

THE ROLE OF INSTITUTIONS IN JEVONS'S ECONOMICS*

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This paper examines the role of institutions in Jevons's political economy by confronting his ideas with T.E. Cliffe Leslie's methodological proposals. Jevons discusses institutions in his practical economic writings (on trade unions, banks, libraries and many other topics), but in his *Theory* several instances of institutions can be found as well: his description of a market, the embedding of his average individuals (character) and their behaviour, and 'impediments' of exchange. At first sight this is just a discussion of institutions that disturb abstract theory, but Jevons's use of the concept of 'character' shows a concern for the role of norms, habits and rules in economic decision-making. He does not however try to explain these institutions, but takes them for granted, and studies practical ways to alter them. This explains why his reflections on the role of institutions are not fully integrated with his theoretical writings.

1. The Role of Institutions in Jevons's Economics

1.1. Introduction

The methodological differences between T.E. Cliffe Leslie and W. Stanley Jevons seem to be very important: whereas Leslie is generally referred to as a member of the historical school(s), Jevons is depicted as a mathematical and deductive economist that does not take institutions into account. However, their opinions are not diametrically opposed. Both Leslie and Jevons consider induction, deduction and historical surveys to be a legitimate part of economic inquiry, but they emphasise different aspects. Jevons argues that Leslie's considerations are legitimate, but they belong to 'economic sociology' that should be distinguished from 'political economy', a much narrower field. Subdivision is important, as economics consists of different branches that give rise to various sciences. According to Jevons all economic branches

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must be pervaded by the mechanics of self-interest and utility, whereas Leslie argues that inductive historical investigation must come first. At first sight this seems to imply that all institutions have been omitted in Jevons's work. This paper would like to show however that Jevons does still take institutional considerations into account, especially in his applied but also in his theoretical economic work. The first paragraph will confront Jevons's and Leslie's opinions on economic methodology. The second paragraph will investigate Jevons's discussion of markets and their 'institutional embedding'. The third paragraph will examine attitudes and behaviour of economic agents in Jevons's theoretical and applied economic work. The final paragraph shows that Jevons is especially interested in institutions that increase education and morality among the labouring classes. We conclude that Jevons's point of departure prevents him from developing a theory of institutions (a direction hinted at in Leslie's writings). In his theoretical work, institutions are deviations from general principles that should therefore be taken seriously, although they do not alter those general principles themselves. In his practical work, the primary concern is to change existing institutions in order to increase rationality and morality.

2. T.E. Cliffe Leslie and W.S. Jevons on Economic Method

T.E. Cliffe Leslie (1876) argues that political economy does not throw any light on the nature of wealth, and that the "desire of wealth" cannot be depicted as the mental principle leading to production and accumulation. There is a multitude of different kinds of wealth, and wealth undergoes great changes in kind in different stages of society. Those different kinds of wealth (such as land, arms, corn, books, etc.) differ widely in their economic effects. Cliffe Leslie refers explicitly to intoxicating drink as a kind of wealth (which clearly has specific 'economic effects'). But the argument about the evolution of 'wealth' in the course of history is even more elaborate. Leslie cites the example of a traditional religious ceremony in Turkey, where all wealth of the community was concentrated on the bodies of a child and a horse, and argues that in many traditional societies much more attention was paid to men's dresses and jewels than to women's. "The definition already referred to, that wealth comprehends all things which possess exchangeable value, is a mere abstraction throwing no light on these differences and mutations, or on the laws of society and social evolution by which they are governed" (Leslie 1876, 2). The criticism regarding the "desire of wealth", which is supposed to increase wealth, sounds similar. "The desire of wealth is a general name for a great variety of wants, desires and sentiments, widely differing in their

