ON THE RELATION BETWEEN ECONOMICS AND SOCIOLOGY: MARSHALL AND SCHUMPETER

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This contribution is devoted to the relation between economics and sociology in the respective works of Alfred Marshall and Joseph Schumpeter. Obviously, differences are unavoidable between these authors if we consider their periods of life and their ways of connecting both disciplines. Marshall began to write papers and books in the period of birth and early development of sociology, while Schumpeter could attend and even participate to its period of maturity. However, in spite of these differences, we would like to show that Marshall and Schumpeter shared the same conception of the role of economic theory within the realm of social science. To put it in a few words, they both considered that economic analysis (in its Schumpeterian sense) could not be reduced to pure economic theory as it is often argued in the Walrasian tradition (in contradiction, however, with the works of Léon Walras himself) but had to combine this theory and history with the intermediary help of what Schumpeter called economic sociology and Marshall called a reasoned history of man. Our paper includes two parts. The first part focuses on the nature of the complementarity that Marshall and Schumpeter pointed out between economic theory and sociology. The second part shows how both authors incorporated organisation and economic institutions within economic analysis and why their approaches may provide some ideas and tools for the modern economist who is not satisfied with axiomatic approaches.

1. ECONOMICS AND SOCIOLOGY IN MARSHALL AND SCHUMPETER: AN INTRODUCTION

Marshall's 'reasoned history of man'

Alfred Marshall was aware of the first developments of sociology in the end of the XIXth century but he was also inclined to underestimate its potential developments. One of the main explanations of his scepticism as regards sociology is certainly his critique of the contribution of Auguste Comte (cf. Marshall, 1916: 771, appendix C):

> The present movement towards Sociology in America, England and other countries recognizes the need for the intensive study of economics and other branches of social science.

> But perhaps the use of the term Sociology is premature. For it seems to claim that a unification of social sciences is already in sight: and though some excellent intensive studies have been published under the name of Sociology, it is doubtful whether those efforts at unification which have been made so far have achieved any great success beyond that of preparing the way and erecting danger posts at its pitfalls for the guidance of later generations (…)
>
> (Marshall 1916: 771, footnote 1)

These statements, however, do not mean that Marshall was a strict defender of pure economics. Quite the contrary, in 1899, he wrote to his colleague William Hewins:

> It seems strange to me to be asked my views as to the study of pure economic theory; as tho 'that were a subject on wh I were fit to speak. For indeed I was never a partisan of it; & for more than a quarter of a century I have set my face away from it. As early as 1873 (I think that was the year) Walras pressed me to publish something about it; & I declined with emphasis.
> The fact is I am the dull mean man, who holds Economics to be an organic whole, & has as little respect for pure theory (otherwise than a branch of mathematics or the science of numbers), as for that crude collection & interpretation of facts without the aid of high analysis which sometimes claims to be a part of economic history.
>
> (Marshall, 12th October 1899, letter to William Albert Samuel Hewins/1996, volume2: 256)

The last sentence of this quotation offers a good summary of Marshall's viewpoint. Thus, in his 'Present Position of Economics' (1885) (1925/1966), he attributes to economic theory as such the role it has to play within social science. He defines the 'economic organon' (Marshall, 1925/1966: 161) as the 'analysis of the positive motives of desire for different goods, and of the negative motives of unwillingness to undergo the fatigues and sacrifices involved in producing them'. He then rejects two opposite approaches.

The first consists in 'separating' the 'study of economic from that of other social phenomena' (161) and using a pure 'formal analysis' (164). This approach appears to be wrong if it is 'exaggerated' and this is the reason why Marshall was so sceptical about pure economic theory. However, the fact that 'complex social phenomena are (…) intricately interwoven with one another' (161) does not plead in favour of a new synthetic social science which will replace both sociology and economics. The adequate methodology consists 'to break the problem up into its several parts' (164), to utilize the different sciences which are needed one after the other and then to draw conclusions. From this standpoint, the 'economic organon' must be used in its proper place, that is, the analysis of the part of a given social phenomenon which is related to 'those actions and sacrifices which commonly have a money price' (164).

The second approach which Marshall rejects is the one which 'urges (…) to reason direct from facts to facts, without the intervention of any formal theory' (163). Observation does not allow actually to discover the 'causes' of actions and

> gives no guidance except for (…) cases in which exactly the same set of facts occurs over again, grouped in just the same way. [Now] (…) history does not repeat itself.

Marshall appears therefore to be in favour of a combination of economic theory (that is the 'economic organon'), of common sense ('the final arbiter' according to Marshall, 1885, 1925/1966: 164) and of economic history (Marshall, 1916: 774-775). The reference to common sense is methodological. It must be interpreted as the means to deal with complexity in breaking problems into their component parts and discussing 'one set of considerations after another' (Marshall, 1885, 1925/1966: 164). Economic history helps to understand 'what has been the institutional framework of society at the several periods, what has been the constitution of the various social classes and their relation to one another' (Ashley, **On the study of economic history**, quoted by Marshall, 1916: 775). It concerns the organization of labour, the various forms of production and distribution, the institutional set-up of the economic system, and so on. Therefore, what is called by Marshall 'economic history' is closer to an analytical view of social organisation, institutions and institutional change rather than to an accumulation of facts. This definition of economic history explains Marshall's characterization of 'social science' as ***'the reasoned history of man'*** (our emphasis) since according to the author, 'the two things are the same' (Marshall, 1897, 1925/1966: 299). This historical feature of social science explains why Marshall's combination of economic history and theory is obviously useful when he is considering economic dynamics.
To understand this statement, it is first necessary to remind Marshall's conception of economic agents. This conception is different from the usual axiomatic one according to which it is possible

> to construct an abstract science with regard to the actions of an 'economic man', who is under no ethical influences and who pursues pecuniary gain warily and energetically, but mechanically and selfishly.
>
> (Marshall, 1916: xiv)

According to Marshall, the main topic of economists is to study the behaviours of 'ordinary people' (Marshall, 1916: xiv) and this is why he defined 'political economy or economics' as 'a study of mankind in the ordinary business of life' (Marshall, 1916: 1). 'Ordinary people' imply normality certainly. Now, if economies are considered to be in a « normal » state, social interaction among agents corresponds to Marshall's « normal economic action », namely « which may be expected in the long run under certain conditions (provided those conditions are persistent) from the members of an industrial

group » (Marshall, 1916: 34). This standpoint explains why Marshall abandoned what he considered to be a too extreme form of individualism and developped an original view of the relation between individuals and society:

