Bruijn 1995). Since “actual institutions” are not simply the set of designed rules but the result of the combination between these and social interaction among economic agents, it is true that this approach may boil down to “designing a game of “game form” for social agents to play”, where “the question is: what is the best game (or institution) to have people play so as to satisfy some exogenous given objective function?” (Schotter, 1994 *Ullman*). This shows some similarity with the second approach previously mentioned, but the similarity stops here, since the emergency of norms, or institutions, is stimulated anyway, according to this view, exactly by a “set of predesigned rules”.

As can be seen from this short exposition, all these approaches do not say much about the origin of the impulse that sets in motion the process of institutional change. Quite often reference is made to adaptation to “changing conditions”. It is certainly true that, as Nelson puts it, “customs, standards and routines almost all change over time as *conditions change and require some adaptation*” (Nelson, 1994, p.251) and that institutions can be considered as emerging from adaptation to “*objective circumstances*” (Veblen, in Bush 1994), but the relevant point is exactly to identify *what*

are these “objective circumstances” and *how* they operate in order to set in motion the process of change. This is the question that has to be examined if a full understanding of the dynamics of institutional change has to be reached and if guidelines are to be found for a policy directed to obtain changes in economic institutions.

The above approaches provide some possible interpretations of the mechanism through which the process of institutional change goes on once it has been started, but not of how it starts. Perhaps one can trace two elements which may be considered as triggers of the process of institutional change in the previous views. One is the change in relative prices, stressed by North; the other is technical progress, along the line opened by Veblen. But both of these are sharply exposed to crucial objections. Changes in relative prices need not be considered the triggering element if maximisation is not assumed as the foundation of agents’ behaviour (in addition, changes in relative prices might also be viewed as consequences of changes in preferences); technical progress is surely one of the most relevant triggering elements, but it needs qualifications: in particular, it cannot be considered as exogenously given.

Therefore, further investigation is needed on the topic.

2. REDEFINING INSTITUTIONS

The investigation requires a re-definition of economic institutions. The distinction between “set of rules that constrain individual behaviour” and “unintended regularities of social behaviour” has to be overcome. None of them can account for the empirical evidence that “similar rules can create different behaviour and outcomes” (Eggertsson, 1990) and that similar behaviours can come out of different rules (as many features of transition economies are able to show). A definition consistent with such empirical evidence may be one that refers to economic institutions as *actual (and*

relatively stable) patterns of behaviour of economic agents (considered as individual or as organisations) shaped by rules and provided with sanctions (Fadda, 2001).

The notion of rules, though, needs qualifications. In particular, we can ask ourselves what kind of rules are to be taken into account. The answer must be: all kind of rules, in so much as they are shared or, in any case, followed. Therefore, what lies behind institutions is a combination of different sources of “normative” powers. The distinction between formal and informal sources (the formal giving rise to “rules” and the second to “norms”) may be accepted only as a matter of convenience, meaning to separate those which originate from legal, administrative bodies and are therefore codified in bills, laws and official acts from those which do not.

The distinction made by Rawls (1955), according to which the violation of formal canons invites punishment while the violation of informal ones only invites disapproval, does not seem to hold if we think, for instance, of mafia or of some family systems in which punishment follows disapproval, or of some retaliation mechanism in oligopolistic game behaviour; and, besides, disapproval may be a form of punishment in itself.

Enforcement cannot either be considered a distinctive feature, mainly because so called informal institutions may have much more effective enforcement procedures than the formal ones. For example, enforcement of the formal norms in the field of tax evasion is much weaker and less effective than the enforcement of informal norms regulating racket payments.

When economic institutions are conceived as actual patterns of behaviour of economic agents shaped by rules (without distinction between formal and informal), they in fact are being conceived as set of routines. Routines are actually standardised sequences of acts that economic agents put into being

when faced with problems to which they must give an answer with their behaviour. Some of them have the force of an implicit contract, some are codified in contracts, some carry the force of law; most do not, but nevertheless, for several reasons, routines have stability, as Nelson and Winter have shown in their work (Nelson, 1982).