economical character and effect, undergoing fundamental changes in some respect, while preserving an historical continuity in others" (Leslie 1876, 3). The real motives are the wants and desires of consumers, and their demand then determines what commodities producers will supply. Cliffe Leslie admits that there exists a desire to accumulate where no immediate or particular usage is intended, but the concrete form of this desire differs widely among different stages of society. Those ill-formed conceptions of 'wealth' prevent political economists from developing clear notions about the conditions governing the amount of wealth. The desire of wealth can give rise to activities such as war, piracy and fraud, which can hardly be seen as incentives to production and accumulation. On the other hand, products that are generally seen to be harmful (such as alcohol and tobacco) are important inducements to many labourers. The idea that wealth is increased by productive and diminished by unproductive expenditure is therefore mistaken. Some kinds of productive consumption can even be seen as forms of accumulation (e.g., accumulation of furniture or cloths in early modern times). Leslie advances two questions that remain unanswered by political economy: "To what kinds of wealth, what modes of acquisition, and what actual uses do they lead in different states of society, and under different institutions, and other surrounding conditions? To what laws of social evolution are they subject in the foregoing respect?" (Leslie 1876, 5). Leslie's basic idea is therefore that 'wealth' and 'desire of wealth' are far too general and that a systematic classification and examination of all different kinds of wealth and desires is required. He concludes that the deductive method is unable to explain the causes that regulate the nature and the amount of wealth.

In the "Preface" to the second edition of *The Theory of Political Economy* ([1981] 1879) Jevons holds that "there must arise a science of the development of economic forms and relations". This should be a branch of Spencer's sociology (instead of a "congeries of miscellaneous disconnected facts"). Jevons's views about this "development of economic forms and relations" are clarified in a paragraph about the life cycle of human institutions, to be found in *Methods of Social Reform*. "A HUMAN institution has, like man, its seven ages. In its infancy, unknown and unnoticed, it excites in youth some interest and surprise. Advancing towards manhood, everyone is forward in praising its usefulness. As it grows up and becomes established, the popular tone begins to change. Some people are unavoidably offended or actually injured by a new institution, and as it grows older and more powerful, these people become more numerous. In proportion to the success of an undertaking, will be the difficulties and jealousies which are encountered. It becomes the interest of certain persons to find out the weak points of the system, and turn them to their private advantage. Thus the institution reaches its critical age, which, safely surmounted,

it progresses through a prosperous middle life to a venerable old age of infirmities and abuses, dying out in the form of a mere survival” (Jevons [1883] 1965, 82). Jevons’s views about institutions are thus rather compatible with Leslie’s ideas. In the *Theory* he therefore expresses his admiration for Leslie’s article, but at the same time he criticises Leslie’s exaggerated refutation of the deductive method. “As I have previously explained, the present chaotic state of Economics arises from the confusing together of several branches of knowledge. Subdivision is the remedy. We must distinguish the empirical element from the abstract theory, from the applied theory, and from the more detailed art of finance and administration. Thus will arise various sciences, such as commercial statistics, the mathematical theory of economics, systematic and descriptive economics, economic sociology, and fiscal science [...]. The manner may be theoretical, empirical, historical, or practical [...] But as all the physical sciences have their basis more or less obviously in the general principles of mechanics, so all branches and divisions of economic science must be pervaded by certain general principles. It is to the investigation of such principles – to the tracing out of the mechanics of self-interest and utility, that this essay has been devoted. The establishment of such a theory is a necessary preliminary to any definitive drafting of the superstructure of the aggregate sciences” (Jevons [1981] 1879, xvi-xviii).

In his review of this second edition of the *Theory*, Leslie emphasises that his ideas about political economy as a science are not different from Jevons’s. After all, both authors dislike Ricardian economics and highlight the role of human wants and demand. Leslie acknowledges that Jevons is not opposed to historical and inductive investigations of economic phenomena, but Jevons would describe this approach as ‘economic sociology’ and restrict the term ‘political economy’ to a much narrower field. Leslie argues that he is not opposed to the deductive method: he is only opposed to Ricardo’s use of the deductive method, as he starts from ‘unverified assumptions’ regarding natural values, wages and profits. However, Leslie holds that historical and inductive surveys are really required. He also views “long trains of deduction with suspicion”. Leslie is rather critical to Jevons’s emphasis on mathematics: he argues that not everything can be quantified and that numerous possible influences prevent the establishment of stable relationships between economic variables. It is clear that Leslie sees the transition from the erroneous labour theory of value to Jevons’s utility theory as an important progress, but he still maintains that “wide historical investigation must precede the construction of the true story”.

