



From moral welfarism to technical non welfarism : a step back to Bentham's *felicific calculus*

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From moral welfarism to technical non-welfarism.

A step back to Bentham's *felicific calculus*.

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Abstract.

A focus on the information used in Bentham's felicific calculus sheds new light on the contemporary debate in normative economics opposing non-welfarism to welfarism. As a utilitarian, Bentham is de facto welfarist on a moral sense. Unexpectedly, this study shows Bentham resorts to non-welfarist information in his calculus. Thus, technical non-welfarism is coherent with moral welfarism, and even, the former proves necessary not to betray utilitarian principles.

To sustain this claim, we challenge a view opposing a "cardinal" to an "ordinal" calculus: these two calculi constitute different stages of a unique calculus; because of operational constraints, Bentham is bound to rely on proxies, hence on non-utility information.

Key words: Bentham, individual utility, utility calculus, utilitarianism, welfarism, non-welfarism, social welfare, technical welfarism, moral welfarism.

JEL codes: B12, B31, D63.

1. Introduction. Bentham and welfarism

Bentham's utility principle is probably Bentham's best-known doctrine (see Harrison 1983: viii). Studies may concern two aspects of the utility principle. Firstly, the possibility and the modalities of aggregation of individual interests into a collective interest have been widely discussed (see Shackleton 1972; Goldworth 1979; about utilitarianism in general, see Sen and Williams 1982; Elster and Roemer 1991). Secondly, the kind of information referred in the utility principle or used in the utility calculus (see Griffin 1986: chap.1; Sumner 1996: chap.4; about utilitarianism in general, see Sen 1979b; Hammond 1982) may refer to a very contemporary and lively debate in normative economics opposing welfarism to non-welfarism. This paper focuses on this second aspect for it allows to shed light on important issues such as analyzing the tools used in welfare economics.

In order to analyze the normative content of welfare economics tools, one must study which welfare economic tool maps to which conception of justice. If the analysis of formal tools were sufficient, normative economics would yet provide the means to achieve this objective. Welfarism is the view according to which social welfare exclusively rests on individual utility: utilitarianism, among others, is a famous welfarist conception. Therefore, a social welfare function is welfarist if its domain confines to individual utility functions (a technical condition), which induces a welfarist conception of justice (a philosophical interpretation)¹.

But this view, belonging to social choice theory, may hardly be exported to welfare economics as such, without further consideration. As a matter of fact, as put forward by Fleurbaey (1998), Mongin and d'Aspremont (1998), philosophical

welfarism should be distinguished from technical welfarism. Philosophical (or moral) welfarism refers to a moral wise condition: the only relevant information in social ethics is individual utilities. Technical welfarism refers to the way of representing social welfare rather than to a moral interpretation for the social objective: a welfarist social welfare function is a function of individual utility functions only, as far as the former respects a Pareto indifference condition². In technical non-welfarism, social welfare evaluation does not depend only on individual utility functions, it may depend on different sources of information such as parameters or circumstances describing the position of the person or the group of alike persons. Technical non-welfarism does not imply that individual utility in itself is not the ethical relevant information; it just determines a way to evaluate individual state that may diverge from the strict individual utility.

If philosophical welfarism and technical welfarism were to merge, the use of technical welfarism would reveal the retained conception of justice is moral wise welfarist. The use of certain framework, as welfarism in welfare economics, would determine the normative conception put forward through the evaluations. According to this assumption, the interpretation of welfare economics assertions would be straightforward: they are moral wise welfarist. Furthermore, moral conceptions could only be diversified at the cost of altering the welfarist framework. The objective of diversifying views – as well as methods to express them – is the central aim of post-welfarist literature, also called non-welfarist literature (see, among others, Sen 1970; 1979; 1985; 1991; Pattanaik 1994; Sugden 1993; de Vroey 1990; Pattanaik, Salles and Suzumura 2004). Non-welfarism is the view according to which the evaluation of a social state does not depend only on individual utilities, but on other relevant information as well: the social objective depends on utility and on handicaps and

talents, rights, specific information about the environment, specific information about the person such as age, sex, race, occupation and so on.

Assuming identity between technical and philosophical welfarism seems nevertheless unsafe. Individual utility function may represent any index for individual states, and not only for subjective individual utility, relevant for philosophical welfarism (see Kelsey 1987; Mongin and d'Aspremont 1998). On the contrary, if technical welfarism and philosophical welfarism were to remain distinct, the task of interpreting welfare economics tools would need more than some opposition between welfarism and non-welfarism, and the interpretation of the way to aggregate individual utilities. It becomes necessary to understand which elements, besides formal representation, are relevant to analyze the normative content of the tools. Not only a quest for sense, this study is also a quest for methods: it aims at pointing out the ways to analyze the existing welfare economics tools and contributes to elaborate new ones. Thus, the evaluations of real social states and public policies design are eventually at stake in this paper.

In this perspective, the study of the links between philosophical and technical welfarism is a preliminary and necessary stage. To show this distinction holds, it is interesting to, firstly and specifically, study the coherence between philosophical welfarism and technical non-welfarism.

Two distinct methods are available to undertake a discussion about such issues. The first method, namely analytic philosophy consists of formal reasoning, based on piecemeal appeal to intuition or on the tests of completeness or correctness. An example of this would be Rechenauer's work (Rechenauer 2003): with formal proofs, he established that, even when non welfarist information is taken into account in social welfare evaluation, the framework may remain welfarist in the technical sense.