Considering the choices of economic agents as driven by routines (institutions) makes a radical difference with respect to considering institutions as merely constraints or boundaries to maximising rational behaviour. Several implications of this statement may be underlined.

In the first place, institutions, or routines, are actually substitutes for, and not constraints to, rational choice: they can provide “satisficing”, rather than “optimising” results (and as long as these are considered “satisficing”, those institutions which allow the results to be so remain stable.)

Secondly, transaction costs reduction (let alone minimisation) is not what institutions are for. Such a cost reduction may be a by-product of behavioural expectations created by routines, or institutions, but their “raison d’être” lies in their ability to obtain satisficing results with reference to a wide range of parameters (which can be power, prestige, wealth, and so on) even at the price of being inefficient as far as transaction costs are concerned. Because of the variety of parameters which individuals use in order to evaluate the “satisficing degree” of their routinised behaviour, institutions, routines, norms cannot be considered as pursuing (either by evolution or by design) a transaction cost minimisation objective.

In the third place, routines represent a saving device on learning, both of individual and organisations. Rather than going through the lengthy and complex process of acquiring and elaborating information in order to invent each time the appropriate strategic behaviour in face of the different contingencies, following the pattern of behaviour traced by routines allows the use of a tested shortcut to obtain a satisficing result.

Finally, routines may be considered as influenced in their formation (and also in their persistence? This is one of the problems we are going to deal with later) by values, in so much as these are relevant in the cognitive process out of which routines emerge.

In what has just been said there are two new concepts that come to the fore: cognitive processes and values. In these two concepts seems to lie the key for understanding how the process of institutional change is activated and how it proceeds, and we shall now deal with them at some length.

3. THE TRIGGER OF CHANGE

Once established, economic institutions (say, property right regimes, bankruptcy regulation, industrial districts network organisation, Japanese keiretsu, wage bargaining and whatever may be thought as shaping the patterns of economic interaction) model from the roots the behaviour of agents, structure their life and tend to persist. As long as they are “efficient”, in the sense, and only in the sense, that following their routines gives satisficing results, their permanence is self-sustained; when they start failing on this ground, they become candidate for substitution.

The factor which *calls for replacement of old institutions* is therefore the inability to solve the new problems of economic interaction through the existing institutional arrangements.

We know that this inability cannot be interpreted in the traditional sense of inefficiency “a la North”: the persistence of institutions which do not minimise on transaction costs cannot be explained with the existence of external “obstacles” to competitive selection (such as path dependency or the resistance of powerful interest groups), nor with the cost of replacement, precisely because these elements are not “external obstacles”, but rather constitutive elements of institutions themselves. Institutions are efficient as

long as they are capable of providing satisficing results in a variety of ends among which transaction cost minimisation can be but one of the lot. If other ends are satisfactorily reached, the institutional structure can persist stable in spite of being “inefficient” under the transaction cost criterion. Still more: it can persist at the price of being “inefficient” in that sense.

Since institutions define the shape of economic exchanges between agents, they inevitably regulate and define access to resources and eventually the dynamics of income distribution. Therefore efficiency and inefficiency, that is the ability of providing or not providing satisficing results, has inevitably to do with these issues.

Something on this line seems to be found in the following statement: “Institutions are prescribed or proscribed patterns of correlated behaviour and attitudes that coordinate life in community. When these prescriptive arrangements are perceived as failing to provide adequately for the flow and quality of real income, given the level of understanding evident, the community has a *problem*. Resolution of the problem consists of recasting that part of the institutional structure understood to be the source of the impairment”. (Tool, 1993, pag.122).

A more precise definition of the stimulus to change should include a definition of which subjects the judgement about the “satisfaction” of results has to come from. It could be the “majority” of the community, it could be the ruling class, it could be the groups that hold economic power. Everybody can see the implications (of practical, rather than theoretical nature) of different answers to this question. (Knight, Levi, Fadda). A second consideration is that, although “quality and flow of real income” could be more precisely defined as access to resources and income distribution, allowance has to be made for other parameters, such as power

(even market power for enterprises), prestige and so on to be taken into account.