The methodological difference between both authors is clear at this point. Whereas Jevons maintains that all economic branches must be pervaded by the general principles of the mechanics of self-interest and utility, Leslie argues that inductive historical investigation

must come first. What remains unclear, is precisely *how* all economic branches must be pervaded by Jevons's general principles and in what sense those principles are used in the *Theory* itself. In this paper we would like to show that Jevons does take 'institutional considerations' into account when he tries to apply the mechanics of self-interest and utility to concrete cases (especially in his applied economic work), but also when he explains and illustrates those principles in the *Theory* itself. In his applied work, Jevons devotes much attention to important institutions such as banks and trade unions. But we argue that traces of 'economic forms and relations' are visible in both his theoretical and applied work. It is clear that this is everything but similar to contemporary institutionalism, but no claims will be made regarding the relationship between Jevonian economics and New Institutionalism. Instead, this paper will investigate how 'institutional considerations' play a role in Jevons's economics and devote special attention to Jevons's concept of 'character'. We argue that this 'character' should be seen as an institution, since it can be described as a collection of norms, habits and attitudes that individuals share because they belong to the same specific group (class, gender or race).

3. Abstract Markets and the Role of Institutions

Jevons is often depicted as a mathematical, deductive economist that does not take the role of institutions into account. Margaret Schabas argues that Jevons tried to reduce the observable to a more fundamental material world. Market prices do not fluctuate around some natural or absolute value, but are derived directly from a series of fundamental motive forces. Jevons describes these motive forces as "the mechanics of self-interest and utility", and asserts that prices are in direct proportion to the final degrees of utility (Schabas 1990, 84-89). Markets are then depicted in the most abstract fashion, and no reference to specific economic and social institutions is made in the *Theory of Political Economy*. Schabas recognises that Jevons was not disinterested in these subjects, as is shown by his numerous publications on practical topics, but in the *Theory* "no attempt is made to specify a medium of exchange or to discuss the function of government" (Schabas 1990, 95).

It is however remarkable that the *Theory* includes a section on the definition of a market. "In Economics we may usefully adopt this term with a clear and well-defined meaning. By a market I shall mean two or more persons dealing in two or more commodities, whose stocks of those commodities and intentions of exchanging are known to all. It is also essential that the ratio of exchange between any two persons

should be known to all the others. It is only so far as this community of knowledge extends that the market extends” (Jevons [1911] 2001, 85-86). Jevons’s “theoretical conception of a perfect market” includes perfect knowledge, individuals acting from a pure regard for their own interests, and perfectly free competition. This theoretical market appears ‘more or less’ in reality, because the activities of brokers give rise to the establishment of a ‘consensus’. Jevons rises hands for the publication of appropriate statistics, as this information would certainly foster the development of perfect knowledge among the consumers. This indicates that perfect knowledge is not necessarily a prerequisite for all markets and Jevons mentions the example of a conspiracy of farmers withholding all corn from the market. A theoretical market should then be seen as an institution, which ensures that perfect knowledge is distributed among all participants at the exchange process. The interaction of brokers gives rise to the distribution of knowledge, which implies that the existence of these people in the market is a prerequisite for the market to be perfect.

We conclude that Schabas’s statement on the absence of institutions in the *Theory* is in need of some clarification. Jevons elaborates on an important institution, namely the market. Although it is merely defined as a non-institution (the absence of disturbing interference), some prerequisites are identified as well (mechanisms ensuring the diffusion of perfect knowledge). Moreover, Jevons’s concern for institutional settings in markets becomes visible in his discussion of ‘impediments of exchange’. Here Jevons supposes that the action of exchange cannot be carried out without trouble or cost, and he includes this cost as a variable in the exchange equation (Jevons [1911] 2001, 106-108). This ‘institutional embedding’ of markets does not alter fundamentally the abstract conception of a market, but should nevertheless be taken into account. The same applies to speculation: it does not alter the laws of supply and demand, but complicate thoroughly the expected outcome. But this does not imply that we can simply neglect speculation, as “the operation of law even among the most perplexing complications and apparent interruptions” should be studied if we really want a science of economics (Jevons [1911] 2001, 111). Another place in the *Theory* at which markets are not simply taken for granted is Jevons’s discussion of bargaining: in reality, the motives and attitudes of the trading bodies influence the outcome thoroughly. Jevons mentions unequal amounts of knowledge among the trading bodies, their disposition and force of character, their comparative persistency, their experience in business, etc. (Jevons [1911] 2001, 124-125). Although it can be argued that Jevons’s definition of a market is very vague (Hodgson 1988, 172-176), the *Theory* shows at least some concern for the conditions and institutional settings under which this somewhat taken for granted medium of exchange would fail to appear in practice. The market as such is depicted as an abstract ideal, and institutions may