> Perhaps the earlier English economists confined their attention too much to the motives of individual action. But in fact economists, like all other students of social science, are concerned with individuals chiefly as members of the social organism. As a cathedral is something more than the stones of which it is made, as a person is something more than a series of thoughts and feelings, so the life of society is something more than the sum of the lives of its individual members. It is true that the action of the whole is made up of that of its constituent parts; and that in most economic problems the best starting-point is to be found in the motives that affect the individual, regarded not indeed as an isolated atom, but as a member of some particular trade or industrial group
>
> (Marshall, 1916:.25)

This view means that agents had to be considered as embedded agents, belonging to a specific historical and social context and to a particular group or trade. Within statics, this remark is not crucial since the logic of 'economic man' prevails. The predominant motive is pecuniary self-interest and the economist can easily neglect other social motives. On the contrary, within dynamics, the 'economic man 'is replaced by the 'man of flesh and blood' or the 'man as he is' (Marshall, 1916: 27). New motives have to be taken into account and, therefore, economic theory is no longer sufficient; it must be completed by other social sciences as history or sociology. A good example is given by the way Marshall describes the motives of the 'economic chevalry' (Marshall, 1907, 1925/1966: 323-346)

Before Schumpeter but perhaps not independenly from Wieser, Marshall actually developed the idea that, in market economies, a 'chivalry in business' replaced the 'chivalry in war' of the Middle Ages (Marshall, 1907, 1925/1966: 329). Now, as in Schumpeter later, even if Marshall did not really link innovation and entrepreneurship, one of the main characteristics of this category of agents is that their rationality cannot be reduced to pecuniary self-interest. On the one hand, 'chivalry in business' includes public spirit. Entrepreneurs earn profits but they may be –and often are – ' proud of the elevation of life which have been achieved by training the finer elements of human nature to full account in the production of wealth and in its use' (Marshall, 1907, 1925/1966: 330). Therefore, it is clear that self-interest strictly speaking is not the only motive of entrepreneurs even if they do not disdain to gain profits. On the other hand, Marshall also foreruns Schumpeter 's developments on 'energetic' rationality. He notes that among the main motives, it is also necessary to include 'a delight in doing noble

and difficult things because they are noble and difficult' (Marshall, 1907:1925/ 1966) . This motive is therefore subjective and it is impossible to measure it but it can be evaluated indirectly by the degrees of success and of leadership obtained by a given businessman.

Another example of the difficulties related to the use of the concepts of 'economic man' and of the self-interest assumption .It is clear that the rejection of atomicism, subjectivism or selfish individualism by Marshall excludes a vision which would characterize society as a set of competitive and isolated individuals. Marshall indeed accepts the view that society presupposes individual interaction. Even if he never built a complete theory of social interaction in an economy, his writings reveal a very rich vision of inter-individual relations. Marshall was indeed perfectly aware that

> in human conduct are condition does not control another, but altogether they mutually determine one another

and that

> to grasp at one view this manifold mutual action is a very difficult task
>
> (Marshall, 1925/1966: 161).

He however offered a typology of social interaction which we can reconstruct. First, Marshall stressed innovative behaviours. A good example of this kind is given by behaviours based on "trial and error":

> When we speak of the measurement of desire by the action to which it forms the incentive, it is not to be supposed that we assume every action to be deliberate, and the outcome of calculation. For in this, as in every other respect, economics takes man just as he is in ordinary life: and in ordinary life people do not weight beforehand the results of every action, whether the impulses to it come from their higher nature or their lower.
> Now the side of life with which economies is specially concerned is that in which man's conduct is most deliberate, and in which he most often reckons up the advantages and disadvantages of any particular action before he enters on it. And further it is that side of his life in which, when he does follow habit and customs, and proceeds for the moment without calculation, the habits and customs themselves are most nearly sure to have risen from a close and careful watching of the advantages and disadvantages of different courses of conduct. There will not in general have been any forma reckoning up of two sides of a balance-sheet: but men going home from their day's work, or in their social meetings, will have said to one another, "It did not answer to do this, it would have been better to do that", and so on
>
> (Marshall, 1916: 20-21).

Therefore, according to this view, agents are involved in a learning more than in an optimizing process. They are confronted with various types of uncertainty and they react by

experimenting solutions according to their current expectations, which clearly implies a procedural rationality. The process of trial and error described by Marshall implies a confrontation with other agents. Thus, *learning processes* are also *teaching* processes for other agents:

> Again, each man profits by the ideas of his neighbours: he is stimulated by contact with those who are interested in his own pursuit to make new experiments; and each successful invention, whether it be a new machine, a new process, or a new way of organizing the business, is likely when once started to spread and to be improved upon (Marshall A. and Marshall M., 1881: 53).

Therefore, the trial and error behaviour reveals a double aspect. On one hand, it is a procedural device which allows the agent to face uncertainty and try to find in historical time a satisfactory solution to the problems faced. On the other hand, is also provides a process of diffusion of private knowledge. In other words, while performing his experiments, the agent teaches his neighbours a part of his own knowledge. However, the reverse might also happen if the other agents try to help our first agent to solve the problem. This means that a generalization of Marshall's "social meetings" at the level of the whole society could be interpreted as a massive process of transformation of private or tacit knowledge into a social one. Learning and knowledge diffusion are here simultaneous processes. They provoke the kind of concentration of capabilities which occur in industrial districts through reciprocal education (Marshall A. and Marshall M., 1881: 53). They include the different forms of learning, whether by using or by doing. Individual motivations are not hedonistic here. Moreover, they are incompatible with a scheme in which pure economic men are only related by a unique centralised price mechanism and not through various decentralised social interactions.

The analysis of the impact of social interaction on the economic system provides a second example of the reasons which led Marshall to combine economic theory and economic sociology and/or social interaction models. As in the case of chivalry behaviours, the 'economic organon' is unsufficient to analyse the complexity of some economic phenomena which result from both the usual economic rationality but also from other rational beliefs or motives.

Schumpeter's techniques of economic analysis

It is now time to recall Schumpeter's own characterisation of the role of economic sociology as a complementary technique, alongside the three techniques of economic analysis he lists at the beginning of his **History of Economic Analysis**, namely history, statistics and 'theory'

> The schemata of economic theory derive the institutional frameworks within which they are supposed to function from economic history, which alone can tell us what sort of society it was, or is, to which the theoretical schemata are to apply. Yet, it is not only economic history that renders this service to economic theory. It is easy to see that when we introduce the institution of private poverty or of free contracting or else a greater or smaller amount of government regulation, we are introducing social facts that are not simply economic history but are a sort of generalized or typified or stylized economic history. And this applies still more to the general forms of human behavior which we assume either in general or for certain social situations but not for others […]. To use a felicitous phrase: economic analysis deals with the questions how people behave at any time and what the economic effects are they produce by so behaving; economic sociology deals with the questions how they came to behave as they do. If we define human behavior widely enough so that it includes not only actions and motives and propensities but also *the social institutions* that are relevant to economic behavior such as government, property inheritance, contract, and so on, that phrase really tells us what we need.
>
> (Schumpeter 1954: 20–1, emphasis added).