The operation of this triggering factor which is able to set in motion the process of institutional change involves two separate issues: the first one is the perception of the *problem*, the second is the actual breaking of old routines and the creation of new appropriate institutions.

4. THE PERCEPTION OF NEW PROBLEMS

The first issue, the perception of the new problem, clearly belongs to the *cognitive process* area. In fact it can be split into three stages: a) gathering of information; b) processing; c) pattern recognition.

The gathering of information can be considered as the first stage. Although the definitions of "information" are very numerous and very differentiated according to the different research areas (Braman, 1989), in the economic field we can treat information as the collection of data which form the basis for decision making of economic agents. So, data are the constitutive elements of information. Nevertheless, not all data are relevant for every choice nor all relevant data for every choice are available. Beyond that, the acquisition of data is costly. The selection of data is therefore the first problem that individuals and organisations have to face. Sometimes it may happen to have a redundancy of irrelevant data and a shortage of relevant ones. This is not always only a technical problem of statistical treatment, but can also be a problem of spotting which are the phenomena to gather data about and a problem of envisaging appropriate indicators. As the cognitive science has found out, the perception of data itself is influenced by expectations derived from past experience and the present context (Normann, Rumelhart, 1975). This is true for individual economic agents and for organisations. Strong differences may therefore emerge among

agents about the ability to perceive data and to decide what are the relevant data, as long as their experiences and their pre-existing stocks of knowledge differ. This clearly creates differences in the extent and in the timing of the perception of the evolution of the “states of nature” from which the novelty of problems emerges and in respect to which patterns of behaviour have to be reshaped. A process of “cumulative causation” can take place, which seems to give advantage to groups or individuals or organisations which are better equipped with data-acquiring capabilities to start with. Here is where all the firms’ effort towards developing adequate forms of “knowledge management” comes from. (Bourdreau , Couillard 1999).

The second stage is that of processing the information. This processing is the cognitive operation which transforms the stock of information into knowledge, which is not the simple accumulation of data. Being this a cumulative process which takes place in historical time (quite differently from the instantaneous knowledge assumed for the auctioneer in the tatonnement process) it requires the use of some mechanism of encoding and stocking of information. Encoding is an operation which must accompany the perception of data in order for them to be stocked in memory and recalled and processed to produce knowledge. The encoding and stocking mechanisms are connected to mental models which are embodied in the cognitive structure of agents: it is therefore through them that information becomes knowledge. But these mental models are themselves somehow the product of the evolution of knowledge; so we can speak of an evolutionary and cumulative ability to process information, which is itself path dependent.

The perception of the novelty of the problem is not yet possible unless a third stage takes place. That is the stage of recognition, or “pattern recognition”, as Churchland puts it (Churchland, 1995). Recognition is that

operation which allows to establish the correspondence (or not) between the new knowledge extracted from the new information and the old knowledge that in cognitive terms is kept in memory and in economic terms can be considered as representing the old situation, or state of nature. If a correspondence exists, then the situation (and the problems of strategies and of choices that it contains) belongs to a class of situations and problems already known and can be coped with through the use of existing routines and standard responses. If a correspondence does not exist, then the situation and the problems belong to a class not previously known; therefore old routines are of no use to cope with the situation, and new solutions (new routines, new institutions) have to be “invented”. “In Marshall’s model, not only does the practical management of daily life remain the province of routine behaviour; the stimulus to imagination arises from *failures of routine*. It is when a *standard response no longer seems to work* (..)that a signal is sent to the part of the brain that is capable of imagining alternative ways of classifying situations and of assembling action sequences in response”. (Loasby, 1999, pag.37)

The elements of the novelty which makes existing routines inappropriate may come out of three main facts. The first one is *technical change*. No doubt the diffusion of steam engines, the evolution in transport technologies, the progress in information and communication technologies provide the case for inability of old routines to get satisficing results; but it has to be noted that historically the evolution of technologies has been strongly influenced by the interest of dominant groups, rather than being an autonomous self-sustained process.

The second fact is a *change of the class or groups in power*, that is a change in the balance of power, or a change in coalitions, be they brought about by democratic processes or by violent events like revolutions or coups.

