BARGAINING AS AN INSTITUTION: A THEORETICAL INVESTIGATION

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Abstract. The paper examines analytically the price mechanism of bargaining in the form it assumes in a number of poor countries where rich tourists spend their holidays. As a first step, the institutional feature of bargaining are considered and their economic consequences are pointed out. Successively, the paper investigates the ability of different schools of thought to take account of the phenomenon. Neoclassical, Austrian and Institutional streams are considered. Neoclassical formalism is seen as the major impediment to the analysis of the institutional aspects of bargaining. As far as the Austrian method is concerned, the typical issue is to provide an invisible hand explanation of bargaining. The paper suggests that such an explanation, though capable to grasp some of the institutional aspects of bargaining, is incomplete. The Institutional framework, in which individual preferences mould and are moulded by the institutions in a cumulative process is thus adopted. Such a framework allows to point out the asymmetrical economic power involved in bargaining transactions and to evaluate the efficiency of the institution out of the Pareto criterion.

Résumé. L'article examine les aspects analytiques du marchandage, tel qu'il se présente dans certains pays pauvres caractérisés par la présence d'un riche tourisme. Dans un premier temps, les aspects institutionnels du marchandage sont considérées et leurs conséquences économiques sont soulignées. L'article se concentre ensuite sur la capacité de différentes écoles à prendre en compte le phénomène. Trois courants sont examinés: néoclassique, autrichien et institutionnaliste. Le formalisme néoclassique est présenté comme l'obstacle majeur à l'analyse des aspects institutionnels du marchandage. L'approche autrichienne envisage quant à elle la question à travers une explication de type main invisible. L'article suggère qu'une telle explication, bien que permettant de cerner quelques uns des aspects institutionnel du marchandage, se révèle incomplète. Le schéma institutionnaliste, au sein duquel les préférences individuelles modèlent et sont modelées par les institutions à travers un processus cumulatif est, en fin de compte, adopté. Cette approche permet de souligner le phénomène de pouvoir économique asymétrique qui entre en jeu lors des transactions de marchandage et d'évaluer l'efficience de cette institution hors du critère de Pareto.

Mots clés: bargaining, institution, invisible hand explanation, efficiency and suitability. *Catégories du J.E.L.*: B15, B19.

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In this paper we examine the price mechanism of bargaining considered as an institution. For institution we mean a socially accepted set of formal and informal rules that provides a framework in which a determined group of people interacts.¹

Institutions, people and material conditions evolve together and influence each other. Individuals are both products and producers of social and cultural processes. Also the system of values, the set of social norms and cultural habits are part of these processes of cumulative causation.

The method of determination of prices is largely conventional. On the one hand, the use of a particular method is (to some extent) the result of an intentional research of individuals; on the other hand, it represents a set of behavioural rules that affects everyday human actions. The evolution of a price mechanism is thus both a result and a cause of the evolution of particular forms of individuals' interactions.

The institution of bargaining in a number of developing countries may be seen as a response to a specific contingent factor, the presence of a rich tourism. In this paper we will show that bargaining is an institutional solution that allows to take advantage of such a situation.

Notice that the institution we are dealing with is not bargaining in itself, but a particular form of it, namely the one concerning *indigenous sellers* and *tourist buyers*.

Our work is divided into four sections. In the first one the bargaining institution is analysed and is contrasted with the typical capitalistic alternative, the *seller unique price making* criterion.

As a preliminary step we use the method of comparative statics. Its limits are well known [cf. Hicks, 1965]: dynamic processes cannot be treated, so that the analysis of the historical emergence of bargaining as a specific institution falls beyond our scope. However, the very diffusion of bargaining in many different contexts suggests that a common motivation exists. The comparative static analysis allows to point out a number of aspects of the bargaining institution which makes it suitable for determined contexts. Moreover it raises the question of what should be meant by "efficient institutional solution".

In sections two, three and four we discuss the ability of the Neoclassical, the Austrian and the Institutionalist approaches to take into account the phenomenon of bargaining for its institutional aspects. Here the analysis is more directly dynamic: not only the efficiency of bargaining is considered, but also the historical evolution of price mechanisms and its determinants are explored.

In section two, we stress the consequences of the adoption of formalism for the analysis of institutional phenomena; in this connection we contrast the position of Menger with that of the Neoclassical stream.²

In section three, we examine the revival of Mengerian thought in the Neo-Austrian tradition.³ In this framework institutions are given *invisible hand explanations* and are defined exclusively as spontaneous phenomena.

Finally, in section four, we reconsider the bargaining process in an Institutionalist framework, stressing the importance of the concept of economic power and the relevance of institutions for the formation of individual preferences.

SECTION 1. The *efficiency* of the bargaining institution

In order to analyse the relative efficiency of bargaining with respect to other price mechanisms, a precise definition of efficiency is necessary. In accordance with our particular conception of institution we define efficiency with specific reference to those who *stably* act in the context where the institution holds.⁴ In the case of bargaining, the point of view of indigenous sellers is thus taken. Hence, the efficient price mechanism is the one which maximises the total profits of indigenous sellers.