Another illustration of this may be found in Baujard (2005) concluding, on some specific example of public economics, that philosophical welfarism may be harmed by the appeal to technical welfarism. In the second method, namely, history of thought, one takes master piece of philosophical or economic literature, studies it carefully in order to develop new ideas or make specific demonstrations intended to be relevant to nowadays issues (see Lapidus 1996). This article resorts to the latter method.

In order to argue for the existence and the relevance of a distinction between philosophical and technical welfarism, I suggest to show, for a given conception of justice, how consistent philosophical welfarism and technical non-welfarism may be. The conception I retained for this study is Jeremy Bentham's utilitarianism, focusing, in particular, on Bentham's utility calculus. He is the father of utilitarianism and his works embodies the springs of the forthcoming welfare economics at stake. Moreover, the design of the tools used for welfare policies and the links between the tool and the ethical conception are explicit in his works. After Bentham, and specifically since Marshall, in spite of some interesting exceptions, the belonging to a philosophical school will be less salient, less explicit, and almost shameful in economic literature.

Utility does take the central place in Bentham's doctrine:

"Nature has placed mankind under the governance of two sovereign masters, *pains* and *pleasure*. It is for them alone to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne. They govern us in all we do, in all

we say, in all we think: every effort we can make to throw off our subjection, will serve but to demonstrate and confirm it. In words a man may pretend to abjure their empire: but in reality he will remain subject to it all the while. The *principle of utility* recognizes this subjection, and assumes it for the foundation of that system, the object of which is to rear the fabric of felicity by the hands or reason and of law.

But enough of metaphor and declamation: it is not by such means that moral science is to be improved.” (Bentham 1789: 1–2)

The “principle of utility”, also called the “greatest happiness principle” or “the greatest happiness for the greatest number” (Bentham 1831-43: 211; 1789: 5; see Shackleton 1972; Dinwiddy 1989: 25–6), is the fundamental utilitarian principle: it defines the social objective, inducing the principle of action for judges, legislators, governors, and the private moral agent (educated by the deontologist). The interest of the community is nothing but “the sum of the interests of the several members who compose it”, which directly leads Bentham to try to understand “what is the interest of the individual” (Bentham 1789: 3). According to Bentham, the social objective, namely the utilitarian ethical principle, is reach the greatest happiness, therefore to serve individual interests or individual utilities. This allows to consider his doctrine as a philosophical welfarism.

Bentham also makes a positive analysis of utility. Utility is the “property in any objects” or actions to “produce benefit, advantage, pleasure, good, or happiness” rather than pains. As a principle of the “greatest happiness of the individual” (see Harrison 1983: 106-33), utility is the principle of action of each individual.

The combination of the normative approach with the positive approach of utility, if they were inducing the same utility, would yield to a logical contradiction. There is

indeed no reason why the “ought” and the “is” should coincide: individual actions do not always contribute to collective interest. Individuals do not compute correctly their utility: they are not able to make the right computation of pleasures and pain. Besides, they might neglect the “fecundity” and “purity” of their act for instance, or in other words, “externalities” (see Sigot 1993: 29; Sigot 2001: 151; Lapidus and Sigot 2001: 67; Sigot 2002: 5, 12) may not always be taken into account when individuals make their decision. As a consequence, an utilitarian society needs instruments in order to lead individuals to achieve by their own actions the greatest happiness in the community. Bentham suggests two solutions: the role of a deontologist (see Bentham 1831; on the subject, see, for instance, Causin 1987) and the design of a law system. Implementing the right system of rewards and punishments is likely to guide individual actions, moved by their own interests, in the direction of the greatest happiness. In order to design this ideal law system, individual motives in actual situation should clearly be assessed (see Bentham 1872, part I: 195-220). This assessment is achieved through utility calculus, the actual method of deliberation. The presentation of the calculus, covered by three successive chapters in *An introduction to the principles of moral and legislation* (see Bentham 1789: chap. 4–6, 27–69), is outstandingly subtle and precise. The latter will then be considered as the basic material of technical welfarism.

This article thus focuses on the link between the principle of utility and utility calculus in Bentham’s works: the latter is the counterpart of individual utility functions in welfare economics, referring to technical welfarism; the former is the counterpart of the ethical objective welfare economics should aim at, referring to philosophical welfarism. In other words, history of thought is here used to analyze contemporary

issues: studying utility in Bentham's works allows to understand the consistency between technical non-welfarism and philosophical welfarism.

A lecture of the utility calculus that has been recently defended, henceforth called "the strong duality thesis", is here altered. The alteration is twofold. Firstly (section 2), while the gap at stake in the duality lecture decides between an "ordinal" and a "cardinal" calculus, I claim nothing in Bentham's works makes explicit this distinction; some clues rather supports a continuity thesis of Bentham's utility calculus. This lecture argues for the consistency between technical welfarism and philosophical welfarism within the context of an ideal calculus and defines precisely what Bentham means by individual utility. Secondly (section 3), after displaying this utility calculus, Bentham puts forward how necessary it is to find alternative methods of measuring utility. Thus, the gap at stake in my view rather decides between what I will call an "ideal calculus" and a "proxy calculus". Relevant information for the proxy calculus diverges from utilities as such. This lecture argues for the consistency between technical non-welfarism and philosophical welfarism within the context of the proxy calculus.

