## Bentham and the Idea of Maximisation

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Jeremy Bentham, whose writings concern mostly law and ethics, is mainly known by economists for having directly influenced Stanley Jevons and other marginalist economists with his suggestion to measure units of pleasures. Indeed, in the Preface of his second edition of 1879<sup>1</sup>, Jevons acknowledges that he adopted "Bentham's idea" as "the starting point" of his own theory. This acknowledgment was clearly appropriate since in his Preface to the first edition, Jevons emphasises his distance from most economists of the classical period, given his attempt "to treat Economy as a Calculus of Pleasure and Pain." This was exactly what Bentham explicitly did in order to develop his ethical theory without, however, bothering himself with the economical theory that can be associated with this view.

Accordingly, in his second chapter, Jevons adopts Bentham's first four dimensions of pleasure (intensity, duration, certainty and propinquity).

However, if Jevons has clearly found in this analysis the starting point from which he developed his economic theory based on utility measurement, Bentham's psychological dimensions of pleasures were quickly forgotten by economists (before being indirectly revisited by recent behavioural economics). As for the notion of utility as such that Jevons opposed to the classical notion of cost of production as the source of value, it was not really Bentham's innovation, since different economists had, much earlier and in a much more

<sup>&</sup>lt;sup>1</sup> Jevons, Stanley, *The Theory of Political Economy*, New York, A. M. Kelley reprint of the fifth edition, 1965; first edition, 1871; Second edition, 1879. The quoted passage is on p. xxvi. <sup>2</sup> *Ibid.* p. vi.

economical context, emphasised the fact that value can be based on utility. This is clearly the case with Condillac who published his economic work entitled «Le commerce et le gouvernement considérés relativement l'un à l'autre » in 1776, the very year of publication of Smith's *Wealth of Nation* and a few years before the first publication of Bentham's major work on the matter<sup>3</sup>. In this book, Condillac declared emphatically "The value of things is therefore based on their utility." <sup>4</sup> A few years before Condillac and Bentham, other economists defended similar views. Thus, other economists as well as Bentham had anticipated the utility theory of value that later came to be maintained by marginalist economists. In fact, it was the psychological rendering of this ethical theory that inspired Jevons, but only as a starting point for his own economic theory. In this context, it is difficult to claim that Bentham's views were determinant for the development of economic theory *on these grounds*.

What has been much more determinant for the destiny of economics in the Benthamian heritage was naturally the fact that pleasure was treated as a summation of discrete units which can be added and consequently compared and maximised, an approach that was adopted by Jevons about utility. I am aware that underscoring the importance of the concept of maximisation in Bentham's thought is far from being an original contribution. Terence Hutchison, for example, claimed in his quite interesting paper on Bentham's

<sup>&</sup>lt;sup>3</sup> Bentham, Jeremy (1780), *An Introduction to the Principles of Morals and Legislation*, J. H. Burns and H. L. A. Hart editors, Oxford, Clarendon Press, 1996.

<sup>&</sup>lt;sup>4</sup> Free translation of "La valeur des choses est donc fondée sur leur utilité", Condillac, Le commerce et le gouvernement considérés relativement l'un à l'un à l'autre » in *Œuvres philosophiques de Condillac*. (Texte établi et présenté par Georges Le Roy), Paris : PUF, vol. 2, p. 245.

economics that the concepts of maximisation and utility are two well-known contributions of this thinker to economic thought and he recalled that these concepts would ultimately be developed later by Jevons and Edgeworth<sup>5</sup>. After all, Bentham refers so frequently either to maximisation or to equivalent notions that it would be difficult to deny such a claim. However, what is more important is the fact that Bentham so frequently presents maximisation as the only <u>rational</u> solution to problems in such a way that he almost identify rationality and maximisation. Therefore what I propose is a brief analysis of (1) the role and the meaning of the notion of maximisation in various parts of Bentham's thought, (2) the reasons why he was conduced to give the concept of maximisation such an important place in his thought and (3) the way that maximisation was directly associated with the concept of rationality, a concept that has come to play such a fundamental role in economic analysis.