In the bargaining process, the final price that is reached (if one is reached) is generally not determinable *a priori*, depending on subjective and tacit features of the two parties and on their strategic abilities. Nevertheless, the set of possible outcomes of the bargaining process can be restricted by examining the whole procedure and its institutional features.⁵

From a pure theoretical point of view, the lowest price that could be established is the competitive one, equal to the purchasing price of the indigenous sellers (plus a minimum *conventional* rate of profit). However, even though there are generally many sellers, the market works in fact as a monopolistic one. There is indeed a sort of tacit cartel among sellers which leads to the establishment of a virtual monopolistic market: sellers fix a bottom limit price which they undertake explicitly or implicitly to respect and which they violate only in exceptional circumstances. This suggests that the price will not fall under the optimal cartel price fixed on monopolistic profit maximisation basis.

The economic relevance of bargaining is thus composed of two elements: the former, the cartel among sellers, leads to the establishment of a bottom limit price higher than the competitive one; the latter, discrimination among tourists according to their willingness to pay, allows single sellers to extract all the consumer's surplus of each tourist (figure 1).

In fact, there is not just one bottom limit price, but many. Indeed what happens is a stratification of tourists according to some proxies of their presumed willingness to pay, basically the richness of the country of origin and the social class. In the end thus, somatic characters, clothes, language and accent are the typical elements according to which sellers fix different bottom limit prices.

Such a discriminatory mechanism can survive thanks to three factors: the asymmetric information between sellers and buyers (only the seller knows the limit price); the limited communication between tourists of different groups (because of the non-homogeneity of tourist population) and the occasional and non-stable participation of tourists to market processes (which, being learning processes highly time-consuming and holiday period limited, gets, at any time, the great majority of tourist population not expert).

Figure 2 shows the effect of two different limit prices: it can be observed that if the final prices coincided with the limit ones this situation would be analogous to a discriminatory monopoly. Note anyway that the analogy is only formal, bottom limit prices being reached only occasionally.

Figure 3 considers the limit case in which the lowest limit price coincides with the competition one. A graphic analysis may suggest that the same result could be obtained by simply imposing only the competition limit price. However, by imposing just one limit price, asymmetric information between buyers of different groups would tend to disappear, what would hinder the process of discovering the willingness to pay of the buyers from sellers, with the risk of compromising the whole device for the appropriation of consumers' surplus (in that case, the area showed in figure 3 would represent the total consumers' surplus instead of sellers' surplus).

If the bottom limit price is an important indication for both the seller and the buyer, also important for the buyer is the top limit price which is differentiated, as well as the bottom one, among groups of tourists. If the seller calls an exaggerated price (because he wrongly understands the willingness to pay of the potential buyer) what generally happens is that bargaining does not begin. It is indeed to avoid such a problem that sellers insist to make the buyer say the first price.⁷

The institution of bargaining involves a number of collateral conventions. For instance it is universally accepted that once the agreement on the price is reached, the exchange must take place. Sometimes also traditions are involved: a typical example is the habit that for determined kinds of affairs the seller offers drinks or food to the buyer (independently from the result of the transaction) and try to create a friendly atmosphere. Another important element is the time-consuming feature of the entire procedure. Even though both the parties know that the aim of bargaining is the exchange, the importance of personal relations prevents both the parties from a rude trading between persons with opposite objectives (the price); the creation of a friendly situation (sometimes artificial, sometimes not) is a general rule of the bargaining institution. Its violation can be interpreted as an offence, its consequence is the creation of a relation between persons and not only between things and persons. Culture and habits are the foundations of such a personal relation; its economic result is the exploitation of the subjective willingness to pay of the buyer by the seller.

Abstracting from cultural traditions and social aspects, the time-consuming feature and sometimes the tiringness of bargaining can be seen as real transaction costs. Such costs are not monetary ones but, nonetheless, can be subjectively high and may have a decisive influence on the outcome of the whole process.

Contrary to the fix price mechanism, in the bargaining process demand is not limited by a rigid price; it is the quantity (and a large number of other elements) which determines the price, not vice versa. The fact that the price is the highest the buyer is willing to pay, in presence of no quantity rationing, ensures that sellers maximise their aggregate profits. The entire bargaining procedure can thus be seen as a device to let the seller discriminate buyers in order to appropriate all the consumers' surplus that buyers could enjoy if a fix price mechanism were established.

Through the institution of bargaining the objectivity of the supply side fades into the background, whereas the subjectivity of the demand side is stressed and exploited.

SECTION 2. From Menger to Neoclassical formalism

In his 1871 book, *Grundsätze der Volkswirtschaftslehre*, Menger's aim is to give economics rigorous scientific basis. He applies systematically and very rigorously a causal approach to the explanation of economic phenomena. More precisely, the analysis of all complex phenomena must proceed from causal decomposition into their simplest and essential elements.

His treatment of the price mechanism is a strict application of this methodology: Menger [1871, Ch. 5] analyses the causal chain of explanation describing the process of exchange, starting from the "economizing action" of individuals engaged in bargaining and leading to the formation of the effective price. He studies the *essence* of the complex phenomenon of price formation rather than its level. Prices are only the apparent *symptom* of exchange. Economic theory is not able, according to Menger, to define relative prices *a priori*; it can only set the limits of an interval in which the actual price will be fixed.

"There is a certain range of indeterminacy within which price formation can take place without the exchange losing its economic character, and the extent of this range depends upon the nature of the particular exchange situation" [Menger, 1871, p. 199].

The way Menger analyses the price determination mechanism allows to take into account the very concept of institution. His theory of prices is not closed. On the contrary, contingent factors are relevant: each exchange process is specific to the nature of agents involved and price depends on the evolution of the bargaining process.