lead to deviations from this ideal.² We conclude that Jevons devotes at least some attention to the institutional setting of markets.

4. Economic Agents, Attitudes and Behaviour in Theory and Practice

Markets are the medium of exchange and therefore the environment where the ‘mechanics of self-interest and utility’ can be observed. Since most economic phenomena result from the aggregate influence of a number of people, Jevons introduces the notion of a ‘trading body’. The principles of exchange remain true anyway, because the fulfilment of the law in the case of the aggregate depends upon the fulfilment of law in the individuals. While individual tastes can change suddenly, “the aggregate, or what is the same, the average consumption, of a large community will be found to vary continuously or nearly so”. Jevons recognises that aggregate laws never represent exactly the conduct of a concrete individual, but in the average or ‘fictitious mean’ these individual aspirations ‘balance’ (Mosselmans 1998). He argues that “the movements of trade and industry depend upon averages and aggregates, not upon the whims of individuals” (Jevons [1911] 2001, 88-90). Jevons’s *Theory* is filled with ‘average individuals’ of this kind. If the behaviour of these individuals does not counteract the diffusion of perfect knowledge (like in the conspiracy of the farmers), then the perfect market will appear more or less in reality. The result is Jevons’s ‘Law of Indifference’: in the same market and at any one moment, there cannot be two prices for the same article (Jevons [1911] 2001, 91). Jevons’s notions regarding averages and aggregates, which he derived from the Belgian statistician Adolphe Quetelet (Mosselmans 2002), also sheds some light on the status of the ‘mechanics of self-interest and utility’ in relation to the theory-practice distinction. Peart (1995) argues convincingly that the “theory-practice distinction loses potency” in Jevons’s work. Disturbing causes can be neglected when aggregates of individuals are at stake, as the ‘deviations’ would cancel each other

2. A similar attitude is visible in Jevons’s discussion of credit institutions. PEART (1996a, 58) points to the importance of credit institutions in Jevons’s theory of the business cycle. Credit institutions are important for the cycle because countries with institutions which give long credits suffer more from crises than other countries do. There appears to be an annual cycle in the demand for money, with large withdrawals in the month of October. Jevons argues that the system of restricted issuing, as expressed in the Bank Acts of 1844 and 1845, is perfectly able to meet the problems caused by the annual cycle. The Bank of England has to discriminate between usual and abnormal fluctuations and can take precautions beforehand. The Bank Act excludes only illegitimate expansion of the note currency, but preparations due to normal changes are allowed. Jevons therefore condemns the advocates of inconvertible currency or unrestricted issuing, because these systems would only enlarge the effects of the cycle and cause a general panic among the public (JEVONS [1884] 1909, 151-174).

out. The “mechanics of self-interest and utility” become visible when studying large groups of individuals.