First, it is important to note that the most significant contributions to economic thought that were developed by various economists before and, much more significantly, during the half-century that followed Bentham's main publications, almost never invoke the concept of maximisation. Adam Smith in particular, who was frequently criticised by Bentham on different grounds, explains many phenomena without the help of maximisation. For Smith, the point was not to determine a maximum amount of revenue or of profit or even the maximum amount of satisfaction to be reached. Rather, Smith's goal was to explain, by referring to the choices that people make in typical economic circumstances, why these

<sup>&</sup>lt;sup>5</sup> P. 290 in Hutchison, Terence W., « Bentham as an Economist », The Economic Journal, 66, 1956, pp. 288-306.

choices, taken together, generate a relatively stable economy. It is nonetheless true that Smith's explanations assume that people are rational. However, the rational people involved in these various choices do not maximise anything. In order to explain the relative stability of market prices, Smith does not suppose that people are maximisers; he simply postulates that they are wise enough to draw their resources away from a market when they realize that their revenues has fallen below what he calls their "natural rates", by which he means the rate which is required to convince rational people to enter the market. We can say the same of Ricardo in spite of his commitment to explain phenomena with the help of abstract and strictly logical theories. In fact, Ricardo postulates a perfect mobility of capital but not a compulsion to maximise. Given this mobility, he simply supposes that capitalists are not silly enough to leave capital in an industry that provides a smaller profit rate than another industry, instead of progressively transferring it to the latter until the equality of profit rates is reached. Even in his theory of comparative advantages in international trade, which is possibly the one of his theories that is the most strictly guided by pure logic, Ricardo simply asserts that citizens of one country would not be tempted very long to continue producing a good themselves that they could obtain from another country by trading another good that they can produce at a smaller cost. He does not require that his economic agents compute any maximum. It is the conditions of the economic situation (perfect mobility of capital, development of rents, conditions of exchange) that are idealised in his models, but his economic agents are not greater systematic maximisers than those of Smith. So, classical economists' explanations were clearly based on the rationality principle or, if one prefers, on the idea that people are rational, but in no way on the notion of maximisation.

In contrast, it is possible to claim that Bentham's entire intellectual enterprise rests on the principle of maximisation. Bentham was much less eager to explain phenomena than to propose ethical foundations for the appropriate actions to be taken in various contexts. He was profoundly dissatisfied with the criteria, whether contract or natural rights, invoked by ethical theorists of his time, because he considered that these principles were adopted purely on an intuitive basis. According to him such intuitions are easily refuted after a rational analysis. Instead of invoking such non-testable intuitions about what is a good or a bad action, why not look at the consequences of these actions? It seems reasonable to say that actions that increase benefits for humanity are good and those that reduce such benefits or that increase pain for people are bad. However, formulated in such a vague way, this view does not really seem more rational than the intuitive approaches that Bentham criticised. There is no point in claiming that increases or decreases in utility or pleasures (terms which are more or less synonymous for Bentham) are the required criterion, if there is no way to measure utility and pleasure. Indeed, the advantage attributed to this criterion is the fact that, in contrast with those associated with social contract and natural right theories, it is deemed to be measurable. But once a measuring rod is applied to utility or pleasure in order to determine the degree of goodness or badness of any action, the crucial question is obviously who will benefit from such an action. Who will enjoy the pleasure that is supposed to be generated? Claiming that the agent might be the only benefiter would reduce the ethical theory to an unacceptable egoistic view. This did not raise a problem for Bentham, who was profoundly egalitarian, because he considered that all people have an equal right to benefit from such actions. However, since it is impossible to produce the same benefits for all human beings, this view became an ideal toward which people should tend such that the *largest* number of people (who have all the same rights to receive them) receive the *greatest* amount of benefits as is possible. Thus, the only satisfactory principle on which such an ethical criterion should be based became, as is well known, the principle of *maximisation* of happiness for the *largest* number of people.