The two extremes of the price interval correspond to the different subjective evaluation of the good by the agents: the top limit of the interval represents the maximum price that the buyer is willing to accept and the bottom limit is the minimum price under which the seller refuses to deal. This last magnitude corresponds to the *bottom limit price* of the indigenous seller in our case of tourist bargaining. The seller conceives this price by evaluating the kind of customer she is contracting with. Thus, in the case of bargaining, subjectivity covers a two-fold dimension since the participants evaluate not only the capacity of the good to fill their wants but also the nature of their opponent.

Whereas bargaining can be analysed within the Mengerian framework, it totally disappears from the Neoclassical scheme as a result of the attempt to introduce more generality by means of formalism [Cf. Bergner, 1981].

Menger's rejection of mathematical formalisation can be grasped via his curious relationship with Böhm-Bawerk.

Böhm-Bawerk is described along with Wieser, as the direct and most faithful follower of Menger [Streissler and Weber, 1973]. However, the author of the *Grundsätze* asserted that "time will come when it will be recognised that Böhm-Bawerk's theory is one of the greatest errors ever committed" [Schumpeter, 1954, p. 847, n. 8].

According to Lachmann [1970], Böhm-Bawerk's "greatest error" lies precisely on his deviation from the Mengerian subjectivism towards formalism [Cf. also Endres, 1987]. Böhm-Bawerk's point of departure is undoubtedly Menger: economic theory can only define an interval of prices and the actual price is established according to the bargaining abilities of the participants. But, in his desire of generalisation, the author is led to introduce more and more restrictive assumptions, a determinant one being the infinite divisibility of goods. The result of this process is the switch from discrete to continuous variables, so that the interval of price is narrowed down to an equilibrium point [Böhm-Bawerk, 1889, p. 231]. The market is perfectly

described in terms of supply and demand curves, and the legitimacy of differential algebraic tools within the realm of economics is explicitly claimed: "Thus, when buyers and sellers make continuously changing valuations - upward or downward, as the case may be- and these evaluations represent offers to buy or sell partial quantities of a market good, there is a special predilection for depicting them by means of continuously ascending or decreasing curves and for indicating, by their points of intersection, the price situation which the competitive offers based on those valuations are in the process of developing. Now that is a perfectly unobjectionable procedure" [Böhm-Bawerk, 1889, p. 233].

The passage to formalisation in terms of continuous relations brings into action only physical magnitudes, of an objective nature: prices and quantities; the system is closed around the central notion of equilibrium price, leaving no room for the intervention of external factors of a subjective nature: the concept of price mechanism as an institution vanishes.

The deviation introduced by Böhm-Bawerk in the Mengerian framework is typical of what will occur in the interwar period: the Neoclassical approach will emerge as a pure formalist paradigm [Caldwell, 1982].

When using the term formalism, we refer to the axiomatic method: all the propositions and theorems are logically and exclusively derived from a number of postulates -the *axioms*-not to be questioned. The main feature of this method stands in the strict separation between syntax and semantic: the elaboration of theoretical propositions consists first, of symbols manipulations free of any interpretation, the economic meaning being stuck only in a second stage. This approach is explicitly advocated by Debreu [1959: Introduction].

As the mathematician Karl Menger [1973] -his son- points out, Menger refuses axiomatisation more than mathematics. By contrast with the later developments of Neoclassical economics, he refuses to analyse economic phenomena via the use of closed systems [Cf. Alter, 1986]. From this point of view, the adoption of continuous functions of supply and demand and the focus on equilibrium, both of them leading to the determination of a unique price, cannot be considered as a mere generalisation of the Mengerian analysis of the price mechanism. A qualitative shift has taken place. Neoclassical analysis is concerned with a different scope; it is a pure abstraction, built independently from space-time considerations, in which contingent factors and the nature of agents involved have no role. In order to found the internal self-consistency of the model, the focus is on the existence demonstration of an equilibrium. The a-historicity of such an approach has radical implications: institutions are no longer relevant in this framework, the bargaining process looses its essence.

SECTION 3. The Austrian invisible hand explanation

Austrians define the market as a social order. An order is the result of the interaction of a multiplicity of elements governed by general rules that are specific to their environment. In the realm of social phenomena, these elements are in fact individuals, and the associated rules consist of agents' behavioural regularities. The Austrian notion of order is strictly linked with one of their methodological tenets, namely methodological individualism.

Two kinds of social order are distinguished, in the words of Hayek [1973, Ch. 10], organization and spontaneous order. The former can be conceived as the intended outcome of human planned activities; it is a simple order, willingly created by the individuals towards a

specific objective. The latter is more complex and refers to the unexpected consequences of individual human actions. The notion of spontaneous order had been already developed by Scottish Enlightenment philosophers, like Ferguson who defines it as "[...] the results of human action, but not the execution of any human design". This definition is very close to the one given by Hayek [1967, p. 96] two centuries later: "[...] the results of human action but not of human design".

The phenomenon of market is, according to Austrians, an instance of social spontaneous order. Institutions and cultural rules represent the constraining environment from which order emerges. As Vanberg [1986, p. 76-77] points out, "it is the character of these rules that is crucial for the character of the overall order or pattern that will emerge out of the interaction of the elements". An appropriate institutional environment gives rise to an efficient spontaneous order [Prisching, 1982]. Thus, the question is to know whether institutions are the result of deliberate design, i.e. of a political process, or of an evolution process, unplanned by any human will.