Whereas Cliffe Leslie emphasises that “desires of wealth” differ widely among different (stages) of civilisation(s), Jevons seems to maintain that the “mechanics of self-interest and utility” must be present in all instances. However, the *Theory* contains some statements that indicate that Jevons’s conception of economic agents does take institutional settings into account. The ability to anticipate future feelings, and thus to discount future utility, varies according to certain circumstances, as there are “the intellectual standing of the race, or the character of the individual” (Jevons [1911] 2001, 34). The ability of foresight depends on the state of civilisation: the class or race with the most foresight will work most for the future, because a powerful feeling for the future is the main incentive to industry and saving (Jevons [1911] 2001, 35). Moreover, even the ‘quality’ of tastes increases with every improvement of civilisation (Jevons [1911] 2001, 40). Jevons’s conception of an economic agent should therefore be altered according to the institutional setting in which the agent appears (in this case, the class or race to which the individual belongs). We argue that this conception of ‘character’ should be seen as an institution, as it can be seen as a collection of rules, norms and attitudes that individuals derive from their membership of a certain community at a certain stage of cultural development. Michael White elaborates on Jevons’s use of the concepts of “character” (White 1994a), “gender” (White 1994b) and “race” (White 1993; 1994c). White argues that Jevons’s work was not directed to the explanation of the behaviour of specific individuals per se, unless these individuals were representative for all market participants of a certain uniform character. The science of economics deals with the lowest motives, and the *Theory* contains average individuals, which behave in the way required by the *Theory*. All economic actors do not have to behave in exactly the same way, but disturbing causes would balance and therefore the average individual may be an appropriate model for the *Theory*. The theory is however indeterminate in cases when more information is required. For example, it is unclear whether an increase in the real wage rate, proportionate to an increase in labour productivity, results in increased or reduced hours of work. More information about the ‘character’ of the person under consideration is required: whereas ‘learned professionals’ might be expected to work more severely, ‘lower class people’ might prefer idleness over labour and prefer greater ‘ease’ in the case of rising real incomes³. The

3. Moreover, the question of a reduction of working hours does not belong to the domain of economic theory as such, because a ‘higher calculus’ of pleasures and pains is needed. This discussion should include considerations about the family of the labourer, whereas the pure theory contains individuals with an exclusive attention towards their own interests (WHITE 1994a, 439-440).

'average individual' of the *Theory* is linked to class and race behaviour by 'facts' expressing the 'character' of the class or race under consideration, and the Victorian middle-class is used as a yardstick for evaluation (White 1994a).

The characteristics of race, class and gender are simply taken as matters of fact. Especially Irish labourers are said to be responsible for the higher mortality rates in several districts, because Jevons considered the Irish to be a race that would become more easily subject to drunkenness. He did not hesitate to manipulate statistics to prove his point (White 1993; 1994c). A similar picture emerges in Jevons's discussion of the reduction of working hours for women with young children⁴. His ideas on this subject are gender-biased, as he regarded the proper place of women as being in the home, and assumed that males make the labour supply decisions. Jevons concluded that women with children younger than three years should not be allowed to work, as this would only give rise to a neglect of the children, and would encourage the males to choose for idleness (White 1994b). In all these cases, the characters of labourers, Irish people or women are taken for granted, and are not in need of further explanation. Here, attitudes and behaviour of people, considered as institutional settings, are simply given as external variables (which in fact belong to the domain of moral philosophy). Generally, Jevons depicts lower class people as deviations from his economic agent in a bad sense. But at the same time Jevons argues that institutions, and especially education, may improve the 'character' of individuals. In the next section we argue that institutions may influence the attitude and behaviour of economic agents, in a positive but also in a negative sense.

5. Injurious Institutions and the Necessity of Learning

Jevons devoted several surveys to the role of trade unions in the economy, which reflects his interest in the institutional setting of labour relations. His chapter on this subject in *The State in Relation to Labour* starts with what he conceives "to be the true theory of the mechanics of production"⁵. In the simple case when all elements of production (land, machinery, certain materials and labour by muscular force and mental skill and knowledge) are all due to one person, no problem of distribution arises. In modern industry the finished product is the joint product of certain requisites belonging to several different persons.

4. Those issues have been discussed in newspapers and magazines. Several discussions have recently been reproduced in JEVONS (2002, 199-241).

5. Jevons's analysis is strongly influenced by BABBAGE's (1832) *On the Economy of Machinery and Manufactures*.

Jevons argues that all agents are free to enter or leave a certain occupation, and that nobody can demand more than what was agreed upon when entering the occupation. If someone is dissatisfied, he can leave the trade at any time. The remaining partners have to find someone else for the performance of the same task, or they have to pay the dissatisfied person a larger share of the produce. Therefore the remuneration of economic agents depends on demand and supply, on the question whether substitutes for a specific kind of land or skill can be found in the market. Jevons repeats the 'Law of Indifference' in this context: like articles must be sold at the same prices when in competition with each other in the same market (Jevons [1882; 1910] 1968, 93-96).