Eventually, this new lecture of Bentham's utility calculus allows to focus on relevant conditions allowing for interpreting technical welfarism or non-welfarism: when considering operational constraints, philosophical welfarism is best served by non-technical welfarism.

2. An ideal measure for utility: The ideal calculus

This section displays the argument for the first alteration of the duality thesis: there is no gap between ordinal and cardinal calculus. Basically, the different texts

devoted to the calculus do not stand for different alternative calculi, but rather stand for the different stages of a unique calculus.

2.1. Duality vs. continuity of the utility calculus

2.1.1. The duality thesis

The duality thesis was first developed by E. Halévy (1901, 1905) and was defended, notably, by A. Cot (1992) and N. Sigot (2001), though the term 'duality thesis' used to qualify it is ours. According to the duality thesis, Bentham displays, successively, two kinds of utility calculi: one resorts to "the science of classification" and has been called the "ordinal calculus"; the other one resorts to the "the science of calculus" and has been called the "cardinal calculus"³ (Halévy 1901: 43).

In the so-called cardinal procedure, utility's value is assessed according to different criteria or circumstances: intensity, duration, certainty or uncertainty, propinquity or remoteness (Bentham 1789: 29), as well as fecundity, purity and extent (Bentham 1789: 30). Utility calculus is then obtained by a genuine "moral arithmetic" (Halévy 1901: 41). For this reason, Bentham could be viewed, among others, as "the Newton for moral and economics". The so-called ordinal procedure lists categories of simple pains or pleasures (Bentham 1789: 33 and following). Circumstances influencing sensibility of heterogeneous individuals are also taken into account. Halévy considers the latter enumeration as a "scientific nomenclature"⁴. For this reason, Bentham could be viewed as "the Lavoisier"⁵ or "the Lineus for moral and economics" (Mitchell 1918: 182).

A weak version of the duality thesis, defending there exists two distinct calculi that might correspond to different stages, is unclearly claimed in Halévy and is, between others, implicit in Cot (1992). The strong duality thesis, which is at stake in

this paper, is defended by Sigot (2001: 14; 158) and is implicit in Lapidus and Sigot (2000). In the latter, different calculi are exclusive from one another. They adapt to the different pursued objectives. Sigot distinguishes between the two procedures in the following way. Ordinal calculus specifies the nature of pains and pleasures while cardinal calculus does not. In the former, the goods belong to individuals and they do subjectively feel their actual utility. In the latter, they do not have them but they form objective expectations of the utility they could derive from it. Duality is due to the fact that each calculus meets different objectives. Cardinal calculus is considered by the legislator to design the most efficient laws. Ordinal calculus, supposed to be most subjective and made by individuals themselves, is used by the judge to enforce the law, for he needs to choose the right punishment for a specific person. For they are used by different persons, ordinal and cardinal calculi are two separate calculi. Meanwhile, both procedures, each of them focusing at different constraints over utility, each of them being used by different actors, are, together, necessary to achieve Bentham's ideal: the design of a good law system.

2.1.2. Arguments for continuity

Against the strong duality thesis, I here support the continuity thesis, which argues that these two calculi constitute two stages of a single calculus. This view already been defended, though in other terms and more briefly, by Baujard (2003) and by Guidi (2004, 2005). My lecture is based on three converging arguments: a historiographic argument, a logical argument, and a consistency argument.

Utility calculus is displayed, in *An Introduction of the Principles of Morals and Legislation*⁶, in several successive chapters: the combination of weighted criteria (the so-called cardinal calculus) in chapter four; the enumeration of subjective simple pains and pleasures (the so-called ordinal calculus) in chapter five and six. But the

presentation differs in E. Dumont's French version of the *Principles of Legislation*⁷: the weighting process with dimensions is inserted in between the enumeration stage and the list of subjective circumstances. In other words, the two first chapters are inverted. In this version, ordinal calculus is pierced of cardinal traces, which yields to raise the idea according to which the distinction between ordinal and cardinal calculi is of little importance. If this is so, the strong duality thesis does not hold any more. As a matter of fact, cardinal calculus is composed of the accounting for each dimensions and the way to use them in a global calculus. If the two parts are not in, there is no cardinal calculus. As they are presented separately in the 1802 version, one may seriously doubt about the actual existence of a cardinal calculus as such. This argument is based on Dumont's translation, but it cannot be hold that Dumont would have betrayed Bentham's idea. As a matter of fact, Bentham did work very closely with the Genevan translator: the former read French perfectly and was corresponding regularly with the latter. Some correspondences even show that Bentham was reading Dumont's version⁸ and was satisfied of his work⁹. Bentham could not have been unaware of this inversion. My guess is that we should not consider two distinct calculi (cardinal and ordinal) as far as Bentham interpreted these as step of one unique calculus.¹⁰

The second argument is based on the fact that certain components are together necessary for the construction of a measure. Any measure requires, on the one hand, the definition of what the basic element is and, on the other hand, a principle of separability of the elements, necessary for aggregation. Neither the ordinal calculus, nor the cardinal calculus provides these two constitutive parts of a measure. The ordinal calculus displays a list that allows to realize an elementary decomposition: in other words, it provides the definition of utility basic element (see Baumgardt 1952:

55). The cardinal calculus provides a weighting procedure out of the criteria and the individual circumstances: in other words, it provides the principle and the specific conditions to aggregate the basic elements of utility. Therefore, both stages are logically connected: we can conclude they are complementary rather than substitute, successive rather than alternative.