The position of Austrians is straightforward: according to Hayek [1973, p. 9], "[institutions are] largely due to a process described at first as "growth" and latter as "evolution"", so that he can talk about "[...] the twin ideas of evolution and spontaneous order" [Hayek, 1967, p. 77].

It is essential for Austrians to conceive the emergence and evolution of institutions as spontaneous phenomena, based exclusively upon the interaction of non-co-ordinated and dispersed human actions (*invisible hand explanations*) [Cf. Ullmann-Margarlit E. 1978]. In this way, they justify their sweeping objections against interventionism, since it appears difficult to act efficiently upon the structures of a phenomenon resulting from an unconscious and complex process of evolution.

As Koppl [1994, p. 194] points out, an invisible hand explanation must proceed according to the following three steps. First, a description of the social phenomenon must be given. Second, the process through which agents' behaviours (oriented towards individual ends) lead to the emergence of social regularities must be detailed. Third, this process must be proved to be independent from any human design.

Let us consider more in details these three points with special reference to the bargaining institution: the first one has been investigated in section one; as far as the second point is concerned, the starting condition is the identification of unexploited opportunities of profit stemming from the presence of a rich tourism; facing this situation, some agents change their behaviours instituting a device for the discovery of the specific willingness to pay of each tourist, which gives rise, through a harmonising process of arbitrage and imitation, to a new institutional framework, consisting of a bargaining procedure based on a tacit agreement among sellers.

The third point is rather controversial. Austrians insist that the final state of affairs has to be conceived as the result of a pure process of evolution free of any human design.

In the Austrian approach the analysis of the consequences of individual actions is sometimes carried out in the framework of game theory. ¹² Schotter [1986], for instance, through a model of repeated games, analyses how a group of rational agents, facing the same types of problems, would select and adhere to a determined set of rules. ¹³

More generally, two canonical models of repeated games are used to analyse the emergence of social norms:

- -1- Co-ordination games in which there is no conflict between agents, the only problem being to find out a co-ordinated strategy for the realisation of the common objective.¹⁴
- -2- Prisoners' dilemma games in which agents are in conflict and the incentives structure does not lead to a social optimum.

In the case of bargaining, a seller faces two alternatives: to stop dealing when reaching the bottom limit price, or to cheat, attracting more customers by selling the good at a lower price. This is a typical prisoners' dilemma situation: taken individually, each agent has an incentive to propose a lower price than the bottom limit one; there is then an incentive to *free-ride*, i.e. to carry out lower prices whereas all other sellers reckon on the common limit price. On the contrary, the Pareto efficient solution of the game results from the adoption by all sellers of the same limit price. Indeed, agreement among sellers allows them to extract the maximum of the total consumers' surplus.

The question is: can such a situation emerge spontaneously without any human design? As Vanberg [1986] stresses, additional incentives have to play in such a framework, for institutions to be explained spontaneously. More precisely, he refers to the mechanism of *reciprocity*: "[a] reciprocal reinforcement by mutually exchanging rewards and punishments in social interaction" [p. 95] which prompts individuals "to take into account the future consequences of their present choices. Immediate gains from non-co-operation may well be overcompensated by the future losses from unfavourable responses one elicits" [p. 96]. The reciprocity mechanism is then a satisfactory explanation in situations where it is difficult for individuals to cheat and to remain anonymous at the same time, and where the game has not a predefined end, so that a present strategy of non-co-operating is fraught with consequences.¹⁵

From a theoretical point of view, nothing more can be added to justify the relevance of the reciprocity mechanism.

As far as empirical evidence is concerned, these conditions are fulfilled only partly. Note also that this set of conditions is necessary but not sufficient to prove the spontaneous order explanation, the hypothesis of planned agreement not being excludable. Our impression is that the agreement, particularly the one concerning the cartel, is not completely tacit, even though some reserves and a number of distinction according to particular contexts are necessary. Thus, we basically espouse the general sense of the Austrian explanation, but we also suggest that the mechanism through which the agreement among sellers is reached, should be investigated more in details.

Austrian refusal of any profitable human intervention at an institutional level seems to us to lay on a rather rigid position whose origins stem from the radicalisation of methodological individualism. Indeed, at this stage of the analysis, we think that the door should be left open, being the Austrian argument not sufficient to rigorously prove a pure invisible hand mechanism.

SECTION 4. An Institutionalist explanation

In order to understand the mechanism of bargaining in an Institutionalist perspective, the concept of economic power is fundamental.¹⁶ Its analysis allows to understand how voluntary agreement between the parties is not necessarily a neutral concept from the economic point of

view. Indeed the fact that different price mechanisms, each based on voluntary agreement, lead to substantially different outcomes cannot be explained if not referring to the concept of power within an institutional framework. The main figure in such an analysis is Commons, who adopts the concept of *transaction* as the fundamental unit of economic analysis [Commons, 1924 and 1934].

According to Commons, nineteenth-century economists, by concentrating on exchange rather than transaction, had failed to distinguish between the legal transfer of the rights to a good and its physical transfer. On the contrary, he points out that the transfer of property rights is the essential feature of transactions [Commons 1934 and 1950].

He considers three types of transactions, bargaining, managerial and rationing. In his analysis he stresses that the category of bargaining transaction is the only one between legal equals; nonetheless voluntary agreement between legal equals does not necessarily mean equality in economic bargaining power [Commons, 1934]. Economic power, in turns, can reveal itself in a number of way depending on the institutional framework.

In the particular case we are considering, we suggest that it is the complex of formal and informal rules involved in the bargaining process that allows indigenous sellers to exercise their economic power.