This explains why maximisation was closely associated with ethics in Bentham's mind. Once he admitted that various dimensions of pleasures can be analysed and measured in such a way that pleasures can be identified with utility and pains identified with disutility for people, the idea of *maximising* sources of utility for society and *minimising* sources of disutility naturally follows as the rational thing to do. Short of the calculation of a maximum of happiness, justifying an action by invoking the fact that a vague increase in happiness has resulted from it remains subject to criticism on the grounds of irrationality, because the action may have also generated a lot of painful consequences for many people. Therefore a balance of pleasures and pains is necessary and the natural conclusion of such a balancing process is nothing else than a maximum point. This is surely the view that impressed Stanley Jevons who enthusiastically applied a similar scheme to economic analysis, given that the possibility to maximise an entity called utility, potentially expressed in money, allowed him to apply to economics the maximising techniques offered by calculus.

This ethical analysis of what should constitute happiness is probably the most well known part of Bentham's theory and it is the basis of his utilitarian philosophy. It is not surprising that Bentham developed such a view since, before being a theoretical principle,

maximisation was for him a kind of way of life. The liberal thinker Louis Reybaud even observed in his Études sur les réformateurs sociaux that "He had organised his days in such a way that he could do the largest possible amount of work with the least expense of health"6 Neither is it surprising that Étienne Dumont, the French Bentham's disciple who published in French a large number of his master's works before they were published in English, wrote a paper under the title "Coup d'œil sur le principe de maximisation du Bonheur" (A glimpse of the principle of maximisation of happiness) in which he exposes Bentham's thought and quotes some of his unpublished views. This text claims that Bentham readily admits that a predecessor, namely David Hartley, had the merit in his *Observations on Man* published in 1749, of correctly defining happiness. Bentham congratulates him for having shown that happiness is compounded of pleasures and for having proposed two parallel lists of pleasures and of pains, an achievement which, in our days, is usually attributed to Bentham himself. However, the latter blamed him for his failure to unify all these considerations with the help of the principle of *maximisation* of happiness<sup>7</sup>. As for the formulation of this principle in terms of the "greatest happiness for the greatest number", Bentham, according to Dumont, attributes this wording to Joseph Priestly who refers to it in his 1768 Essay on the First Principles of Government 8. Clearly, it is because such an ideal inherited from Priestly and a few others — could not made any sense without a relatively

<sup>&</sup>lt;sup>6</sup> Louis Reybaud, *Études sur les réformateurs sociaux*, t. II, p. 199: "Il avait réglé ses journées de manière à exécuter la plus grande somme possible de travail avec la moindre dépense de santé" quoted by Michelle Perrot in her Postface to a French edition of Bentham work, *Le Panoptique*, Paris, Pierre Belfond, 1977, p. 177.

<sup>&</sup>lt;sup>7</sup> p. 85 in "Coup d'œil sur le principe de maximisation du Bonheur" published in Bentham, J. *Œuvres*, tome 4, *Déontologie ou science de la morale*, Bruxelles, Louis Hauman et cie, 1834. 
<sup>8</sup> Bentham quoted by Dumont, in "Coup d'œil sur le principe de maximisation du Bonheur", in *ibidem*, p. 86

precise measure of the level of happiness involved that Bentham was forced to develop his theory of utility which implies that pleasures and pains are measurable.

However, one must keep in mind that before being a philosopher and occasionally an economist, Bentham was primarily a juridical thinker. He was very young when he completed an education in law in London and during his whole life he devoted himself to reforming juridical institutions. He was extremely concerned with the way law was administered in his time, a way of proceeding that profoundly offended his sense of justice. He denounced juridical practices on many occasions on the grounds that they were irrational. In order to succeed in the considerable enterprise of efficiently reforming these institutions, he considered, here again, that the only way to convince people to get out of the mess was to determine rationally what is the *best* possible solution, namely what provides the greatest happiness to the greatest number, which, according to him, was not only a fundamental ethical principle but the goal that a sane system of law should aim to reach. No general principle should be invoked a priori, but the law should be declared good if it produces more benefits for the largest possible number of people than the benefits that would be generated by its absence or its eventual removal. Thus, maximisation, while not being as such the fundamental concept of his theory, became nonetheless the key instrument that made it work. Once it is admitted that the maximisation of happiness is what matters, it becomes a perfectly rational solution that, according to Bentham, nobody should reject. It is in order to determine what leads to this maximum of happiness that Bentham developed his theory of how to measure, or at least to attribute a value, to each dimension of pleasure or pain. For Bentham, everything counts in the computation of