A third argument bears out the continuity thesis as well, by pointing out Bentham's coherent thought. I contend that, for Bentham, the utility principle is unique in spite of its different uses. When thinking of the specific work of the legislator, judge, governors or deontologist, one may be tempted to distinguish several interpretations of utility because the context of their use is different: it is a guide for individual behavior, it denotes the principle of justice and the principle of the collective good, it is the guide for legislators, judges and government decisions. These different uses and interpretations, for the very reason of their variety, could arguably yield to different calculi. Let's consider for now the view that utility calculi should be different for each use of the principle. To put it another way, we would face different concepts of utility principle, each deserving specific names, at least for the sake of clarity. Consequently, there could be an actual distinction between this criteria of justice used by the legislator, that one by the judge and this other one by the government (or even the deontologist), as far as no specific attention is devoted to merge the interpretations of the different calculi. For instance, once the utilitarian system is set, utility as the criterion of justice would be on no account the rewarding principle of individual action. Now, the very acceptance of a plurality of utility principles amounts exactly to denying the basis of the benthamite utilitarianism. In order to avoid this disturbing implication of the manifold interpretations, Bentham's utility should be able to resolve the ensuing tensions, and this delicate task is

achieved by the complexity of the utility calculus¹¹. Various calculations complement each other mutually and eventually merge into one. A complex utility emerges from it: it is, meanwhile, made objective as an observable physical state, and, if not subjective, at least idiosyncratic, in the sense that it incorporates the specific motives for individual actions. Out of the objective stage, utility becomes a piece of information appropriate for just public decisions and judgments. Out of the idiosyncratic stage, utility is also private information, as it stands for the actual motives for human behavior. It is because utility calculus takes into account simultaneously all these facets that law and the enforcement of appropriate punishments may have an effective and coherent impact on individual actions and will manage to achieve the utilitarian objectives, namely, the greatest happiness for the greatest number.

2.2. Welfarist utility calculus

2.2.1. A three stages calculus

Following these three arguments, the continuity assumption of utility calculus is henceforth considered to hold. Utility calculus can therefore be reconstructed as a three stages procedure, based on the process of identifying the cause for the existence and strength of utility.

As any measure implies both the existence of a basic element and their aggregation, utility calculus entails, beforehand, a list of elements, and a way to decompose actual observable sensations into these elements. As the definition of the term “utility” rests on the definition of the terms “pleasure” on one hand and “pain” on the other hand (see Bentham 1789: 1-2; 24; 29), these elements will be elementary “pleasures” and “pains”. Bentham strives to isolate, among the pleasures and the

pains, the most important one in individuals' eyes. This means that only some perceptions may be qualified as "pleasures or pain". Besides, he asserts the relevant perceptions can be simple or complex. The perceptions are called simple if they "cannot be resolved into more"; they are called complex if they can be decomposed into several elementary pains and pleasures, therefore called "simple pains and pleasures" in his own words (Bentham 1789: 33). Without mentioning which method is used to draw up this list, which he just qualifies as a "heavy analytical work", Bentham proposes a list he claims to be complete of the various simple pleasures and pains. He identifies fourteen simple pleasures and twelve simple pains¹². The pleasures include the pleasures of "sense", of "wealth", of "skill", of "amity", of "a good name", of "power", of "piety", of "benevolence", of "malevolence", of "memory", of "imagination", of "expectation", the pleasures "dependent on association" and the pleasures of "relief". The pains include the pains of "privation", of "the senses", of "awkwardness", of "enmity", of "an ill name", of "piety", of "benevolence", of "malevolence", of "the memory", of "the imagination", of "expectation" and the pains "dependent on association" (Bentham 1789: 33-4; see the details about each simple pains or pleasure in the following pages). As some pleasures are not associated to a corresponding pain, elementary pleasures are more numerous than elementary pains.

Before aggregating pleasures and pains, Bentham introduces a second stage in utility calculus. Once each simple pleasure and pains is identified, they should be weighted by four criteria to obtain their relevant value: their "intensity", their "duration", their "certainty or uncertainty" and their "propinquity or remoteness". Other criteria are also taken into account: "fecundity", "purity" and "extent" (Bentham 1789: 29-32). The levels of the criteria are specific to each individual and each situation¹³.

For example, the intensity of pleasure derived from a thing for one person is not equal to the intensity of pleasure another person would derive from it.

However, the legislator has no access to this private information needed to achieve the utility calculus. He rather needs information open to observation. An objective account for utility is then needed. If this rationale is put up to its extreme consequences, utility should be interpreted as an intrinsic property of the things to produce pleasure and pain (Mongin and d'Aspremont 1998: 280), independently of the effects of things on the pleasures or the pains individuals actually feel. And as a normative principle, justifying individual actions, this would not be shocking at all. Utility and its measure would be unique for everybody. With nowadays words, utility would be a function of things identical for all people, which means information about "things" becomes sufficient information for any public and judgment decision. This would undoubtedly facilitate any interpersonal comparisons of utility likely to be necessary in future stages. Considering a list of pains and pleasures derived from specific situations independently to individual characteristics means that the same offences require the same punishments, no matter what specific circumstances the individual who committed them actually was in. Nevertheless, pains and pleasures are only likely to motivate individuals to act the right way if the formers are individually incentive or dis-incentive. Utility is, as a matter of fact, the principle explaining action. What really matters to implement justice is then, rather than pains and pleasures as externally observed by outsiders, pains and pleasures individuals actually feel. Thus, it necessary to choose idiosyncratic penalties. Individuals estimate *ex ante* pains and pleasures generating an action. Their choice to act or not to act relies on these anticipations. If the system of penalties is well adapted, their calculation will drive them to act so that they actually contribute to the biggest