In this passage, Schumpeter explains the relationship between economic analysis and economic sociology. To get the full picture, it is, however, necessary to complement this statement with Schumpeter's remarks on this question in **Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie** as well as in his sociological writings. These texts do, in effect, add considerable substance to Schumpeter's statement in the above passage. Careful reading reveals that Schumpeter regarded the 'science of organisation' as part of economic sociology (Schumpeter 1908: 133). Thus, economic sociology includes

> the science of state forms but also the science of the forms of law and of the remaining social relations and structures and, thirdly, the science of economic organisation as such: on the one hand, the division of labour and on the other hand, the formation of cartels, of labour associations, etc.
>
> (133)

What Schumpeter asserts in his **History of Economic Analysis** is that, for the economist, history provides the raw material that consists of empirical sets of diverse institutions and

forms of organisation. However, this raw material requires further work in order to produce the assumptions that are made when the economist sets out to build an economic theory. First, economic sociology must 'generalize', 'typify' and 'stylize' the empirical forms of institutions and organisations so as to transform the historical set from which they are drawn into a more abstract set of ideal types on which the economist can then built his analytical assumptions. Second, referring to the example of fiscal sociology, Schumpeter (1918/1991: 177, footnote 18) emphasises that the historical order according to which institutions and organizational forms emerge, develop and decline *must not* be confused with the analytical process by which sociology provides a logical explanation of these changes. Seen thus, historical chronology is partially arbitrary whereas economic sociology must respect the necessary requirements of consistent analysis. Third, economic sociology must extract from history what is strictly economic, and this obviously presupposes a relative autonomy or 'self-containment' of the economic sphere (Schumpeter 1908: 135). Schumpeter provides an illuminating example of this when he argues that the legal aspects of the institution of credit (namely, the strict requirement for the borrower to repay the lender) must be distinguished from – but also determine – its economic aspects (namely, the implications of this requirement for the expectations and economic behaviour of agents) (Schumpeter, 1917-18, 1956: 155–7). Finally, if we consider economic activity from the point of view of dynamics, it can also create feedback effects on institutions, organisation or law. A case in point is Schumpeter's analysis of taxation and, more specifically, his emphasis on the limitations of fiscal impositions arising from the need not to squeeze profits beyond a certain point (Schumpeter, 1917/1983: 149).

Economic sociology, according to Schumpeter, can thus be defined as the science of the emergence, maintenance and decline of societal institutions and forms of organisation that influence economic behaviour.

From this standpoint, according to Schumpeter, human motives are never strictly individual. Rather, as in Marshall, they are always embedded in a social context and related to the historical circumstances under which they have emerged. From this point of view, two main concepts are essential.

On the one hand, following Wieser's conception of economic sociology, Schumpeter argues that, whatever the social environment, men are always divided into two categories: leaders and followers. It should, however, be noted that Schumpeter does not regard leaders as superior or 'great men' (Schumpeter, 1927/1951: 216). They are not in possession of special

intellectual qualities that would lead them to play a pre-eminent social role. Nor do they have a conscious concept of social optimality that they would strive to put into practise (216.). Rather, '[w]e are content to say that social leadership means to decide, to command, to prevail, to advance. As such it is a special function, always clearly discernible in the actions of the individual and within the social whole' (217).

Leaders' motives are related to their 'instinctive urge to domination' (Schumpeter 1919/1951: 15), an 'excess of energy' (34) or 'activity urges springing from capacities and inclinations that had once been crucial to survival, though they had now outlived their usefulness' (44). These 'urges' (or this *Trieb*, 83) are defined by Schumpeter as human inclinations that have more to do with 'instinct' than with reason (83–4). They involve creativity and entail permanent changes to the sphere in which they appear (be this the arts, science, economic activity, etc.). Always following Wieser, Schumpeter regards followers as playing a more passive role in that they are the mere recipients of leaders' decisions, acting to diffuse them. They can reinforce these decisions and contribute to their social generalisation through the adoption of imitative behaviour or the manifestation of trust. But they can also resist them, slowing down the process of diffusion or sometimes even preventing the mechanisms of social diffusion from working.

On the other hand, however, leadership is not independent from the social context in which it appears. Schumpeter strongly stresses this aspect of social behaviour. First, the *Trieb* or 'urge' provides only part of the social explanation of leaders' motives. Referring to warlike societies, Schumpeter argues that

> [t]he explanation lies, instead, in the vital needs of situations that molded peoples and classes into warriors – if they wanted to avoid extinction – and in the fact that psychological dispositions and social structures acquired in the dim past in such situations, once firmly established, tend to maintain themselves and to continue in effect long after they have lost their meaning and their life-preserving function.
>
> (Schumpeter 1919/1951: 83–4).

Second, the social scientist must also take account of what the 'subsidiary factors that facilitate the survival of such dispositions and structures' (ibid.) could be. That is, he must pay attention to the interests of social classes and of those individuals whose interests are being served by maintaining a state of war. In other words, the second concept that needs to be introduced at this stage of our discussion is the concept of social class. For Schumpeter, a social class is defined as a set of individuals who, in a specific social context, are able to perform a given and specific social function:

> The ultimate foundation on which the class phenomenon rests consists of individual differences in aptitude. What is meant is not differences in an absolute sense, but differences in aptitude with respect to those functions which the environment makes 'socially necessary' – in our sense – at any given time; and with respect to leadership, along lines that are in keeping with those functions.
>
> (Schumpeter 1927/1951: 210)

Schumpeter, therefore, does not seem to think that it is possible to define social classes from either a purely individualistic or holistic methodological point of view:

> We cannot help those who are unable to see that the individual is a *social* fact, the psychological an *objective* fact, who cannot give up toying with the empty contrasts of the individual *vs.* the social, the subjective *vs.* the objective.
>
> (Schumpeter 1927/1951: 211, emphasis in the original).

This characterisation of social classes explains why class interest exists as such and why the fact that an individual belongs to a given social class influences this individual in a way that does not solely depend on his or her own free will but also on what Wieser called social 'compulsory forces'.