pleasures, the malevolent pleasure generated by the suffering of others as well as the envious pain caused by the pleasures of others9. Naturally, Bentham would defend his view by claiming that in such a case the suffering (or the pleasure) of the other person will count at least as much in the total balance, but that only illustrate the extent to which a systematic calculation turns out to be a problem of general maximisation. However, developing a theoretical framework to measure, in principle, the degree of satisfaction by counterbalancing the various dimensions of pleasure and pain is quite different from implementing practical and efficient solutions to improve the functioning of law courts. Therefore, it is hardly surprising that Bentham's views were so frequently qualified as utopian.

There are various other sectors in which Bentham attempted to apply his compulsion to maximise, but none is probably more original and more so closely associated with his name in recent decades than his attempt to find the best solutions to the problems raised by houses of detention. By the end of 18th century and the first part of the 19th, jails and other houses of detention were the source of considerable discussion in Britain. Many decrepit and unhealthy jails needed heavy refection; various plans for new types of houses of detention were proposed and the suggestion to deport convicts to Australia was also heralded by many people. For Bentham, all of these alleged "solutions" were highly unsatisfactory and irrational. In 1786-87, during his travel to Russia to visit Samuel, his architect brother who was currently working there, he found the solution that he was

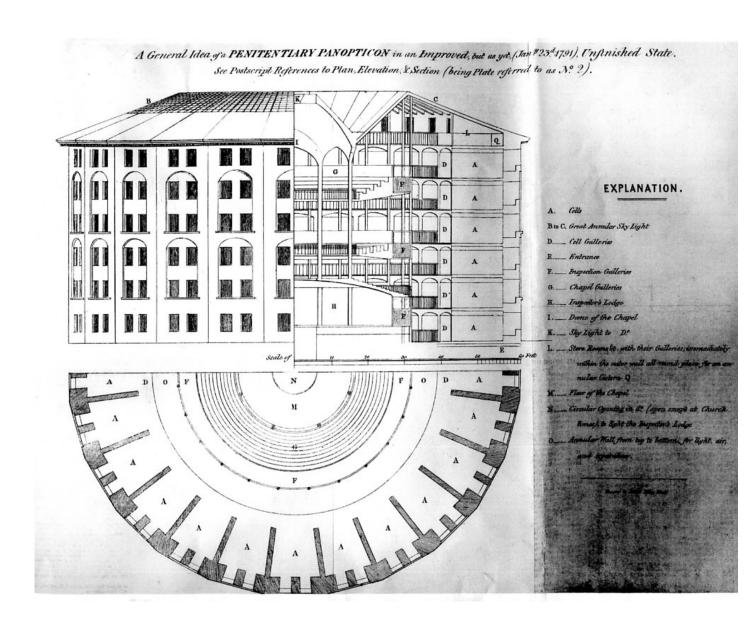
<sup>&</sup>lt;sup>9</sup> Bentham, Jeremy, An Introduction to the *Principles of Morals and Legislation*, edition Burns & Hart, Oxford, Clarendon Press, 1996, p. 44, no 11 (9) and p. 48 no 27 (8)

looking for. In his attempt to improve the control over workers who he was responsible for, Bentham's brother had designed the model of a building whose bold circular and concentric shape was chosen not so much to satisfy aesthetic considerations but rather to rationally and maximally satisfy the need to control. In a sense, most architectural projects pretend to rationally maximise utility, but with Bentham's brother scheme, the maximisation of utility is presented as the unique criterion of success, in a sense that is not unrelated to the role of maximisation in Benthamian ethics. Jeremy Bentham quickly understood that this kind of architecture could be efficiently adapted to solve the problem raised by the necessity to construct low cost prisons which should be secure for both society and prisoners and which can efficiently contribute to the rehabilitation of the latter.