collective utility. Bentham hence proposes an intermediate way to objectivate utility. Utility should be observable, but it does not need to be unique for each person: the measure should be specific to each person. This explains the third stage of utility calculus: he introduces observable parameters describing individual circumstances influencing individual sensibility (see Bentham 1789: 43-69; for a more concise presentation, see Bentham 1802, I: 60-77). This approach requires to draw up an exhaustive list of the elementary circumstances affecting the sensibility of the individuals. Due to lack of courage, he says, Bentham does not undertake this heavy task. He rather proposes a "method" allowing to identify certain circumstances. Individuals' sensibility is first based on their temperament or their "original constitution". It is besides influenced by health, strength, hardiness, bodily imperfection, the quantity and quality of knowledge, strength of intellectual power, the firmness of mind, steadiness of mind, bent of inclination, moral sensibility, religious sensibility, religious biases, sympathetic biases, antipathetic sensibility, antipathetic biases, insanity, habitual occupation, pecuniary circumstances, connexions in the way of sympathy, connexions in the way of antipathy, radical frame of body, radical frame of mind. Bentham's utility is thus idiosyncratic: it is not subjective but specific for every individual. Eventually, utility is objective and parametric: it may differ along with different groups of individuals, defined by their specific circumstances.

2.2.2. Technical welfarism at the service of philosophical welfarism

Bentham's utilitarianism is by definition a philosophical welfarism: morally speaking, individual utilities, as captured by the utility principle, are the only relevant information to assess social welfare.

According to the continuity thesis of utility calculus, the complex utility calculus integrates successively the various constraints connected with normative

interpretations of the principle of utility. This does not mean information about environment and individual characteristics are not relevant to infer individual utility but that they are relevant because they contribute to and eventually define very sharply individual utility.

Therefore, representation of the utility is welfarist, in the technical sense. Besides, it is coherent with philosophic welfarism.

3. An operational measure for utility: The proxy calculus

Unexpectedly, Bentham criticizes this very utility calculus. On the one side, information that proved indispensable to realize utility calculus is severely difficult to get and, even so, it might be unreliable. On the other side, the project is likely to become inconsistent because of the authoritarian aspects of utilitarianism. Bentham then suggests another method of deliberation, resorting to satisfactory proxies for utility. It leads to distinguish the “ideal utility calculus”, presented in the previous section, from the “operational utility calculus”, presented below.

Two types of proxies for utility are eligible. Currency is the proxy favored by welfare economics succeeding Bentham. Besides, I shall attempt to argue for the role of a second proposition he made: the appeal to secondary circumstances, which typically coincides with non-welfarist information. I then observe how Bentham manages to remain simultaneously welfarist in the philosophical sense while he becomes non-welfarist in the technical sense.

3.1. Necessary satisfying proxies

3.1.1. Self-criticism

First of all, because of problems of gathering information or the questions about the reliability of information, utility calculus displayed earlier is hardly operational. Bentham pains and pleasures calculus designed to implement the right laws and their mode of enforcement for various situations is certainly robust and exhaustive. Bentham recognizes however that it would prove difficult – and even vain – to actually try to put it into practice, although it was designed for this particular purpose. This difficulty comes in particular from the second and the third stage of the calculation, which require a very sharp specification of criteria and individual circumstances. Bentham points out more particularly the circumstances stage:

“I do not want to hide specious objections. “ How is it possible to take into account all these circumstances influencing sensibility? (...)” A head of family can consider these internal dispositions, these varieties of characters for the treatment of his children; but a public schoolteacher, in charge of a limited number of followers cannot. All the more reason for the legislator who has in mind numerous people to be obliged to confine to general laws, and even, he must be afraid of complicating them by coming down to particular cases.” (Bentham 1802, I: 81, my translation; see also Baugmardt 1952: 235-236)

Bentham notices that the identification of all the relevant circumstances, to estimate the causes for sensibility of every individual, all the more if we are interested in a whole community, is a long work. It is so inordinately tedious, expensive, and far from the competence and role of a judge or a parliament that the solution consisting

of giving up this method is very tempting, nay very hard to avoid. The second argument raised by Bentham concerns the difficulty to access to the private information relevant to assess individual utility. Indeed, the legislator faces a problem of asymmetric information between the State and the individuals. The latter would be well advised to manipulate information in their favor, especially poor men and civil servants¹⁴. The possibility of manipulating information raises a severe doubt about the reliability of the information necessary to implement the law system. Thus, two types of arguments ought to be distinguished here: the possibility of access to the information – thus a condition of existence –, and the reliability of the information – thus a condition of quality. In other words, even if this information were available, it would still not be reliable.