The importance of economic power and subjective elements in bargaining gives the concepts of equilibrium and efficiency special meanings. It is true that efficiency is related to profit maximisation (which is an objective factor), but this concept is not anymore an absolute one, for it is impossible to ascertain if a price is the maximum that a seller could obtain, the tourist willingness to pay being unobservable. Moreover even if the final price of bargaining can be seen as an equilibrium price (in the general sense that it is agreed by the parties), its meaning is distinct from the standard concept of equilibrium.

Neoclassical approach is strongly attached to the concept of equilibrium: time, uncertainty and information are integrated in the basic model in such a way to suit to the equilibrium framework. Information in particular, is treated as a commodity and the higher (equilibrium) price of the bargaining mechanism is explained by the cost of searching the lowest price, namely by the equilibrium price of information [Stigler, 1961].

However, like Hodgson [1988, p. 202] points out, if one lacks a piece of relevant information, then she cannot have any likely expectation on her future returns, which makes the rational calculation impossible. But, an even more important objection, we think, derives from the dependence of the bargaining price on the entire process and not only on the starting conditions. It is only through the analysis of the process and the conventions and habits involved that some conjectures on the range of the final price can be done.

The concept of efficiency of an institution and, in particular, of the bargaining one, is thus far from the Neoclassical acceptance: it has nothing to do with the typical exercise of comparing equilibrium situations in which agents maximise subject to constraints, simply because constraints are not known and not knowable. The *efficiency* of bargaining in an Institutionalist perspective, is a soft concept, related to its *suitability* as a satisfying solution to be maintained until a new possibility arises, or the environment changes.

In the New and Old Institutionalist literature transaction costs are a fundamental element of analysis of the evolution of institutions.

Starting from the idea of Commons that transactions are transfers of property rights, transaction costs can be defined as costs arising from the transfer of rights. New Institutionalists restrict transaction costs to *monetary* or *valuable* (and thus, objective) ones.¹⁷ Notice however that there are also non-monetary subjective costs involved in transactions, the value of time spent in the transaction being one of them.¹⁸

From the point of view of tourists, transaction costs stem from the time subtracted to leisure. Sometimes they can be so high to work as a rationing criterion. But, apart from such a limit and very unusual case, tourists finally buy all the products they want without refraining just because of the length of the procedure. At the most, the unwillingness to undertake a long process of bargaining gives rise to a higher final price.

From the point of view of sellers, subjective transaction costs are generally speaking, lower: first, time spent in bargaining is working time, second, their experience makes the whole procedure not stressful for them. In their view, what is more important is that time spent in bargaining is, at an average, well compensated with respect to other remunerated work.

In the Neoclassical tradition the stability of cartels is analysed under the assumption of selfish maximising behaviour of all the participants: a cartel is stable if nobody can gain from betrayals. However, as far as instability is concerned, little can be said about the transition to different price mechanisms. Equilibrium analyses leave indeed very little space for the investigation of dynamics and evolution, concepts that, for their nature, are difficult to treat with the equilibrium method [cf. Hicks 1965].

As we have seen, the problem of the stability of a cartel agreement, seen as a social norm, is sometimes studied with the tools of game theory. In the particular case we are examining we know that short-sighted maximisers would find convenient to betray the cartel, selling at a lower price to a larger clientele; we have also seen that repeated games may explain, under particular assumptions, the emergence of co-operation among players.

Notice however, that the use of game theory for such an evolutionary analysis is not free from criticism: the dependence of behavioural rules on institutions, and the impossibility to know in advance all the payoffs make indeed the use of such tools at least hasty.²⁰

On the contrary, we suggest that the fact that betrayals are only occasional is directly dependent on the existence of the institution of bargaining which provides exactly the form of co-ordination necessary for the stability of the cartel. Whether the set of rules involved in the bargaining procedure is formally codified or not, is not relevant from the point of view of the general outcome. All those who live in a determined community know well that they must behave according to some general principles, no matter whether formally established or only conventional.

We are not denying the importance of the credibility of the threat of retaliations for the survival of the cartel. However, we want to stress that also other elements like the judgement of colleagues and, in some cases, solidaristic behaviours among indigenous sellers are involved.

Notice that by explicitly considering moral aspects as a motivation for forms of solidarity, the framework of game theory has to be abandoned.

The solidaristic principle as a behavioural rule is considered by orthodox economics as nothing more than a theoretical exercise, selfishness and optimisation being the universal assumptions. Thus, Neoclassical theory, in spite of its attempt of being universal, is in fact a

theory of capitalism or, better, of a particular form of it; its assumptions, particularly those of given preferences and selfish maximising behaviour are not universal at all, even though, to some extent, they can be considered as a first realistic approximation as far as a particular form of capitalism is analysed.

On the contrary, in the exploration of tourist bargaining, the solidaristic assumption should not be undervalued: ethnic, cultural and socio-economic factors make the local community highly homogeneous, whereas differences with the tourist population are strong. Moreover the institution of bargaining, not only coerces individuals into specific types of behaviour, but also bears upon their processes of cognition, what, to some extent, affects also individuals' preferences and beliefs and, in turns, can reinforce solidaristic behaviours.²¹

In order to explain the evolution of institutions, cultural traditions, solidaristic behaviours and material conditions have to be correctly weighted.

The process of evolution involves necessarily three principles: variation, heredity and selection [Hodgson, 1993].