What then is the relationship between leadership and social classes? It is clear that, for Schumpeter, these two ideal typical concepts must be carefully distinguished. In a market economy for instance, leaders – that is, entrepreneurs – do *not* form a social class (Schumpeter (1912, 1934/1978 and 1939: 104). Although they exert a strong influence on social order through their innovative role, thus contributing to the evolution of social structure, this does not imply that 'the entrepreneurial function will *lead* to certain class positions for the successful entrepreneur and his family' (Schumpeter (1912/1934: 78). Moreover, the entrepreneurial function cannot be inherited (79). Finally, leaders use the social structure to achieve their ends. For instance, in ancient Egypt, kings used the military aristocracy to organise society according to their own objectives (Schumpeter 1919/1951: 165).

Entrepreneurs are the economic leaders of the market economy. This represents 'a fundamental truth of the sociology of industrial society' (Schumpeter 1939: 96) in that entrepreneurs create the 'institutional patterns' of economic development. The excess energy that characterised the leaders of ancient societies based on aristocratic hierarchies and military objectives now turns into what Schumpeter calls 'energetic'– as opposed to 'hedonistic' – rationality or egoism in **Das Wesen des Geldes** as well as in the first German edition of the **Theory of Economic Development** modern societies,

> [t]here is much less excess energy to be vented in war and conquest than in any precapitalist society. What excess energy there is flows largely into industry itself, accounts for its shining figures – the type of the captain of industry – [...]. In a purely capitalist world, what was once energy for war becomes simply energy for labor of every kind.
>
> (Schumpeter 1919/1951: 90).

In market economies, excess energy is channelled into the introduction of innovations, such as new products or new productive techniques. These innovations do not result from exogenous shocks or endogenous mechanisms of technology creation generated by firm managers or owners. Rather, they are introduced by what Schumpeter called 'New Men' (Schumpeter 1939: 96). In other words, they presuppose the emergence of leaders who use their excess energy to promote the transition from the circular flow to economic development. Therefore, innovations and economic development appear to be the natural consequences of the particular new form of leadership that prevails in a market economy.
However, innovations do not last forever. Gradually, they are diffused throughout the economic system and transformed into routines or 'habitual economic methods' (Schumpeter (1912 , 1934: 8). As they come to prevail, these individual routines and the resulting network of social rules or norms eventually produce the 'institutional patterns' that pervade the markets and influence the internal organisation of the firm.

2. FORMS OF ORGANIZATION AND INSTITUTIONS

Marshall, social organization and economic institutions

As soon as 1879, Alfred Marshall and Mary Paley gave their definition of **organization**:

> A body is said to be highly *organized* when each part has its own work to perform, when by performing this work, it contributes to the well-being of the whole; while, on the other hand, each part depends for its own well-being on the efficient working of the other parts
>
> (Marshall A. and Marshall M., 1881: 45-46).

Since, for Marshall, firms, "industrial towns", districts, nations… are all organized, this view of organization implies that individual agents cannot be conceived as homogeneous atoms playing the same role in the economy. Agents have specific "works" to "perform"; these "works" are complementary and their combination is the condition of an "efficient working" of the system. Therefore, to a certain extent, agents are always heterogeneous and the key which permits us to understand how this heterogeneity is compatible with the existence of a coherent system lies in the understanding of the principle of organization, namely, of a rule which is exogenous to individual agents and assigns to them specific functions to perform. This is the significance of Marshall's well-known metaphor of the cathedral which we already refered to earlier.

This metaphor also stresses the importance given by Marshall to the problem of individual interaction. However, individual interaction is not only behavioral. It is also organizational. To explain this circumstance, Marshall refers to a biological analogy, pointing out the

> fundamental unity of action between the laws of nature in the physical and in the moral world. This central unity is set forth in the general rule, to which there are not very many exceptions, that the development of the organism, whether social or physical, involves an increasing subdivision of functions between its separate parts on the one hand, and on the other a more intimate connection between them (Marshall, 1916; 241).

Then, Marshall makes more precise this coexistence of differentiation and unification, stressing that

> this increased subdivision of functions, or 'differentiation', as it is called, manifests itself with regard to industry in such forms as the division of labor, and the development of socialized skill, knowledge and machinery: while 'integration', that is, a growing intimacy and firmness of the connections between the separate parts of the industrial organism, shows itself in such forms as the increase of security of commercial credit, and of the means and habits of communication by sea and road, by railway and telegraph, by post and printing press (Marshall, 1916: 241)

At the level of the nation, this "differentiation" entails the emergence of what Marshall calls "sections", "strata" or "compartments" in *Industry and Trade* (Marshall, 1923: 8) and

corresponds to social division of labor. At the level of the firm, it corresponds to technical division of labor and specialization. This is why Marshall notes that organization

> has many forms, e.g., that of a single business, that of various businesses in the same trade, that of various trades relatively to one another, and that of the State providing security for all and help for many
>
> (Marshall, 1916: 138).

The reference to "integration" reminds that differentiation must be compatible with inter-individual coordination and the examples of railways, telephones, telegraphs… given by Marshall show how travel facilities, geographical mobility and the development of communication means make coordination easier.

Marshall's concept of organization seems to imply that the adaptation of the "social organism" obeys to natural laws comparable to the laws of mechanics and independent from individual behaviors. This is however a first sight impression which must be dissipated. On the one hand, individual agents are not naturally and necessarily adapted to the organizational constraints which they have to face. In the context of economic change, they must learn how to adapt and that takes time and provokes "trials and errors". On the other hand, the concrete organizational forms are shaped by innovative individual decisions, which means that the *accumulation* of the *different* behaviors exert feed-back effects on organization. The analysis of the interaction between organization and human behaviors however implies the introduction of the role played by technology.

The characterization of organization proposed by Marshall in relation with the notions of differenciation and integration is sufficiently general to be applied to any type of social "body": the biological analogy still confirms this interpretation. However, in his contributions, Marshall essentially applied the concept of organization to the activity of production. This choice appears clearly in the beginning of Book IV of Marshall's *Principles* dedicated to "the agents of production". More specifically, organization is related to one of these agents, namely capital:

> Capital consists in a great part of knowledge and organization: and of this some part is private property and other part is not. Knowledge is our most powerful engine of production ; it enables us to subdue Nature and force her to satisfy our wants. Organization aids knowledge (…).
>
> In a sense there are only two agents of production, nature and man. Capital and organization are the result of the work of man aided by nature, and directed by his power of forecasting the future and his willingness to make provision for it. If the character and powers of nature and of man be given, the growth of wealth and

> knowledge and organization follow from them as effect from cause. But on the other hand man is himself largely formed by his surroundings, in which nature plays a great part: and thus from every point of view man is the centre of the problem of production as well as that of consumption ; and also of that further problem of the relations between the two, which goes by the twofold name of Distribution and Exchange.
> The growth of mankind in numbers, in health and strength, in knowledge, ability, and in richness is an aim to which economics can do no more than contribute some important elements
>
> (Marshall, 1916, pp. 138-139)

This quotation implies that the change of the character of man and mankind is the ultimate end of the theory of economic evolution. However, in the economic framework, the activities of production, consumption and distribution of wealth which it carries have not the same role in the explanation. For Marshall, production (and related to it, productive organization and knowledge) is the main "engine". This view is developed in chapter II of Book III of the *Principles* dedicated to "wants in relation to activities". In this chapter, Marshall indeed stresses the importance of the variety of wants we will consider later but he subordinates this increase of the number of wants to the evolution of the activities which permits it:

> Speaking broadly therefore, although it is man's wants in the earliest stages of his development that give rise to his activities, yet afterwards each new step upwards is to be regarded as the development of new activities giving rise to new wants, rather than of new wants giving rise to new activities (Marshall, 1916: 89).