Secondly, Bentham accounts for the internal incoherence of the principle of utility. As far as each individual is the best judge of his own interests, interests of the community are better assessed by the largest number of people. Now, the former utility calculus incorporated in the law system is likely not to end to this desirable result. Bentham notably underlines the risk of judges' arbitrary power (see Bentham 1802, I: 81)¹⁵. The design of the laws by legislators must be general and must neglect particular contingencies while law enforcement by the judges must be adapted to each particular situations (by considering the circumstances of the offence, the consequences of the offence on the victim and on all the members of the society...) Requiring that law enforcement respects these contingencies while law is general generates a gap. Because of the gap between the situations foreseen by the laws and the actual situations to be judged, the judges face a zone of uncertainty law does not control. This gap generates a possibility for an arbitrary power of the judge. This is unacceptable. Besides, the legislator should design laws in the collective

interest. But we can imagine without any trouble that he might pursue his own interest. He would choose a law system maximizing his own utility and abandon the right objective of maximizing collective utility. Rather than “the biggest utility of the biggest number”, we might get “the principle of the biggest utility of the legislator”. Hence, the judge, the legislator, or any person in charge of the utility calculus, may violate the supreme principle of utility. And again, this situation is not acceptable. Bentham, under the influence of James Mill¹⁶, was then converted to democracy: a democratic construction of utility calculus constituted a possible and satisfactory answer to circumvent this violation of the utility principle.

Another utility calculus is then necessary, that would be consistent with the utility principle in any situation. While technical welfarist utility calculus would seem to make sense at first sight, this calculus actually proves to be an ideal construction, unlikely to serve faithfully philosophical welfarism. Working out some alternative calculus is imperative to make benthamite utilitarianism operational.

3.1.2. The quest for a proxy

Ideal utility calculus includes various successive stages, as presented earlier. Drawing up the list of all elementary pains and pleasures derived from each action and weighting them by seven criteria and taking into account the thirty-two circumstances influencing individual sensibility should be a tedious task. Bentham suggests substituting this calculus with some proxies. He notably suggests to resort to the measuring rod of money¹⁷. Money indeed constitutes a proxy for utility displaying a number of advantages¹⁸.

First of all, it requires very little information compared to the ideal calculus, for which necessary data are difficult to find, private and not always reliable. Monetary measures are, on the contrary, accessible information to the legislator.

“Instead of pleasure itself, to show how an estimate might be formed of the diminution of propinquity and certainty, it becomes necessary to substitute to pleasure itself some external object known by experience to be of the number of its sources or say its *causes*: for example, *money*.” (Bentham 1822: 540-41)

The second advantage of the measuring rod of money is that it provides a measure of intensity of pleasures out of reasoning about indifference, along with nowadays microeconomics standards (see Bentham U.C. 27.36, reproduced by Goldworth 1979: 11). On the one hand, cardinal measure allows to realize calculations making sense for one individual. On the other hand, it allows to compare different individual utilities. In other words, the appeal to the measuring rod of money facilitates the realization of intrapersonal and interpersonal comparisons of utility, necessary to express social judgments. Bentham may thus consider the measuring rod of money as the basic information summarizing pains and pleasures data.

“Now, money, as has been said is the only current and universal means in the hands of the Legislator of producing pleasure.” (Bentham U.C. 27.36, reproduced by Goldworth 1979: 12)

It may be used to infer the right policy or to implement policy.

The advantages of the measuring rod of money must not mask its drawbacks. And Bentham was indeed aware of its limits. He particularly had in mind the problem of what is now called “decreasing marginal utility” (see Goldworth 1979: 3), and the variations of utility of money over time and over persons (see Bentham U.C. 27.35,

reproduced by Goldworth 1979: 7-8). To bypass this problem, Bentham considers it is unimportant when small quantities are at stake. This condition, resumed later by A. Marshall¹⁹, may prove impossibly demanding: in these very situations, one should not resort to this measure. Besides those Bentham raised himself, several other problems could be raised as well. The measuring rod of money hardly takes into account fecundity and purity without any further inquiries (see Halévy 1901 : ?). From then on, the role of time and of external effects is not straightforwardly captured in monetary measures. It is problematic since Bentham did justify their importance and did make some effort to integrate them in utility calculus. The measuring rod of money seems at first sight convenient to respect the operational objective of utility calculus. But it fails to report every essential elements of utility principle without further specific work. Bentham concludes that the measuring rod of money is a very imperfect tool to assess utility, but that it might be necessary to make do with it, for “lack of better instrument”. To resume his metaphor, a bad thermometer is still better than no thermometer at all (see Bentham U.C. 27.37, reproduced by Goldworth 1979: 13).

3.2. A non-welfarist utility calculus

3.2.1. Objective and idiosyncratic utility

The measuring rod of money may notably be blamed for not taking into account differences in individual sensibility, while they are relevant for the principle of utility. Because of these differences requiring specific weighting for each person according to her personal circumstances, utility calculus proved too complicated and too heavy to be considered as operational. Bentham then suggests another way around. Rather

than considering these numerous primary circumstances, secondary circumstances could be used instead as satisfactory proxies (see Bentham 1789: 65-6).