The third fact is the *change in interests* (let us not introduce preferences for the moment) that may occur within the same existing dominant groups. All of these cases provide a change in some or all of the three stages that make up the perception of situations and, by generating a new framing of the problems of economic behaviour, call for new patterns, or routines, or institutions.

This urge for new institutions may be felt and implemented by different economic agents (such as social and political actors, entrepreneurs and any kind of people). The importance of this distinction and its implications for the speed and the pattern of change are mostly revealed when the actual business of setting up new routines comes to the fore.

5. THE CREATION OF NEW ROUTINES

The second issue, that is the actual breaking of old routines and the setting up of new institutions, belongs to the *problem solving* area. It implies the creation of new sequences of actions, which can be memorised and become new routines, new rules of behaviour for individuals and organisations.

This process of creation can either emerge pragmatically as unintended result of self interested interactions, or be the planned result of intended actions. The former has to do with the informal dimension of institutions, the latter with the formal one, although this distinction is subject to those qualifications which have been mentioned above in this regard. We shall see later how these dimensions may interact and how the different roles of different actors can be combined. In any case, this process implies an inventive capacity that from a cognitive point of view corresponds to a “creative” activity.

In fact we can speak of creativity when unusual solutions to problems are found. If the problems are “new” the solutions cannot be but new. The pioneering work of Simon and Newell (Newell, Simon, 1972) laid down the idea of the “space” of the problem and the idea of a process of progressive and sequential sub-targets that the operator obtains in order to progressively reduce the gap between the initial status and the status which has been assumed as final target. According to more recent approaches (Holland, 1986) the process implies a selection of programs of Darwinian type which, through a kind of evolutionary acceptance of programs which show more fitness and abandon of programs which are less fit, ensures the survival of the best programs, or solutions.

The creation of new routines with this inventive activity of problem solving goes on through a combination of the following three passages. The *subtraction* of old elements (some particular institutional arrangements are dropped), the *addition* of new elements (new arrangements are inserted in the old institutional structure), the *permutation* (the nexus, or the sequence, or the relationship between the elements of the institutional structure are changed) . These passages take place in course of time, through a complex interaction between agents who slowly modify their behavioural patterns, and, as it has been said, in a variety of interactions between formal and informal forces.

As we have seen, once routines are established, it is such routinised rules, more than “preferences”, that shape the decisions of the “behavioural man” (Vanberg, 1994).

We must ask now whether the process of creation of new routines can possibly be led by a maximising criterion; in this case routines could be seen as standardised patterns that just save the agents the effort and the trouble of individually calculating rational choices, a kind of shortcut to the

same optimum results which would have been obtained by individual maximising behaviour.

We have already seen above that institutions need not to be seen as maximising devices, and now we can go on by saying that even the process of creating new routines needs not be viewed as an expression of maximising behaviour. While going through the passages mentioned above agents look for satisficing results and proceed in a way which is by now currently called “evolutionary”, and this is inconsistent with a maximising behaviour. In addition, the cognitive nature of problem solving shows (as we have seen) that “knowledge” is required to create new solutions, and the process of knowledge accumulation has as constitutive elements both past experience and mental models, or mental schemes. Mental schemes were first analysed by Bartlett (Bartlett 1932, 1958), who noticed how individual *attitudes* toward a story influence the way it is recalled, and how the schemes created by some regularities of our past experience enable us to better choose the behaviour in front of new situations: somehow similarly to what happens when deciding the strikes in the always new contingencies created by a game of tennis. Therefore, mental schemes and attitudes are leading forces in creating new sets of routines, and these at the end, rather than utility maximisation, determine the shape of agents’ behaviour.

If we suppose that values are connected with these mental schemes, then values are brought into play as forces capable of influencing and orienting the process of formation of behavioural norms.

A special consideration must be made about the hypothesis of “inventing” new formal institutions by design. Assuming no influences coming from pressure groups, power relationships, social conflicts and so on, it could seem possible to think of institutional design as something able to make use of substantive rather than procedural rationality and to follow optimising criteria and transaction cost minimisation. In fact, the existence

of cognitive limits rules out this possibility altogether, quite apart from the possible divergence between “designed” institutions and “actual” institutions, and institutional design remains therefore under the rule of incomplete information and bounded rationality.