Jevons answers the question whether a workman can claim any property rights in his skill, like a landowner can claim property rights in land. Jevons first anticipates the human capital theory when he argues that education and training is embodied in the workman, and that he may regard this as an investment which should be repaid to him by an annuity of higher wages during his lifetime. On the other hand he states that labour "is the primary possession of every person", which implies that the comparison with land "necessarily limited and exclusive, each portion of each other portion", cannot make any sense. Except in a few cases (e.g., medical practitioners) trade monopolies are injurious for society: they privilege the few inside the monopoly, but they fail to secure the good of the people outside (Jevons [1882; 1910] 1968, 101-103). Jevons does not see that this criticism may be applied to the landowner as well. Jevons's argument relies upon the observation that everybody should be able to acquire a certain skill, whereas a certain piece of land can be appropriated only by one person or by one body of persons. The focus of his objective is quite clear: by establishing entry barriers trade unions artificially limit the supply of a certain skill, and may therefore extract an additional scarcity rent that would disappear in the case of an entirely free market. "Let it be understood, then, in the clearest way, that whosoever tries to raise his own wages by preventing other persons from working at his trade, and thus makes his own kind of labour scarce, attempts to levy contributions from other people" (Jevons [1882; 1910] 1968, 106).

Monopolistic trade unions are injurious to the consumers, and therefore to working class people as well. High wages for hat-makers imply high prices for hats, payable by hat-wearers that are mostly members of the working class. Higher prices of printing books result in less diffusion of knowledge among the people. Moreover, several trades act together in the production of certain commodities. A rise of wages for the plasterers would result in less demand for houses, which would lower the wages of bricklayers or carpenters. Workmen belong to the same class, but "they are and must be competitors". Moreover, preventing the surplus labour in one trade to enter another results in a decrease of producing power. Jevons concludes that a general increase

of wages is impossible, and that monopolistic actions within one trade result in injury to the community in general and to working class people in particular (Jevons [1882; 1910] 1968, 106-109).

Jevons raises hands for heterogeneous co-operations instead, as these do not consist in making specific skills artificially scarce. A partnership binding together the interests of employer and workman should be the solution for the labour problem. The employer would advance only a subsistence wage to the labourer, enabling him and his family to survive during the period in between of manufacture and sale. After this period, the labourer would receive his share in the surplus profits, or that part "beyond the necessary charges for interest, wages of superintendence, cost of depreciation of capital, reserve to meet bad debts, and all other expenses of production for which the employer can fairly claim compensation" (Jevons [1882; 1910] 1968, 143-147)⁶. Industrial divisions should be perpendicular, not horizontal: the workman's interests should be bound up with those of his employer's. The workman will then become a shareholder of the firm (Jevons [1882; 1910] 1968, 149)⁷. We conclude that trade unions should be banned in the institutional setting of labour relations, unless they take the form of industrial co-operation. But this form of co-operation is merely a non-institution, as it would only 'institutionalise' the already present state of affairs.

In a lecture delivered to the 'Trade Unionists' Political Association, Jevons identifies three different kinds of objectives of Trade Unions: (1) acting as insurance societies in favour of the unfortunate workmen; (2) rendering factories more wholesome and safe; (3) struggling with capitalists in order to raise wages. Only the last activity is illegitimate according to Jevons, as we saw earlier. In the case of insurance activities, trade unions should be organised by combining many grades of workmen and several branches of industry, as this may reduce the amount of selfishness and raise the notion of solidarity instead. Even more important is the second activity, because a single workman is mostly unable to enforce concessions from his employer concerning the labour conditions. Workmen should unite in order to force employers to adopt policy measures that improve the safety, but also to reduce the working hours – and this especially regarding their children and wives (Jevons [1883] 1965, 105-110)⁸. In this sense trade unions

6. The industrial partnership should first of all ensure that the employer receives the customary profit (about 10%). The excess of profits would then be shared with the workmen. There is no reason to believe that profits would fall in the case of industrial partnerships, as the workmen would be less inclined to organise strikes or engage in agitation, but would promote the success of their firm in every possible way instead (JEVONS [1883] 1965, p. 128).