In *An introduction in the principles of the morality and the legislation*, both types of circumstances are listed together: primary circumstances correspond to the first twenty-four circumstances and the secondary ones correspond to circumstances 25 to 32. Besides, it is interesting to notice that, in Dumont's presentation, each type of circumstances belongs to a distinct section (see Bentham 1802, I: 70). Bentham does specify their difference of status:

The secondary influencing circumstances "have an influence, it is true, on the quantum or bias of a man's sensibility, but it is only by means of the other primary ones. The manner in which these two sets of circumstances are concerned, is such that the primary ones do the business, while the secondary ones lie most open to observation. The secondary ones, therefore, are those which are most heard of; on which account it will be necessary to take notice of them: at the same time that it is only by means of the primary ones will be apparent enough, without any mention of the secondary ones." (Bentham 1789: 58)

The so-called "first circumstances" (basically consisting of strength, light, firmness of mind, perseverance, ideas of honor, feelings of sympathy) are not always observable or, at least, data about these circumstances are not always reliable. For this reason, they can hardly be used in utility calculus. Legislator's account for utility may be based on "secondary" circumstances, such as sex, age, rank, education, habitual occupations²⁰, climate, lineage, government and religious profession.

These secondary circumstances explain nothing independently of their link with the primary circumstances. In this sense, they are not part of an actual definition of

utility in itself; they are just interesting because of their correlation with relevant circumstances. Indeed, they are “any very visible things, very easy to observe, very convenient to explain the different phenomena of sensibility” (Bentham 1802, I: 70). They are observable and this observation provides reliable information. Thanks to their correlation with the primary circumstances, identifying secondary circumstances provides a satisfactory proxy for utility calculus. This modifies substantially the way to assess pains and pleasures by those who actually put into practice utility calculus, i.e. government, legislators and judges.

“It is not a question of answering but of clearing up: because all this contain a difficulty rather than an objection; the principle itself is not denied, but its enforcement is considered as impossible. 1° I agree that most of these differences in sensibility are imperceptible, that it would be impossible to even notice its existence in individual dispositions, or to measure its strength or degree; but fortunately these internal and hidden bents have, so to speak, external and obvious indices. These are the circumstances, which I called secondary: sex, age, rank, education, habitual occupations, climate, lineage, government, religious profession; obvious and tangible circumstances representing internal dispositions. That’s a relief of the most difficult part for the legislator. He does not settle on metaphysical or moral qualities, he just considers conspicuous circumstances. He orders, for example, to modify such punishment, not because of the biggest sensibility of the individual, or because of his perseverance, strength of mind, lights, etc., but because of sex and age. It is true that the presumptions derived from these circumstances are likely to be in the wrong. A child of fifteen years old might be more

enlighten than a man of thirty; such a woman might have more courage or a lower sense of decency than such man. But these presumptions will have, generally, all the required correctness to avoid passing tyrannical laws, and especially to reconcile the legislator to the opinion votes. 2° These secondary circumstances are not only easy to grasp; they are in small number, they form general categories. They might generate justification, mitigation, or aggravation for various offences. So, the complication disappears, everything comes down easily to the principle of the simplicity. 3° There is no arbitrariness: it is not the judge but the law who modifies this or that punishment, according to sex, age, religious profession, and so on. [...]" (Bentham 1802, I: 82-4)²¹

Reconstructing Bentham's idea, I could claim that operational utility calculus is achieved in two steps. Firstly, pains and pleasures are assessed by the measuring rod of money, observing actions and situations. Secondly, this measure is adapted to the persons at stake – culprits, victims, and any stakeholders in the affair – by introducing the description of their secondary circumstances. First step gives general information about actions, second steps corrects this first result as drawbacks that may happen by not taking into account individual specification. Thus individual utility is assessed by incorporating two kinds of information that are not in itself utility but are actually considered as good proxies for utility.

3.2.2. Bentham is technically non-welfarist. So should be utilitarians!

In utilitarianism, the social objective, namely utility principle, is based on individual utilities. Utilitarianism is welfarist in the philosophical sense. An intuitive tool to conduct utilitarian policy would be some measure of social welfare that would be welfarist in the technical sense. For Bentham, utility is to be measured by

assessing the cause for pains and pleasures. The three steps calculus defines what utility really is according to the utility principle. What I have dubbed “the ideal utility calculus” is the basic welfarist information in the technical sense for Bentham’s utilitarianism.

Nevertheless, he suggests that legislators, judges and governors use a different source of information. So that the calculus be operational, it proves necessary not to settle to the inherent practical difficulties of utility calculus and go on. There exists proxies for this utility that are objective, interpersonally comparable and correspond to criteria recognized as relevant for justice issues: money and secondary circumstances. The appeal to proxies then allows to avoid most obstacles for implementing a utilitarian system of laws and utilitarian policies. But in using them, Bentham is notably moving away from technical welfarism. Some information proving relevant to assess social utility differ from individual utility while using utility information may yield to violate the very utility principle, mainly because of operational constraints on the process of gathering such information. In other words, he justifies the fact that a non-technical welfarism may be the most efficient way to serve philosophical welfarism. Non-technical welfarism is consistent with philosophical welfarism. Thus, unexpectedly, *Bentham, the father of utilitarianism, is technically non-welfarist*. Following Bentham, we now know there is no utilitarian – or welfarist – reasons to reject technically non-welfarist works. Even more, this is an important teaching for utilitarian: as L. Stephen would claim that “to accept the philosophy was to be also pledged to practical applications of Utilitarianism” (Stephen 1900: chap. VI, section 1), one can be utilitarian if and only if he or she accepts and uses the actual way to enforce it, namely here, technical non-welfarism.