In fact, the need of minimising cost was constant with Bentham who claimed that an important advantage of his plan was "that which respects the *number* of the inspectors requisite" <sup>10</sup> since he pretends that one inspector could do the job done by many in other schemes. Indeed, a single inspector at the centre of the circular structure would be in a position to control the movements of most prisoners with a single look. Thus, the main virtue of such a design for prisons was "that for the greatest proportion of time possible, each man should actually *be* under inspection" Bentham concluded that the circular form was the optimal one and the most rational solution for a prison since it is "the only one that

<sup>&</sup>lt;sup>10</sup> Bentham, Jeremy, *The Works of Jeremy Bentham, published under the Superintendance of his Executor, John Bowring*, (Edition Bowring), Edinburgh, Tait, 1838-1843; Book IV, p. 45 (Letter VI)

<sup>&</sup>lt;sup>11</sup> Bentham, Jeremy, *The Works of Jeremy Bentham, published under the Superintendance of his Executor, John Bowring*, (Edition Bowring), Edinburgh, Tait, 1838-1843; Book IV: p. 44.



Plan, elevation and section of the *Panopticon* by Jeremy Bentham: Bentham, Jeremy, *The Works of Jeremy Bentham, published under the Superintendance of his Executor, John Bowring*, (Edition Bowring), Edinburgh, Tait, 1838-1843; Book IV. affords a perfect view, and the same view, of an indefinite number of apartments of the same dimensions [...]"12. It is because an inspector could see everywhere in the prison that Bentham called this model *Panopticon*. When it comes to making sure that the persons that have to be inspected are actually inspected, or at least "conceive" themselves as being inspected, Bentham proudly claims that this "[...] cannot be compassed by any other (plan) [...]"13 Clearly for Bentham, this plan was the rational one because it maximises benefits from every point of view. In a single paragraph, he claims that this circular arrangement allows us to obtain "the greatest quantity of room", to have the centre at "the least possible distance from light", and to reduce "to the greatest possible the shortness of inspection paths." Even though he does not use calculus and curves as Jevons did almost a century later, he proceeds with practical considerations to derive an optimal point through a kind of intuitive maximisation under constraints: "As to the *whole building*, if it be too small, the circumference will not be large enough to afford a sufficient number of cells: if too large, the depth from the exterior windows will be too great; and there will not be light enough in the lodge." Therefore, he devoted many years of his life to promoting this model and heralded the idea that the same model could be used to control not only prisoners, but workers in factories, sick people in hospitals and children in schools. After all, since this particular type of architecture allows us to maximise control, there is no reason why it could not, with due adaptation, maximise control wherever control is required. In fact, Bentham was so

<sup>&</sup>lt;sup>12</sup> *Ibidem*, 1843, Book IV: 44. Incidentally, it is worthwhile to emphasise that, by the end of 18<sup>th</sup> century in France, utopian architects, including Claude-Nicolas Ledoux and Étienne-Louis Boullée, associated circular architecture with rationality. Let me also recall that those many circular barns in North America, epitomized by the famous shaker round stone barn near Pittsfield, Massachusetts, were frequently praised for the rationality of the solution they provide to problems met in cattle farming and for the maximal usable space offered in a given footprint. <sup>13</sup> *Ibidem*, 1843, Book IV: Letter I, penultimate paragraph.

enthusiastic about the fact that this scheme maximises the benefits expected from a house of detention that he, unsuccessfully, offered to occupy the job of inspector himself! 14