7. Jevons elaborates on Industrial Partnerships in a lecture, published in *Methods of Social Reform* ([1883] 1965, 122-155).

8. It is clear that these activities would be harmful for the capitalists as well, but a struggle for higher wages would be injurious to the economy as a whole and to the labouring class in particular. It is clear that *The State in Relation to Labour* is written from a social and moral

may foster wealth, morality and intelligence, through an alteration of the attitude and the behaviour of the working class. Jevons refers explicitly to an encouragement of saving, which would lead, in the long run, to a situation where workmen “may become in a degree their own capitalists” (Jevons [1883] 1965, 120-121). We already noticed above that labourers are, due to the ‘character’ of the class to which they belong, less inclined to devote much attention to the future.

Institutions are legitimate only if they alter the human behaviour, in such a way that our precious resources would be used to improve our productive conditions. Public libraries should receive sufficient funding, because they would give rise to a reduction of poor rates and less expenditure on crime. This would not be injuring for publishers and booksellers, as public libraries function as pioneers for them. Moreover Jevons does not condemn reading literature as a distracter from practical subjects, because the alternative would be even worse: reading of vulgar works or no reading at all. Public libraries should therefore be seen as progressive institutions: they increase education and general intelligence (Jevons [1883] 1965, 32-48). The same may be said about museums, at least if there is no accidental ordering of subjects and no political influence (Jevons [1883] 1965, 58-73).

Institutions may improve habits and education of people, through the principle of ‘aping the upper class’. For instance in the case of musical performances, an entertainment may be “really fashionable and popular” only when “a royal duke or a princess [is] exhibited”. Therefore a proper method to improve habits and morality may be that higher class people visit popular performances, in order to give a good example that may be imitated by lower class people (Jevons [1883] 1965; Mosselmans and Mathijs 1999).

Bowman (1997) elaborates on the place of education in Jevons’s political economy. He argues that classical political economy relied upon Malthusian principles to account for the influence of education on economic prosperity. Education would favour moral improvement and prudential restraint, which would lead to higher wages due to a diminished supply of labour and thus a reduction of the pressure on the wages fund. Jevons, on the contrary, focused primarily on improvements of economic decision making: education would lead to more attention for the future and therefore to increased saving, and it would lead to less mistaken consumption decisions (e.g., diminished drunkenness). Moreover, both employers and labourers should be educated

point of view, and it does not choose sides in the struggle between capitalists and labourers (but denies the existence of this struggle). Everybody should receive his proper share of the produce, but the labour should take place in acceptable conditions. Insurance activities and improvements of safety are socially and morally acceptable, whereas actions devoted to an artificial increase of certain wages are not.

to see the benefits of co-operative production (see above). Jevons related education to labour productivity, and labourers are portrayed as individual decision-makers with various degrees of knowledge. Supply and demand determined the wage rate, and in the long run everyone would be rewarded in accordance with his contribution (“residual rent theory”). Education may also be necessary to let labourers cope with business cycles: they should not spend their wages on alcohol and tobacco during a boom, but increase their savings in order to be prepared for possible unemployment after the boom.

6. Conclusion

At first sight there seems to be no place for institutions in Jevons's theory. His abstract economic theory relies upon a few general principles: self-interest, maximising behaviour, perfect knowledge, etc. Markets are depicted in an abstract fashion and individuals are portrayed as mechanical entities. His practical surveys, on the contrary, show a lot of interest in institutions, and especially in his work on monetary economics much space is devoted to an investigation of bank and credit institutions and their influence on the performance of the system. But the *Theory* contains some interest for institutions as well, as the medium of exchange is discussed in the context of impediments. These impediments lead to a deviation from the general principles, and should therefore be taken into account when studying concrete markets. Jevons seems very close to Leslie's position when he argues that a science of the development of economic forms and relations is required. But at the same time he insists that all economics branches must be pervaded by the same general principles, which prevents him from developing 'economic sociology'.