Marshall also gave a fundamental role to economic **institutions** in his conception of economics. We will however favour there a specific example , namely, the case of **national institutions** since it is both central and meaningful in the Marshallian framework (for a more detailed approach, see Arena, 1999).

A first example is given by the institutional set-up of the magnitudes which modern economists assimilate to **« fundamentals »**, namely, consumers preferences, productive techniques and natural or human endowments.

The first case we shall consider is **consumer preferences**. These preferences cannot be analysed independently of their social and institutional environment, according to Marshall. Thus, he first refered to public or collective goods consisting « of the benefits which (an individual) derives from living in a certain place at a certain time, and being a member of a certain State or community » (Marshall, 1916, p.158). In other words, these goods usually

correspond to a **national** structure of preferences. According to the country or the industrial district in which they live, consumers follow some specific habits or customs which lead them to some specific types of consumption. Here again, the social stratification of tastes can become rather complex according to the general tendency of economies towards complexity :

> Many commodities with regard to which the tendency to increasing returns acts strongly are, more or less, specialities ; some of them aim at creating a new want, or at meeting an old want in a new way. Some of them are adapted to special tastes and can never have a large market ; and some have merits that are not easily tested, and must win their way to general favour slowly
>
> (Marshall, 1916: 287).

Collective goods include

> civil and military security and the right and opportunity to make use of public property and institutions of all kinds, such as roads, gaslights, etc. and rights to justice or to a free education (59).

Marshall also considers **free goods**, that is, « free gifts of nature » . He does not forget **immaterial goods** (« non material elements of national wealth »,.59) such as « the organization of society or the State », a part of « scientific knowledge » (the other part being « cosmopolitan ») or national literature.

Finally, Marshall also exhibits the influence of national elements such as the climate on the **necessaries of life**, among which food or other familial categories of expenditures (Marshall, 1916: 195-196).

The social or institutional framework also exerts its influence on private tastes as such. The reference to art according to the kind of spatial environment of the individual (countryside, small towns, large towns,...) is a good instance of this type of action (Marshall, 1916 : 108) : music is not listened to in the same way in a town or in a country in which people are supposed to have very different musical sensibilities.

Another important element of what economists today call « fundamentals » is the state of **productive techniques**. Marshall distinguished, in this context, three different themes.

On one side, he afforded a large room in **Industry and Trade** to the causes of the technological supremacy of the United Kingdom after the Industrial Revolution. Books I and II of **Industry and Trade** are predominantly concerned with this type of issue. The last editions of the **Principles** showed how England little by little lost its comparative advantages,

especially within the technological competition process implemented by Americans and Germans at the end of the XIXth and the beginning of the XXth centuries (for instance Marshall, 1916: 210-211).

On the other side, Marshall also developed substantial considerations on the problem of technical education. He invoked the old institutional system of technical education based on apprenticeship, which he did not consider to be « exactly suited to modern conditions » (Marshall, 1916: 210) but which had, however, interesting advantages. He compared it with a more school-oriented system, also stressing its qualities and drawbacks (208-210). He, finally, investigated the advances realized by the respective national institutions and systems of technical education in England, Germany and North America.

One of the most stimulating analyses provided by Marshall dealt with the problem of the diffusion of technical and scientific knowledge. Our author was indeed convinced that if, at his epoch, this type of knowledge still permitted some countries to gain comparative advantages, it would, however, be less and less the case since knowledge was diffused more and more internationally. Therefore, it could tend to become, in future, a cosmopolitan collective good rather than a national one (Marshall, 1916: 210-211).

As we know, **initial endowments** are the last element of the triad of « fundamentals » Marshall did not neglect it, focusing however on its **human dimension**. This choice is significant since Marshall did not pay too much attention to natural resources as such. This meant that, for our author, the lack or abundance of natural resources was far less important than the way and the extent according to which a given national population would be able to use them efficiently. On the contrary, Marshall strongly emphasized the part played by human factors, investigating them in great detail. Four main themes were successively considered.

The first theme was the influence of nature on the inner qualities of a national population. He began with physiological qualities, refering to « man's strength and energy » (for instance Marshall A. and M., 1891: 10). He attributed a major importance to those factors, showing how they contributed to « industrial efficiency, on which the production of material wealth depends » (Marshall, 1916: 193). He also related those factors with the influence of climate and race, emphasizing the first of these two elements (195). He also mentioned the role of the national health system, showing its main effects on demography.

Marshall also coped with what he called « mental and moral » qualitities, such as integrity, self-confidence, patience, temperance, honesty, loyalty, etc... (Marshall A. and M., 1891 and

Marshall, 1916 : 16). He attributed most of these qualities to Englishmen and was convinced they strongly helped to the Industrial Revolution.

Demographic qualities are not only natural, however. Intellectual and technical capabilities also strongly depend on the system and the institutions of national education. In this framework, Marshall distinguished between general and technical educations :

> General education should (...) aim at causing a man to form an intelligent opinion with regards to the ordinary matters of life and to be full of resources for meeting new emergencies.
> Technical education should aim at enabling him to understand the processes and the machinery of the special work in which he is engaged. It should help him to understand the reason of everything that goes on in his trade, and thus enable him to accomodate himself to new machinery or new modes of production
>
> (Marshall A. and M.,1891: 11).

Finally, Marshall tried to illustrate how all these physiological, moral and educational qualities combined to contribute to the emergence of what Marshall called « a national spirit in industry and trade » (Marshall, 1922, p.1). This emergence was favoured by three main convergent factors. On the one hand, the consciousness of national qualities reached through education was able to convince citizens that they belonged to a great nation :

> Industrial leadership comes for much among national ideas. And if an individual, devoted merely to material ends, is but a poor creature, still more ignoble is a nation that is devoided of national ideas: that is of ideals which recognize a national life as something more than the agregate of individual lives
>
> (Marshall, 1923: 3).

Moreover, education contributed to reduce the social differences.