6. THE ROLE OF VALUES

Values enter the scene of institutional change if a connection can be established between values and the creation of new routines. Such a connection can be shown in the following chain: values are behind attitudes, attitudes are behind routines, and routines shape the behaviour of agents.

Values are behind attitudes in the sense that they are the cultural basis on which attitudes are founded. Values are standards of judgement, or, as Sen puts it, preferences, tastes, of “higher order”. They can also be considered as structured sets of conceptions which are transmitted historically and through which men communicate and develop their knowledge. Being so, values do not directly determine behaviour. They function as guidelines for the formation of attitudes, which in turn influence the accumulation of knowledge by inspiring the encoding and the memorisation of information. Finally, knowledge is the basis on which routines are created and behaviour is shaped.

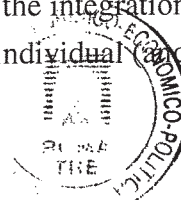
If we define attitudes as the disposition to respond to some class of stimuli with some class of answers (Rosenberg and Hovland, 1960) we can consider them as projections of values. Attitudes, which are made of cognitive, affective and behavioural components, can either correspond to existing routines or give rise to new routines through problem solving activity; therefore they are decisive as far as persistence and change of institutions are concerned. Values are the force which shapes attitudes, the core from which attitudes derive. And since the creation of new rules is mediated by attitudes, which exactly permit the passage from information to knowledge

an then to new behavioural choices, values end up being the final determinant of the result of problem solving activity and so of new institutions.

The temptation at this point could arise to treat values as preferences, and therefore to apply to a set of values the same role of a set of preferences, which through indifference curves allows the individuals to make rational optimising choices. But it need not be so. In the neoclassical paradigm preferences are considered as given, and this may make them look similar to values and generate some confusion. But it must be observed that it's not possible to consider values as arguments of an objective function as it is for preferences, because values and preferences belong to different planes. Values are on a higher plane. In fact, the behavioural rule of utility maximisation through a utility function itself should be considered as belonging to the plane of values, and therefore values cannot be the arguments of a utility function.

Besides, and more fundamentally, preferences cannot be considered exogeneously given in the economic system. It would be impossible for the individual to have a given knowledge of the sets of preferences relative to every possible single binary set of goods, nor for the entrepreneur to know all the details of its production function. As a matter of fact the information is not only limited, but also, not surprisingly, derived from experience and in this case "preferences, rather than determining choice, may be a product of the process of choice" (Loasby, 1999; see also Mistri 2000). Values, on the contrary, through the chain of relationships from values to behaviour, influence decisions and choices.

An important link of the chain that has been illustrated here is the relationship between attitudes and patterns of behaviour. It is the integration between attitudes and knowledge that determines the kind of individual and



collective) behaviour. There are several cases, for instance, in the organisation of industrial districts, in which this link becomes manifest. Actually, as it has been suggested, industrial districts could be defined as “knowledge communities” (Loasby, 1998), or “localised systems of institutions” (Fadda, 2001). The chain “values - attitudes- knowledge – patterns of behaviour” shows different contents in different local productive systems. No doubt, a change in the first term would start a sequence of changes up to the behavioural patterns of local entrepreneurs. It’s enough to think of what values the notion of reputation can be attached to in order to have an idea of the different patterns of behaviour which would follow. Or just think of the difference that different values would make in the “problem solving” process which takes place in the creation of new routines in local labour markets in front of the novelty of immigration or of technical progress. In another case, on a larger scale, different values are at the root of different behavioural patterns in front of the novelty of genetically modified food.

Everybody can see the relevance of this point for less developed economies; development thinking itself is fundamentally influenced by values (Myrdal, 1968, Sen 2001).

This link has been extensively examined from a cognitive perspective, and although some occasional divergences have been found between attitudes and behaviour, the theory of “planned behaviour” (Ajzen, 1988) seems to support a strong correlation. Interesting considerations can be made with regard to change in attitudes, but they are better treated in connection with the process of change in values.