Oddly enough, the *Panopticon* was almost totally forgotten during many decades after Bentham's death. John Stuart Mill who was an astute connoisseur of Bentham's writings did not mention it and did not refer to this work in the paper of about sixty pages that he devoted to Bentham's thought. It is the philosopher Michel Foucault who was mostly responsible for the attention given to the *Panopticon* during the last thirty-five years. Since the publication of his book *Surveiller et punir* in 1975, an intense debate about the Panopticon and its relevance was going on in France but also in Britain and United States. One can easily understand why the philosophy of the *Panopticon* was so debatable if one considers for example that Bentham perceives the humiliation of the constantly inspected prisoners as a good and important thing. According to the arithmetic of his utilitarian views, the positive advantages of humiliation (rehabilitation possibly facilitated by regret and introspection) — especially when joined to other positive effects of this mode of detention (separation between prisoners according to their degree of culpability<sup>15</sup>, cleanliness, light, security, economy, etc.) — might be much greater than the disadvantages that are so eloquently expressed by Foucault and his followers. For Foucault, the method for controlling prisoners that is proposed in the *Panopticon* was a particularly significant illustration of the totalitarian trends that were developed during the Industrial revolution

<sup>&</sup>lt;sup>14</sup> See his letter to M. J. Ph. Garran, a member of the French Assemblée Nationale published on p. 2 of the text entitled *Panoptique* published in French at Paris in 1791, included in the French edition of Bentham work, *Le Panoptique*, Paris, Pierre Belfond, 1977.

<sup>&</sup>lt;sup>15</sup> See *Ibidem*, 1843, Book IV, Letter IV, last paragraph.

and that tended to transform men into docile machines. Bentham himself would probably have agreed on this point. In the translation of the *Panopticon* by Dumont (accepted by Bentham), we can read "A forced submission brings progressively a mechanical obedience." However, it is precisely for this reason, that Foucault associated this severe critical consideration with the acknowledgement of the rationality of this scheme. Indeed, for Foucault, the maximisation of control is illustrative of the development of a modernity that is usually characterised by its rational and strictly controlled solutions to traditional problems. Thus, this systematic maximisation of the visual control of the prisoners was closely associated with the modern notion of rationality.

If maximisation was so closely associated with rationality, one may wonder why classical economists who were Bentham's contemporaries were not eager, as Bentham was, to systematically look for a maximum, given that, as we have seen, the explanations that they provided were based on the postulated rationality of economic agents. A straightforward answer to this question is that theoreticians who want to satisfactorily explain *actual* economic and social phenomena cannot postulate that people actually do what they do in order to insure "the greatest Happiness of the greatest number". Indeed, not only do people frequently act in an egoistic fashion, but they are very poor maximisers, as is abundantly illustrated by modern behavioural economics. Following Adam Smith, most classical economists were too realistic to proceed in such a way. As we have seen, they rather tend to

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<sup>&</sup>lt;sup>16</sup> "Une soumission forcée amène peu-à-peu [sic] une obéissance machinale": p. 12 of the text entitled *Panoptique* published in French at Paris in 1791, included in the French edition of Bentham work, *Le Panoptique*, Paris, Pierre Belfond, 1977.

explain these phenomena by postulating that people are rational in the sense that they usually do not miss opportunities to make some profit and avoid important losses according to the data of the situations in which they find themselves. They do not need to make the computations required by maximisation in order to make the decisions that generate the market situations that classical economists want to explain.

In contrast, Bentham's typical analyses do not tend to explain anything. When they are not devastating criticisms of institutions, they are either normative prescriptions related to utilitarian ethics or attempts to solve practical problems. As observed by J.S. Mill about Bentham "His [mind] was an essentially practical mind. It was by practical abuses that his mind was first turned to speculation [...]"

This judgment was endorsed and amplified by Jacob Viner: "Bentham was perhaps the least original in his stock of general ideas, but clearly the most original in finding means and devices for putting his philosophy to practical use."