> The spread of education is rapidly effacing those distinctions of mind and character between different social strata, which have prevailed in nearly all the very peopled countries during several thousand years (...). We are indeed approaching rapidly to conditions (...) under which the relations between the various industrial strata of a civilized nation are being based on reason, rather than tradition
>
> (Marshall, 1923: 5).

On the other hand, institutions which favour free industry and enterprise were spreading and their multiplication contributed to reduce sectional rigidities and the weight of tradition and custom (Marshall, 1916: 270). Finally,

> universal education, cheap and popular newspapers combined with the commodious and relatively cheap facilities of railway travel have at least removed almost every trace of the difficulties, which formerly prevented the attainment by a whole country of that full economic unity, which used to be regarded as belonging only to compact trading and industrial cities
>
> (Marshall, 1922: 6).

Apart from the institutional set-up of education, a nation is also refered to thanks to its **monetary and financial institutions**. According to Marshall, a given national monetary and financial system combines four main ingredients. The first and basic one lies in the existence of a specific national currency. The national currency is indeed the expression of the social acceptance of a **common** instrument of economic measurement defined within the institutional framework of the monetary powers of the national State:

> Causes deep set in human nature underlie the facts that national currency has been a chief symbol of national unity
>
> (Marshall, 1922: 9).

The existence of a national currency then allows the set-up of a Central Bank and of a national money market. The Central Bank is a crucial institutional ingredient of the system according to Marshall. It is absolutely necessary since a free banking system would allow the predominance of particular or « sectional » interests on the national interest. It would therefore weaken national unity:

> The Bank of England has become not only the Bank of bankers, but also their leader in matters that directly affect the security of general credit in the business of the country. Its Directors include many leading business men : and it has been stated publicly that, as a general rule, their stakes in the Bank itself are so much less than their stakes in the general commercial prosperity of the country, that they cannot be tempted to sacrifice public interests to those of the shareholders of the Bank
>
> (Marshall, 1922: 8)

The presence of common national financial and money markets within the country also contributes to the internal monetary and financial unification of the nation considered. It provides a space for firms eager to finance their investments. Obviously, the contents of the working of these markets may vary according to the institutional devices defined for each different country. In **Industry and Trade**, Marshall dedicated substantial developments to what he considered to be national « banking systems » (Marshall, 1923: 858). He especially

dedicated the whole chapter IX of Book II to what he called the « financial basis » of « business organization », providing the reader with a comparative study of the performances of British, German and North-American Banks. He attributed to the banking systems and institutions of the various countries considered the role of adapting industry and trade « to the enlarged financial requirements of the modern age » (Marshall, 1923: 347-349).
Finally, we should also refer to the existence of national statistics Institutes. The existence of monetary and financial statistics is one of the most important basis for policy-making and individual decision-taking. This is why national independent institutes are necessary and help the state or its Finance Ministry to define economic and monetary policies.

When we consider institutions from a dynamic standpoint, several schemes devoted to the explanation of the interaction between their change and economic evolution can be retraced in Marshall's works, often implying the notions of self-organisation and cumulative causation (see Arena, 2002). We will only consider there more in detail the notion of institutional inertia. Institutional inertia is reflected by the role played by conventions customs or institutions in the determination of individual behaviours:

> the present never reproduces the past: even stagnant people gradually modify their habits and their industrial techniques. But the past lives on for ages after it has been lost for memory ; and the most progressive peoples retain much of the substance of earlier habits of associated action, industry or trade ; even when the forms of those habits have been so changed under new conditions, that they are no longer represented by their old names
>
> (Marshall, 1923: 6).

The role of custom is ambivalent according to Marshall. On the one hand, custom might undoubtedly be a brake for economic progress. Yet, as Reisman (1986) stressed it, economic change might be slower because of tradition but customs are not rigid. They change according to the evolution of economic constraints. We could invoke here a quotation of Marshall taken from Reisman (1986: 344):

> Human nature is never absolutely rigid ; and custom never holds its own opposition to a strong active economic force working for many generations persistently in the same direction
>
> (A. and M. Marshall, 1881: vii).

On the other hand, as Marshall also wrote,

> the greater part of custom is doubtless but a crystallized form of oppression and suppression. But a body of custom which did nothing but grind down the weak could not long survive. For the strong rest on the support of the weak, their own strength cannot sustain item without that support ; and if they organize social arrangements which burden the weak wantonly and beyond measure, they thereby destroy themselves. Consequently every body of custom that endures, contains provisions that protect the weak from the most reckless forms of injury
>
> (Marshall, 1916: 725-726).

Paradoxically however, the slowness of cultural evolution and the protective aspect of customs combine to generate **institutional inertia**. Inertia however cannot prevent gradual but irreversible change towards more knowledge and more modern economic rationality:

> Violence is required for keeping broad forces in the pound of Ceteris Paribus, say, a whole generation, on the ground that they have only an indirect hearing on the question in hand. For even indirect influences may produce great effects in the course of a generation, if they happen to act cumulatively ; and it is not safe to ignore them even provisionally in a practical problem without special study
>
> (Marshall, 1925/1966: 379).

This view entails a subsequent remark. If we interpret normality in the Marshallian way, namely in relation with a specific context, it is clear that a normal state of affairs must include the prevailing social conventions, norms, customs or institutions. Economic evolution therefore appears as a succession of different economic regimes to which normal situations are associated. There are therefore *at least* as many normal situations as there are different regimes. The change of regime is never brutal in accordance with Marshall's principles of continuity but continuity is compatible with evolution and irreversibility. This interpretation is reinforced by the forms of communication, dissemination and interpretation of information:

> One of the most important of the unwritten chapters in Economics is that of the time that elapses between economic causes and their effects in consequences of the slowness with which knowledge diffuses itself
>
> (Marshall A. and Marshall M., 1881: vii)

It is clear indeed that there is a strong connection between the resistance of custom and the penetration of modern knowledge and rationality. In societies characterized by limited means of communication, custom is easily maintained and appears to be more protective. Dissemination is also a problem as the example of industrial districts positively confirms it. In the absence of an "industrial atmosphere", positive externalities are more scarce and social

interaction more limited. Pockets of relative ignorance and archaic common sense remain during a longer period. At last, information is not knowledge. Knowledge presupposes the interpretation of information and its incorporation in the structure of men's mind. Now, if minds are not prepared to an open and progressive interpretation of information, informative inputs can be completely useless and exert no influence on the existence of customs, even if these appear to be a brake to social and economic evolution.