7. FINAL REMARKS

Once the chain “values - attitudes - knowledge - patterns of behaviour” has produced its effects under the stimulus of new contingencies (coming from some of the reasons mentioned above), old institutions (or elements of them) are replaced by new ones. That is because, to use Sugden terminology, “conventions and norms evolve together, with the result that people come to believe that they ought to act according to those conventions that have become established” (Sugden, 1999). Sugden arrives at this conclusion assuming that the emergence of norms is explained by evolutionary game theory and that much in the same way the evolution of norms has to be explained. But we can maintain that new patterns of behaviour become routines, and therefore new institutions, even if the creation of norms follows a path which is not a game theoretic one.

Since in the process of establishing new “prescribed patterns of behaviour” (that is how new institutions come into being), as we have already said, formal and informal forces come into play, an interaction between the two arises, which is open to evolution towards different final results. In fact, the variety of processes may take the following shapes:

- Formal and informal norms and institutions perfectly coincide. In this case no conflict arises: the actual patterns of behaviour, that is the actual set of interactions between agents, are regulated by the formal systems of rules, and they evolve simultaneously.
- Formal norms prevail over informal ones. In this case there exists a divergence between the two, but in the process of time either the informal norms undergo a change and adapt themselves to the formal ones, or they become illegal and are successfully repressed.

- Informal norms prevail over the formal ones. In this case the existing divergence evolve in the sense that patterns of behaviour are actually shaped by informal norms. In the process of time either the formal ones adapt themselves to the informal ones or they simply coexist, with the formal rules remaining unapplied: their enforcement might be in these cases either too costly or simply impossible;
- finally, informal norms may simply parallel the formal ones, filling spaces that are free and actually shaping patterns of behaviour that are not touched by formal forces.

In this process of evolution of institutions, institutional design for innovation may be activated. But the actual institutional structure does not necessarily correspond perfectly to the one which has been designed. Frey provides some examples of such divergence (Frey, 1999); they are: tax evasion and the “Not In My BackYard” Syndrome. In both cases actual patterns of behaviour may differ from patterns settled by formal institutions.

The difference between institutional design and actual new institutions recalls the philosophical distinction between “knowing what” and “knowing how” and the cognitive distinction between “declarative knowledge” and “procedural knowledge”. There is a link between the two forms of knowledge, but the first is theoretical, flexible and easy modifiable; the second is operational, not flexible because strictly tied to specific situations and slowly modifiable because grounded in a sort of automatic or routinised activity. These aspects are at the basis of the complex and difficult relation between institutional design and institutional change.

The coherence of the sequence “values – attitudes – knowledge – routines - behaviour” may be occasionally broken and a dissonance can arise between values and behaviour. The break is likely to occur when values and attitudes