Indeed, if satisfactory explanations cannot rest on Bentham's attempts to determinate a maximum, problems regarding appropriate decisions to make can legitimately be solved by defining the maximisation of happiness as an ideal to contemplate. Invoking maximisation makes sense in such a context, because one may recommend having an eye on a maximum, in spite of a doubtful capacity to reach it, when the point is to normatively fix an objective and not to explain anything. Therefore, as Schumpeter said, "it was as a criterion of 'good' and 'bad' legislation that the principle of greatest happiness of

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<sup>&</sup>lt;sup>17</sup> Mill, John Stuart, «Bentham» in *Mill on Bentham and Coleridge*, Cambridge University Press, 1978 (1950, 1838), p. 44.

<sup>&</sup>lt;sup>18</sup> P. 360 in Viner, Jacob, «Bentham and J. S. Mill: The Utilitarian Background», *The American Economic Review*, Vol. 39, No. 2 (Mar., 1949), pp. 360-382.

the greatest number acquired for him [Bentham] paramount importance."<sup>19</sup> And as Viner put it, "[...] generally, if they are left to themselves, there will be serious discrepancy between the actual behavior of individuals and the behavior which would conduce to 'the greatest happiness of the greatest number.' It is the function of legislation to coerce or bribe individuals to make their behavior coincide with that required by the greatest-happiness principle, and of education and moral leaders to mould men's desires so that they spontaneously associate the happiness of others with their own happiness [...]."<sup>20</sup>

In order to efficiently determine a maximum in the complex network of pleasures (and pains), Bentham was forced to limit the scope of what he described as pleasures. In fact, this is the only point for which he was blamed by John Stuart Mill in the latter's essay on Bentham, where Mill claims that "the applicability of his systems to practice in its own proper shape will be of an exceedingly limited range." Twenty-five years later, when Mill revisited this argument in his celebrated essay entitled *Utilitarianism*, it is in a more indirect and softer way that he presented nonetheless as "absurd" a view according to which "the estimation of pleasure should be supposed to depend on quantity alone." Strictly speaking, Bentham's views are not limited to quantity, since the intensity of the pleasure is another dimension that he considers, but from Mill's point of view his whole

<sup>&</sup>lt;sup>19</sup> Schumpeter, Joseph, *History of Economic Analysis*, New York, Oxford University Press, 1954, p. 133.

<sup>&</sup>lt;sup>20</sup> P. 365 in Viner, Jacob, «Bentham and J. S. Mill: The Utilitarian Background», *The American Economic Review*, Vol. 39, No. 2 (Mar., 1949), pp. 360-382.

<sup>&</sup>lt;sup>21</sup> Mill, John Stuart, «Bentham» in *Mill on Bentham and Coleridge*, Cambridge University Press, 1978 (1950, 1838), p. 58.

<sup>&</sup>lt;sup>22</sup> Mill, John Stuart, *Utilitarianism*, Second edition (Sher edition), Indianapolis, Hackett Publishing Co, 2001 (1863), p. 8.

analysis remains quantitative by contrast with the qualitative pleasures that the author of Utilitarianism emphasises. Therefore, Mill's subtle analysis did not allow him to develop a calculus of pleasure nor an analysis based on maximisation. In contrast, it is the limited Benthamian kind of utility analysis that Jevons adopted (after simplifying it still more) in order to adapt it to the theory of a maximisation of utility associated with money. In other words, if Bentham's approach was prescriptive, whereas Smith's approach was descriptive, what Jevons did was to propose an allegedly descriptive analysis with the help of Bentham's prescriptive tools. In fact Jevons and his marginalist followers' theories, while being not descriptive, are nonetheless explanative, insofar as we translate the logical principle that it puts forward into a descriptive analysis of the situation to be explained. In any case, with the adoption by marginalist economists of the Benthamian association of rationality and maximisation, the notion of human rationality which, without saying its name, animated classical economics, disappears almost forever from the history of economic thought to make room for rationality-maximisation. In the 1940s, the latter had to make room for rationality-consistency, which is still more distant from the human rationality that is invoked by classical economists. However, since consistency — while hardly compatible with the classical notion of rationality — is perfectly compatible with maximisation, at least at the level of abstraction adopted by modern economic theory, the Benthamian heritage, understood as resorting to maximisation as a kind of criterion for judging the validity of any step in such a theory, was there to stay.