A process generating variation in habits and routines in the institution of bargaining is the search for individual profit. The tacit agreement among sellers is, in fact, only a general rule. The possibility for a new price mechanism to emerge lies in the heredity and survival of the fittest which, in turns, depend on the evolution of the general environment.

The principle of heredity, as Veblen [1899] observes involves habits and routines; habits and routines tend indeed to be stable and, in a sense, can be regarded as having genetic qualities.²² In the case of bargaining such stability depends, to some extent, also on moral values like solidarity.

The principle of selection in such a framework does not lead necessarily to optimising behaviour as it is sometimes assumed by Neoclassical economists. Friedman [1953], for instance, conjectures that profit maximization "summarizes approximately the conditions for survival." Such a conjecture has been strongly and convincingly criticized by Nelson and Winter [1982] who argue that evolution is concerned with the *satisfying principle* rather than optimization; Schaffer [1989] also shows that optimizing behaviour have little chance to survive in a changing environment. On the contrary, the solidaristic principle, in particular contexts, is likely to be selected as a satisfying solution.

However, if objective conditions change in such a direction to question also indigenous solidarity, a new price mechanism can emerge (or the bargaining institution can change its features). Indeed, solidarity itself can be altered by the evolution of other factors.

Notice for instance, that if the number of tourists increases, the benefit of betraying the cartel increases and can lead to abandon solidarity towards selfishness. However, moral origins of solidarity cannot be reduced to a form of indirect selfishness completed by a systemic awareness as Neoclassicals do. On the contrary, they depend themselves on the historical context.²³

Material conditions and cultural and moral habits evolve thus in such a way that the institution of bargaining can change, or at the limit abandoned, being replaced, for instance by the fix offer price mechanism. Intentional human efforts and unplanned processes are thus coexisting determinants of the evolution of institutions. As Veblen [1899, p. 190] puts it, "the situation of today shapes the institutions of tomorrow through a selective, coercive process, by acting upon men's habitual view of things, and so altering or fortifying a point of view or a mental attitude handed down from the past".

The *suitability* of institutions is not simply the result of spontaneous adaptation, nor something planned by someone who has a co-ordinating power and a direct control on institutions. It is the mutual and cumulative causation of intentional efforts and spontaneous order that determines (and is determined by) the evolution of institutions.

FINAL REMARKS

The analysis of price mechanisms for their institutional features has pointed out that bargaining is, from the point of view of sellers, a suitable response to the presence of a rich tourism. Thanks to such a mechanism tourists' willingness to pay can be revealed and exploited.

Our work has been developed out of the Neoclassical approach, for in our view, Neoclassical school is incapable to deal with bargaining and, more generally, with institutional phenomena. The origin of this weakness is related to the adoption of formalism as a constitutive tenet of the whole approach. Notice indeed that Menger's rejection of formalism is not neutral but implies a different conception of economics in which the notion of bargaining can be analysed. By contrast, Neoclassicals, by fully adopting the formalist method, have developed an a-historical analysis, which prevents them from considering the concept of institution.

Menger's thought is also the main reference of the Austrian school. However, Austrians have deviated from the original Mengerian program, hardening their positions as far as subjectivism and methodological individualism are concerned. As a result, institutions are conceived exclusively as spontaneous phenomena, what in turns makes human planned interventions synonymous of inefficiency. This position is a radicalisation of the original claims of Carl Menger, who held a middle ground position between libertarianism and interventionism, warning against the erroneous idea that *laissez-faire* is legitimated by the "higher wisdom" of inherited institutions [Menger, 1963, p. 233].

Radicalism makes the Austrian tradition, to some respects, very similar to the Neoclassical school: in particular, their belief in the primacy of human action leads them to take individual preferences as given. Such a position is criticized by the Institutionalist school which considers individual preferences as the result of the institutional framework. Not only individuals' actions shape the institutional framework, but also the latter moulds the former in a cumulative causation process. Evolution becomes thus the central focus of economic analysis, which makes historical dimension and irreversibilities essential features of economic explanations. The explicit analysis of institutional feed-backs on individuals allows also to consider behavioural rules not necessarily inspired to selfish maximisation. The investigation on individual preferences has shown that the solidaristic principle is an important motive for the rise and the stability of the phenomenon of bargaining we have explored.

Moreover, the reciprocal interaction between individuals, institutions and environment has led to reconsider the concept of *efficiency*. A proper evolutionary analysis of the bargaining institution is indeed incompatible with a rigid and strong definition of efficiency. We have

thus proposed as an analytical alternative the concept of *suitability*, what can be seen as the final necessary moving away from the neoclassical approach.

Finally, the Institutionalist approach, by stressing the concepts of transaction and economic power allows to examine some ethical aspects of exchange. In the Neoclassical framework exchange is the mean by which Pareto efficiency is obtained; nothing else can be said from an ethical viewpoint; the concept of economic power, on the contrary, questions the neutrality of economic transaction. In particular, defining the efficiency of bargaining with exclusive reference to indigenous sellers, it is possible to point out that rich tourists, for once, are in a sense exploited.