The distinction between philosophical and the technical version of welfarism is not yet standard in welfare economics. The confusion is on the contrary widely spread. Here, we clearly showed that there is no simple link between technical welfarism and philosophical welfarism: the intuitive connection does not hold. A general conclusion can be derived from this study. As the link between interpretation and formal representation is not straightforward, 1) when you intend to express some normative conception, picking the right tool is not obvious; 2) when you want to identify the social justice conception expressed by some specific tool, as social welfare functions in welfare economics, analyzing the formal representation for the latter proves to be insufficient, it is necessary to take into account the effects of operational constraints on interpretation, between which, notably, the procedure used to pick non-welfarist information.

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¹ Another step to analyze the normative content of the social welfare functions used in welfare economics concerns the aggregation of individual utilities into social welfare. This issue is probably the most studied in normative economics, as well as in Bentham's studies, but this is not the issue we address here.

² According to Pareto indifference condition, if everybody's utilities in the society is equal in two different situations, social welfare should also be equal for these two situations. This condition is the minimum requirement to express welfarism. See Holtug 2003. Note though that technical welfarism is

often characterized with a further condition, called independence condition. See, for instance, d'Aspremont et Gevers 2002.

³ This designation, which has nothing to deal with the standard opposition between cardinal and ordinal measures of utility, is commonly used in Bentham's studies, in spite of a regrettable risk of confusion.

⁴ "By setting the rules of his moral arithmetic, he works on constituting, in some ways, a mathematical arithmetic analogous to mathematical physics." (Halévy 1901: 43 our translation). See also Halévy 1901: 46.

⁵ "By searching the principle of a natural classification of motives and offences, he proceeds like the doctor classifying diseases; or even, to stick to the same branch of sciences, he proceeds like the botanist, who classifies genera and species, as the chemist who wants to give the new science a tongue, he creates a scientific nomenclature." (Halévy 1901: 43 our translation). See also Halévy 1901: 46.

⁶ Bentham 1789. References of other texts where Bentham displays the utility calculus are listed in Mitchell 1918: 164.

⁷ Bentham (1802, I, II, III) is an interpretation of Bentham's thought, based on many different texts. For the list of these texts, see Bentham 1802, I: viij-ix. For a systematic study of the used sources, see Halévy 1901: 281-85.

⁸ Letter from Dumont to Bentham: "Here is, my dear Bentham, the original and the copy – I didn't have the time to re-read it, which could have spared you some corrections – I preferred for these of a certain extent, that you write them with a nib rather than with a pencil that awfully tires my eyes and sometimes definitely vanishes – and maybe it should be better to put them on aside-sheets with page reference." (Lettre 1052, in *The correspondences of J. Bentham*, vol.5: 127, written in French, our translation).

⁹ Letter from Bentham to Dumont : "Between us, I think we know something about legislation. I have often been enchanted – never shocked" (Lettre 1697, in *The correspondences of J. Bentham*, vol.7: 28). See, also on the subject, Harrison 1983: xii-iv.

¹⁰ The main arguments of Guidi to reject the strong duality thesis are indeed that there is no textual proofs for this. See Guidi 2004: 113.

¹¹ Before insisting on the diversity of the components of utility, Bentham, speaking about the utility calculus, claims: "To give it the whole efficiency it should have, that is to say, to take it as a basis for a common reason, there are three conditions to fulfill. The first one is to link to this word utility some clear and specific notions that could exactly be the same for all who use them. The second one is to establish the unity, the sovereignty of this principle, excluding rigorously everything that is not it. [...] The third one is to find some processes of a moral arithmetic, through which we could reach uniform results." (Bentham 1802, I : 2)

¹² In E. Dumont's *Traité*, fifteen pleasures and eleven simple pains are enumerated (Bentham 1830, I: 38-49) while the 1789 edition of *An Introduction*, which is the standard reference, refers to fourteen and twelve pleasures and pains, respectively (Bentham 1789: 33-42).

¹³ A presentation of the arithmetic rules needed to integrate these criteria in the actual utility calculus and some illustration of such a calculus are given in Bentham U.C. 27.5, edited by Baumgardt 1952, appendice IV.

¹⁴ For a complete presentation of Bentham's argument about these two examples, see Sigot 2001: 174-79.

¹⁵ Nonetheless, Bentham was aware of these foreseeable consequences of uncertain rules for civil servants so that he designed many rules to avoid them. On this subject, see Gérard 1987.

¹⁶ According to a standard thesis, Jeremy Bentham's meeting with James Mill in 1808 would be the decisive event for his conversion to democracy. For others, the failure of the Panopticon project and the lack of confidence inspired by George the third, would have contributed to the estrangement of Bentham from the authoritarian aspects of utilitarianism, until he eventually joins democracy's ideal.

¹⁷ Notice the role of money in measuring utility fits very well in the context of the duality thesis as well. See, for instance, Sigot 2001: 153-5.

¹⁸ Money does not take much place in Bentham (1789) but appears to be more and more important in later works, such as the *Principles of the Civil Code* (knowing that *An Introduction* was written in 1780), the *Codification Proposal*, the *Constitutional Code* and the *Pannomial fragments*.

¹⁹ Marshall was also aware of the severe drawbacks of the measuring rod of money. See Marshall 1890: 24.

²⁰ Notice there has been a discussion between Dumont and Bentham on whether habitual occupations should be considered as primary or secondary circumstances. See Bentham 1843: 308-9.

²¹ I choose to reproduce this text for it is more explicit than former ones to explain the status of secondary circumstances. This version is my translation from the French version by Dumont. Notice there exists an English translation of this text by Hildreth.

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