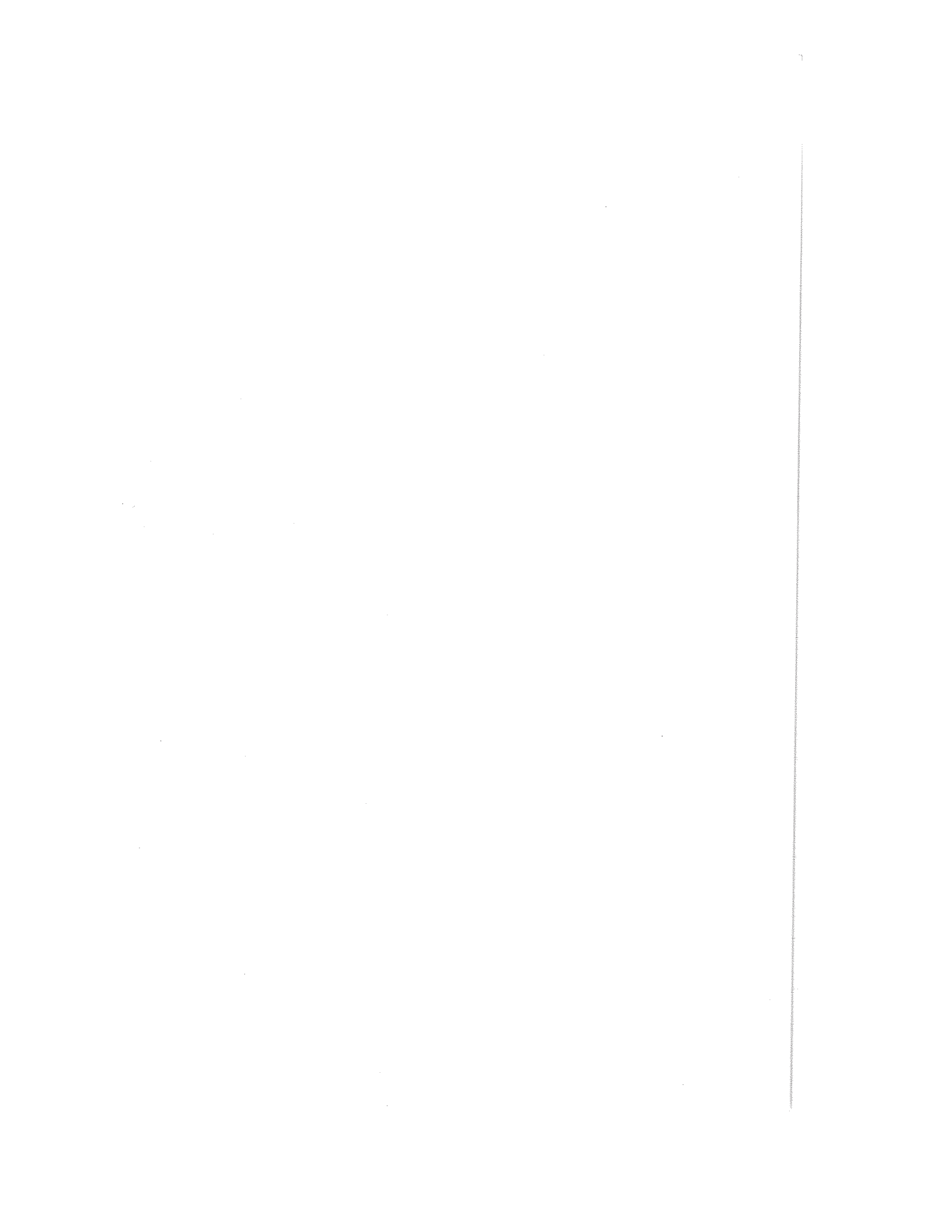
(which are in more strict relations with behaviour) diverge. Attitudes are subject to change mainly under the pressure of the direct experience of the object of the attitude, under the strength of persuading communication, and as a consequence of forced behaviour (for instance, as a result of the operation of economic incentives). If such a dissonance appears, individuals tend to remove it, either by restoring the original attitudes or by changing values. How this dissonance may happen and how it can be solved are still problems to be further investigated.

In conclusion, a change in values is a sufficient condition for the change in institutions provide it affects the social and economic forces which, given the balance of power, are capable of implementing it. In any case a change in value is a strong incentive toward institutional change, but it is not, by any means, a necessary condition. Institutions may change through the process that has being described above, even if values remain unchanged, when new situations appear which make existing institutions ineffective. Unchanged values remain in this case the paradigm of reference for the complex process of problem solving which leads to replacement of old routines. The old distinction between instrumental and ceremonial values (Tool, 1993) loses importance in this framework, because it relates to the substantive content of values and not to their procedural role.

A final question must be raised at this point: whose values are relevant for the process of institutional change? When in a society there are different groups with different cultures and values, the question is important because values have to be given different weighs according to the weigh (the power) of the group they belong to. The answer is obvious: the relevant values are those of the group in power. But that means that a change in the balance of power between the groups of society may lead to change in institutions not only because of the change in the economic interests to be protected, but

also because of the change in the socially relevant values associated to the change of the group in power.

At this point the question of where values come from and how they change (whether endogenously or exogenously) opens up, but we shall leave it to another paper.



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