Schumpeter, forms of organization and institutions

Entrepreneurship is undoubtfully a fundamental institution for Schumpeter. We already mentioned it (for a more detailed analysis, see Arena and Romani, 2002). It gives an excellent example of the relation that Schumpeter established between history, economic sociology and economic theory in shaping his approach to institutional change. In this context, the existence of both a specific social structure and the social phenomenon of leadership play a fundamental role.

The existence of a social structure can best be described as the organisation of society in social groups to which individuals belong or aspire to belong. This, in turn, influences, for example, the way in which they make their choices:

> [I]t is society that shapes the particular desires we observe; […] wants must be taken with reference to the group which the individual thinks of when deciding his course of action – the family or any other group, smaller or larger than the family; […] the field of individual choice is always, though in very different ways and to very different degrees, fenced in by social habits or conventions and the like […].
>
> (Schumpeter (1912/1934: 91)

This social structure also provides the social framework within which institutional changes are embedded. A good example of the way in which Schumpeter employs this framework is provided by his analysis of what happens when the 'New Men' become entrepreneurs. On the one hand, certain institutions must already exist as a matter of 'logical priority' (Schumpeter 1939: 114) to render the emergence of the entrepreneur feasible. Thus, the existence of a banking system based on credit allows entrepreneurs to employ new means of production without these having to be transferred *a priori* from existing industries to innovative ones (ibid.: 114). On the other hand, these institutions are not simply forms of social organisation.

They also take the form of new behavioural rules, what Schumpeter called 'the attitudes of the public mind' (Schumpeter 1950: 135).

The social phenomenon of leadership, too, is instrumental in providing an explanation of institutional change. Social leadership based on 'energetic' effort is, in fact, the main source of such change:

> Certain other things, such as, for example, the element of 'effort', could perhaps be even more useful for an 'energetic' theory of economics that would have something to say about economic development. Moreover, changes in human nature, social organisation, etc., often have economic causes. Finally, even a development that cannot be explained in economic terms often has economic consequences so that we might well have *something* to contribute to its clarification.
>
> (Schumpeter 1908: 621).

Here, Schumpeter highlights a major characteristic of leaders' behaviour. Leaders do not follow the logic of prevailing rules, namely minimising their efforts in order to reach a given objective. Quite the contrary, they invent new rules to reach new objectives. This invention – or, more precisely, this 'innovation' – requires effort. Leaders are able to produce this effort because they possess an excess of energy that is obviously useless when individual behaviour relies on routines and is purely 'hedonistic'. The success of an innovation does not, however, depend on its intrinsic characteristics but on it being accepted by the community of followers or imitators. This process is based on self-organisation and self-reinforcement, and can be found already in Menger as well as in Wieser. It is based on the phenomenon of social imitation, which is why Schumpeter considers that its analysis falls within the realm of economic sociology. As already noted, economic sociology plays here the role of a conceptual 'bridge' between history and economic theory. For instance, when defining the function of the entrepreneur in **Business Cycles**, Schumpeter writes:

> For actions which consist in carrying out innovations we reserve the term Enterprise; the individuals who carry them out we call Entrepreneurs. This terminological decision is based on a historical fact and a theoretical proposition, namely, that carrying out innovations is the only function which is fundamental in history and essential in theory to the type usually designated by that term.
>
> (Schumpeter 1939: 102)

And later, to explain that entrepreneurs' 'genealogies display most varied origins', he asserts that 'economic theory and sociology should combine to account for their institutional patterns' (ibid.: 104).

At a given point of historical time, leaders introduce new institutions that are more adequate to new objectives and followers accept them (or not), thereby turning them (or not) into innovations. This self-organising process is of great general importance to Schumpeter's explanation of institutional change. Hence, the emergence of entrepreneurs as well as of large firms is essentially described as the result of leadership. Moreover, the explanation extends to banks that are simply a 'new kind of firm': 'They are nothing but establishments for the manufacture of means of payment' (112). Thus, for Schumpeter, banks, like firms, appear to be, at least partialy, the result of a process of self-organisation.

Banks, however, are not only firms. They also support the second fundamental institution to be found in market economies, namely **money and credit**. To carry out new technical combinations firms must indeed invest, and this investment must, in turn, be financed:

> Another [problem] exists for us: the problem of detaching productive means (already employed somewhere) from the circular flow and allotting them to new combinations. This is done by credit, by means of which one who wishes to carry out new combinations outbids the producers in the circular flow in the market for the required means of production. And although the meaning and object of this process lies in a movement of goods from their old towards new employments, it cannot be described entirely in terms of goods without overlooking something essential, which happens in the sphere of money and credit and upon which depends the explanation of important phenomena in the capitalist form of economic organisation, in contrast to other types.
>
> (Schumpeter (1912/1934: 71)

According to Schumpeter, money is an institutional device and a logical prerequisite of the market economy. This is why Schumpeter was so insistent on the idea that money could not be seen as a particular good or commodity. Instead, 'the monetary circulation is, in its nature and main function in the market economy […] nothing but a [social] clearing system' (Schumpeter 1917-18, 1956: 155). This does not mean, however, that money is a creation of the state or of law as, for instance, Knapp had argued:

> [M]oney is as little and in no other sense a creature of the law than is any other social institution such as marriage or private property. The comparison is instructive. [...] [T]he essential nature of marriage relations explains the legal provisions which regulate them, but the legal provisions do not explain the essential nature and causes of marriage relations. Similarly, money transactions are regulated or shaped by the legal system, but as an object of regulation they retain a separate existence apart from the legal system

> itself and can be explained only by their own nature or by the inner necessities of the market economy.
>
> (Schumpeter, 1917-18/1956: 160–1).

Money is thus analysed by Schumpeter as a 'claim ticket' and 'receipt voucher' recognised by every agent in the economy as socially valuable. In this sense, Schumpeter's analysis of the existence of money provides us with another example of how he builds a 'bridge' between economic sociology and economy theory, or between money as an institution and money as the basis of income circulation.

Financial markets are another important institution of capitalist economies. As we know, Schumpeter did not consider financial markets as fundamentally speculative. For him, they participated, together with banks, in the process of transforming the financing of innovation into more permanent funding. Thus, Schumpeter did not ascribe to financial markets the role that Keynes assigned to them. According to Schumpeter, financial markets are neither as autonomous nor as predominant as they are in Keynes' approach. However, they play a key role in the transformation of saving into investment. This is why Schumpeter characterises them as the 'heart, although […not…] the brain' of capitalist economies (Schumpeter, 1939: 127).