NOTES

- 1. We want to stress that the nature of agents involved in the interaction is itself part of the definition. If the same interacting framework is applied to different kinds of agents, we are in fact defining a new institution.
- 2. Cf. Jaffé [1976] who questions the homogeneity of the three leaders of the so-called marginalist revolution, Walras, Jevons and Menger. For a general comparison between Austrians and Marginalists see also Streissler [1972].
- 3. We will thereafter use the appellation of "Austrians" to define the members of this tradition, developed around the figures of Mises and Hayek. [Cf. for instance, Kirzner, 1987]
- 4. Related to this definition of efficiency there is the idea that, in some ways, those who stably work in a determined institutional framework have more power to influence the evolution of the framework itself. This means that we introduce explicitly a subjective element in the definition of efficiency. Such a subjective element is necessary to evaluate to what extent aware human actions play a role in the evolution of institutions.
- 5. The idea that knowing the rules of the game economic phenomena can be understood and, to some extent, predicted is widely stressed in the Institutionalist literature. As Neale [1994: p. 405] puts it "One may not know why someone is playing bridge [..], but if one knows the rules of bridge and the cards in a player's hand, one can make some good guesses about the player's bidding and play of the cards."
- 6. The achievement of an agreement is made possible and convenient by the fact that sellers, to a large extent, have the same products.
- 7. Of course another reason for both the seller and the buyer to make the other do the first price is that it constrains only the party speaking; indeed expert buyers postpone as much as possible their call of a price and let the seller call two or more prices to see how far she can go down, before saying their first one.
- 8. The only exception being the father of one of the authors who, once agreed on the price, pays more.
- 9. In principle the personal character of exchange does not necessarily favour the seller. It simply heightens the role of the economic bargaining power of the parties that, in the case of tourist bargaining, is stronger on the supply side.
- 10. However, Gödel proved that formal systems are incomplete and that their internal self-consistency cannot be ascertained. Cf Kline [1980, ch. 11 and 12]. These overwhelming results compromise Hilbert's formalist program.
- 11. Ferguson, A. An Essay on the History of Civil Society, 1767. Quoted by Vaughn [1987: p. 997].

- 12. In fact, Austrians use game theory only as an expositionary tool and it does not question their rejection of formalism.
- 13. Other interesting examples of the analysis of the emergence of social norms studied by game theory tools are Ullman-Margalit [1977] and Schotter [1981].
- 14. For instance Cf. Lewis [1969] who studies the emergence of a convention of behaviour between caller and callee after a phone service interruption.
- 15. In the prisoners' dilemma literature, a well-known result for co-operation to emerge and to be stable (without abandoning the egoistic assumption) is that the game has to be repeated an indefinite (or at least an unknown) number of time. Axelrod [1984].
- 16. The urgency of modelling power as a central element of economic theory is stressed also by the Radical Political Economy. See for instance, Bowles and Gintis [1990].
- 17. The fact that transaction costs must be objective is fundamental for the Property Rights School which proposes the creation of proper markets through the development and enforcement of a system of individual property rights as a solution to market failures. Coase [1960], Demsetz [1967], Alchian and Demsetz [1972].
- 18. In this sense transaction costs arise every time an exchange takes place and become a structural feature of exchange; their subjectivity is in line with the subjective concept of *equilibrium price* as the outcome of bargaining.
- 19. In fact bargaining transaction costs are not necessarily *costs*; indeed the bargaining procedure has its fascination and can sometimes be very funny.
- 20. A deep investigation on the reasons why true institutional analysis are not reducible to a game theory perspective is in Hodgson [1988: p. 134-137]. The applicability of the Prisoner's Dilemma model to social sciences has been questioned also by Taylor [1987].
- 21. The endogeneity of preferences is largely stressed in the (Old) Institutional literature (for instance, Veblen [1899], Douglas [1987]). According to Hodgson the conception of preferences as endogenous or exogenous is one of the decisive differences between "Old and New Institutionalism". Hodgson [1994: p. 397-402].
- 22. The idea that routines act as genes is also adopted in Nelson-Winter theory of the firm. [Nelson and Winter, 1982]
- 23. Hodgson criticises the "New Institutionalist" approach to the analysis of evolution of institutions for it neglects the possibility that individuals themselves may be shaped by social institutions and for taking as granted self-interested maximisation as a universal feature of human life. Hodgson [1994: p. 397-398].

BIBLIOGRAPHY

Alchian, A.A. and H. Demsetz. "Production, Information Costs, and Economic Organization". *American Economic Review* (1972), n. 62.

Alter, M. "Carl Menger, Mathematics, and the Foundation of Neoclassical Value Theory". *Quaderni di Storia dell'Economia Politica* (1986): IV, 3.

Axelrod, R.M. *The Evolution of Cooperation*. New York and Harmondsworth, Basic Books and Penguin, 1984.

Bergner, J.T. *The Origin of Formalism in Social Science*. Chicago, Chicago University Press, 1981.

Boettke, P.J. (Ed.). *The Elgar Companion to Austrian Economics*. Edward Elgar, London, 1994.

Böhm-Bawerk, E. von. (1889): *The Positive Theory of Capital*. Trans. am. fourth ed., Libertarian Press, South Holland, Illinois, 1952.

Bowles, S. and H. Gintis. "Contested Exchange: New Microfoundations for the Political Economy of Capitalism". *Politics and Society*, 18 (2), (March 1990). Reprinted in J.E. Roemer. *Foundations of Analytical Marxism*. Volume 1, Cambridge University Press, 1994.

Caldwell, B. Beyond positivism, economic methodology in the twentieth century. Allen and Unwin, London, 1982.

Coase R.H. "The Problem of Social Cost". Journal of Law and Economics (1960), n.3.

Commons, J.R. *Legal Foundations of Capitalism*. New York, The MacMillan Company, 1924. Reprinted (1974) by Augustus M. Kelley Publishers, Clifton New Jersey.