This does not imply that Jevons neglects institutions in his economics. His use of the concept of 'character' shows a real concern for the role of norms, habits and rules in economic decision-making. His framework of Victorian norms leads to a class-, gender- and even racially biased analysis. At the same time Jevons devotes much attention to the alteration of the 'character', especially through education. This would lead to better consumption decisions, less drunkenness, enlarged savings, better forecasting of the effects of the business cycle, co-operative behaviour of employers and labourers, etc. Jevons does therefore not study the change of institutions (like habits or norms) in a theoretical sense, but rather practical ways to alter these institutions. Jevons's approach explains also why his reflections on the role of institutions are not integrated thoroughly with his theoretical writings. Institutions alter the manner in which the theory would be applied in specific cases, but they do not alter fundamentally the theory itself.

References

- BABBAGE, C. (1832), *On the Economy of Machinery and Manufactures*, London: Charles Knight, Pall Mall East.
- BOWMAN, R. (1997), "The Place of Education in W. S. Jevons' Political Economy", *The European Journal of the History of Economic Thought*, 4 (3), pp. 455-477.
- HODGSON, G. (1988), *Economics and Institutions. A Manifesto for a Modern Institutional Economics*, Cambridge: Polity Press.
- JEVONS, W.S. ([1879] 2001), *The Theory of Political Economy*, 2nd edn., Hampshire and New York: Macmillan-Palgrave (Writings on Economics, 2).
- ([1882; 1910] 1968), *The State in Relation to Labour*, London: Macmillan.
- ([1883] 1965), *Methods of Social Reform*, New York: Augustus M. Kelley.
- ([1884] 1909), *Investigations in Currency and Finance*, London: Macmillan.
- ([1911] 2001), *The Theory of Political Economy*, 4th edn., Hampshire and New York: Macmillan-Palgrave (Writings on Economics, 3).
- (2002), *Collected Reviews and Obituaries. Vol. 2*, Bristol: Thoemmes Press.
- LESLIE, T.E.C. (1876), "On the Philosophical Method of Political Economy", *Hermathena*, 2.
- ([1981] 1879). Untitled Review of the 2nd Edition of Jevons's *The Theory of Political Economy*, in: R.D.C. Black (ed.), *Papers and Correspondence of William Stanley Jevons Vol. VII*, London & Basingstoke: Macmillan, pp. 157-162.
- MOSSELMANS, B. (1998), "William Stanley Jevons and the Extent of Meaning in Logic and Economics", *History and Philosophy of Logic*, 19, pp. 83-99.
- (2002), "Adolphe Quetelet, the Average Man and the Development of Economic Methodology", working paper.
- MOSSELMANS, B. and MATHIJS, E. (1999), "Jevons's Music Manuscript and the Political Economy of Music", *History of Political Economy*, 31, Supplement *Economic Engagements with Art*, pp. 121-156.
- PEART, S. (1995), "Disturbing Causes, Noxious Errors, and the Theory-Practice Distinction in the Economics of J.S. Mill and W.S. Jevons", *Canadian Journal of Economics*, 27 (4), 1195-1211.
- (1996a), *The Economics of William Stanley Jevons*, London: Routledge.
- (1996b), "Ignorant Speculation and Immoral Risks: Macheaths, Turpins and the Commercial Classes in Nineteenth-Century Theories of Economic Fluctuations", *The Manchester School* 64 (2), pp. 135-152.
- SCHABAS, M. (1990), *A World Ruled by Number. William Stanley Jevons and the Rise of Mathematical Economics*. Princeton: Princeton University Press.
- WHITE, M.V. (1993), "The 'Irish Factor' in Jevons's Statistics: a Note", *History of Economics Review*, 19, pp. 79-85.
- (1994a), "Bridging the Natural and the Social: Science and Character in Jevons's Political Economy", *Economic Inquiry*, 32, pp. 429-444.
- (1994b), "Following Strange Gods: Women in Jevons's Political Economy", in: P. Groenewegen (ed.), *Feminism and Political Economy in Victorian England*, Aldershot: Edward Elgar, pp. 46-78.
- (1994c), "A Five Per Cent Racist? Rejoinder to Professor Hutchison", *History of Economics Review*, 21, pp. 71-86.