Another aspect of Schumpeter's approach to institutional change derives from the fact that such change takes time. As in Marshall, this is mainly a consequence of individual agents' resistance and propensity to routine: 'Everyone knows, of course, that to do something new is very much more difficult than to do something that belongs to the realm of routine, and that the two tasks differ qualitatively and not only in degree' (99). Schumpeter highlights three 'classes' of reasons to explain such **institutional inertia**. First, innovations often face an environment characterised by resistance. This can come in very different forms, from 'disapproval' to 'aggression' (100). Second, this environment can be well adapted to routine and is, therefore, *a priori* not prepared to welcome innovation. The third 'class' of reasons is related to the attitude of individual agents towards uncertainty: As Schumpeter notes, 'most people feel an inhibition when the possibility of treading a new path offers itself' (ibid.).
The notion of resistance to institutional change is particularly important for Schumpeter's approach to capitalist market economies. On the one hand, it explains why innovations may spread only slowly among entrepreneurs. On the other hand, it also explains the rise of large

firms: According to Schumpeter, 'Trustified Capitalism' is characterised by a tendency for entrepreneurial leadership to disappear.

> This social function is already losing importance and is bound to lose it at an accelerating rate in the future even if the economic process itself of which entrepreneurship was the prime mover went on unabated. For [...] it is much easier now than it has been in the past to do things that lie outside familiar routine – innovation itself being reduced to routine.
>
> (Schumpeter 1950: 132).

Obviously, once innovation itself is routinised, resistance to it lessens or even disappears. Institutional inertia is, however, not specific to market economies. It is present in any type of society. An example is Schumpeter's analysis of the militarisation of the ancient Egyptian society under the '"New" Empire'. It pointed out how an external event – the war of liberation from the Hyksos – led to the emergence of a class of professional soldiers. However, having come into existence, this class contributed to the emergence and maintenance of a new social and political organisation based on the centralisation of power under a military aristocracy. As Schumpeter noted, '*created by wars that required it, the machine now created the wars it required*' (Schumpeter 1919[1951]: 33, emphasis in the original). Taken together, these characteristics of Schumpeter's conception of institutional change permit to find substantial analogies with the approach of Marshall.

The purpose of economic sociology is not only to define the main institutional patterns of capitalism but also to analyse its prevailing **forms of organisation.** A very good example is provided by the Schumpeterian approach to firms and competition. For Schumpeter, the analysis of market forms is an objective not only of economic theory but also of the 'science of organization' and, therefore, of economic sociology. This, of course, explains why the analysis of the evolution of forms of productive organisation received such considerable attention in his writings, be it in the context of his discussion of entrepreneurship, of capitalism's tendency to 'trustification', or of their respective impact on innovations. From this point of view, a significant example of Schumpeter's approach is contained in **Business Cycles**. Chapter 3 of the first volume (Schumpeter 1939: 72–123) is devoted to the analysis of 'how the economic system generates evolution'. In this chapter, Schumpeter formulates his 'theory of innovation' (87–102). Apart from defining the notion of innovation, this theory of innovation – containing the essence of what Schumpeter calls 'the sociology of industrial

society' – explains the emergence of innovations (96). Far from explaining innovations in terms of some kind of stochastic process or as the result of a purely economic transition from old to new production functions, Schumpeter locates them in economic sociology. This is precisely what he means when he notes that 'innovations are always associated with the rise to leadership of New Men' (ibid.). He justifies this view by invoking a methodological argument that directly reflects his interpretation of the relation between economic theory and economic sociology:

> The main reason for introducing this assumption [the assumption of the relation between 'innovations' and 'New Men'] into a purely economic argument not primarily concerned with the structure of society is that it provides the rationale for the preceding assumption.
>
> (Schumpeter 1939: 96)

More precisely, the emergence of entrepreneurs or the transition from 'competitive' to 'trustified capitalism' is described as a change in the forms of organisation. This change is the result of the emergence of new men or new leaders who, through their innovative activity, generate 'a process subject to institutional change'. Changes in the forms of organisation are therefore primarily sociological rather than economic in nature. Entrepreneurs are the new leaders who replace the owners in the circular and, in particular, old leaders. At some point in historical time and as the result of organisational change, the managers of giant firms become the 'new' leaders, replacing individual entrepreneurs who have become 'old' leader-types. Here again, the sociological distinction between leaders and followers appears to be the key to organisational transformations.

Marshall's and Schumpeter's approaches to institutions and forms of organisation sensibly differ. For instance, Marshall analyses the economic consequences of institutional change focusing on the factors which directly affect 'fundamentals': variation of consumers tastes and motives, variation of particular social strata, variation of 'mankind', organisational and technological change, impact of education, diffusion of technical progress,….Schumpeter prefers to stress the role of social leadership and its main impact on technical, cultural and social innovations. However, both authors give a fundamental role to institutions (national States, entrepreneurship and monetary and financial institutions especially) and to organisational forms (particularly in relation to firms and markets) in the explanation of

economic change. Moreover, they share the idea that reasoned history especially matters when dynamics is introduced and pure economic theory becomes unsufficient.

2. CONCLUSIVE REMARKS

Our contribution never pretended that Alfred Marshall and Joseph Schumpeter shared the same conception of the relations between economics and sociology, defined institutions and forms of organisation according to identical concepts and criteria and developed a common dynamic theory. What we pretended is that both authors offered developments which converge on several analytical points of agreement which permit to build the foundations of a research program which is in clear contrast with the axiomatic tendencies of many modern contributions. Let us now sum up the main points of agreement.

(i) Marshall and Schumpeter never denied the importance and utility of formal economic theory. However, they argued that its scope was much more limited than it was pretended since the Marginal Revolution. To put it briefly, economic theory is sufficient within statics but unsufficient within dynamics.

(ii) Marshall and Schumpeter argued that, within dynamics, it was impossible to understand the real world with the help of the sole economic theory or oft the sole economic history. Economic theory and history must necessarily be complementary. Cooperation between both disciplines has to be helped by a third one. This discipline is called ‘social science’ or ‘reasoned history’ by Marshall and ‘economic sociology ‘ by Schumpeter.

(iii) Marshall and Schumpeter shared common ideas concerning institutions and forms of organisation. They both limited their investigation of social organisation to firms and markets. They agreed to consider that the prominent institutions of market economies were entrepreneurship, monetary and financial institutions and market institutions.

(iv) Marshall and Schumpeter assimilated long-run economic dynamics to structural change. This is consistent with the view that “fundamentals” are affected permanently and exert permanent economic effects.

(v) Marshall and Schumpeter considered that the usual selfishness assumption of economic theory is not necessarily the right one. They admitted that, within dynamics, other types of rationality might emerge and require the use of history and sociology.

These points of agreement allow the definition of the foundations of a research program which would seriously be in contrast with the usual assumptions of the modern axiomatic

approaches. This is why Marshall's and Schumpeter's ideas are still alive and useful for modern economists interested by the revival of an economic analysis embedded in social science.

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