Commons, J.R. (1934). *Institutional Economics: Its Place in Political Economy*. Reprinted New Brunswick: Transaction Publisher, 1990.

Commons, J.R. The Economics of Collective Action. Macmillan, 1950.

Debreu, G. Theory of Value. John Wiley and Sons, New York, 1959.

Demsetz H. "Towards a Theory of Property Rights". *American Economic Review* (Proceedings, 1967) n. 57.

Douglas, M. How Institutions Think. Routledge and Kegan Paul, 1987.

Endres, A.M. "The origins of Böhm-Bawerk "Greatest Error": Theoretical Points of Separation from Menger". *Journal of Institutional and Theoretical Economics* 143 (1987): 291-309.

Friedman, M. "The Methodology of Positive Economics". In *Essay in Positive Economic*. University of Chicago Press, 1953.

Hayek, F.A. *Individualism and Economic Order*. Chicago: University of Chicago Press, 1948.

Hayek, F.A. *Studies in Philosophy, Politics and Economics*. Routledge and Kegan Paul, London, 1967.

Hayek, F.A. Law, Legislation and Liberty. Vol.1: Rules and Order. Routledge and Kegan Paul, London, 1973.

Hicks, J.R. Capital and Growth. Clarendon Press, 1965.

Hicks, J.R. and W. Weber. C. Menger and the Austrian School of Economics. Clarendon Press, Oxford, 1973.

Hodgson, G.M. Economics and Institutions. A Manifesto for a Modern Institutional Economics. Polity Press, 1988.

Hodgson, G.M. *Economics and Evolution: Bringing Life Back Into Economics*. Cambridge, Polity Press, 1993.

Hodgson, G.M. "Institutionalism, "Old" and "New"". In Hodgson, G.M, Samuels W.J. and M.R. Tool, 1994.

Hodgson, G.M, Samuels W.J. and M.R. Tool. *The Elgar Companion to Institutional and Evolutionary Economics*. Edward Elgar, London, 1994.

Jaffé, W. "Menger, Jevons and Walras de-homogenized". *Economic Inquiry* 14(4), December, 1976: 511-24.

Kirzner, I.M. "Austrian School of Economics". Eatwell, J., Milgate, M. and Newman, P. (Eds.), *The New Palgrave: A dictionary of Economics*. London: Macmillan, 1987: 145-151.

Kline, M. Mathematics: the Loss of Certainty. Oxford University Press, New York, 1980.

Koppl, R.O. "Invisible hand explanations". In Boettke, P.J. 1994: 192-196.

Lachmann, L.M. "Methodological Individualism and the Market Economy". In Streissler, E. 1970: p.89-104.

Lewis, D. Conventions: A Philosophical Study. Cambridge: Cambridge University Press, 1969.

Menger C. (1871). *Principles of Economics*. The Free Press, Glencoe, Illinois, 1950.

Menger C.(1883). *Problems of Economics and Sociology*. Urbana: University of Illinois Press, 1963.

Menger, K. "Austrian Marginalism and Mathematical Economics". In Hicks, J.R. and W. Weber, 1973: 38-60.

Neale, W.C. "Institutions". In Hodgson, G.M, Samuels W.J. and M.R. Tool, 1994.

Nelson, R.R. and S.G. Winter. *An Evolutionary theory of Economic Change*, Belknap Press, 1982.

Prisching, M. "Evolution and Design of Social Institutions in Austrian Theory". *Journal of Economic Studies* (1982), Vol. 16, 2: 47-62.

Schaffer, M.E. "Are profit Maximisers the Best Survivors? A Darwinian Model of Economic Natural Selection". *Journal of economic Behaviour and Organization*, n. 12 (March 1989).

Schotter, A. The Economic Theory of Social Institutions. Cambridge University Press, 1981.

Schotter, A. "The Evolution of Rules". In Langlois, R.N. *Economics as a process. Essays in the New Institutional Economics*. Cambridge University Press, 1986.

Schotter, A. "Social Institutions and game theory". In Boettke, P.J. 1994: 556-564.

Schumpeter, J. A. History of Economic Analysis. New York, Oxford University Press, 1954.

Stigler, G.J. "The Economics of Information". *Journal of Political Economy* (1961), n. 69.

Streissler, E. (Ed.) *Road to Freedom: Essays in Honour fo Friedrich A. von Hayek.* Augustus M. Kelley Publishers, New York, 1970.

Streissler, E. "To what extent was the Austrian School Marginalist?". *History of Political Economy*, (Fall 1972), 4(2): 426-441.

Streissler, E. and W. Weber. "The Menger Tradition". In Hicks, J.R. and W. Weber, 1973.

Taylor, M. The Possibility of Cooperation. Cambridge University Press, 1987.

Ullman-Margalit, E. *The Emergence of Norms*. Oxford University Press, 1977.

Ulmann-Margalit, E. "Invisible hand Explanations". Synthese, (1978: 39: 2): 263-91.

Vanberg, V. "Spontaneous Market Order and Social Rules". *Economics and Philosophy*, (1986, 2): 75-100.

Vaughn, K. "Invisible Hand". Eatwell, J., Milgate, M., and P. Newman (Eds.), *The New Palgrave: A dictionary of Economics*. London: Macmillan, 1987: 997-8.

Veblen, T.B. *The Theory of the Leisure Class: an Economic Study of Institutions*. MacMillan, 1899.