Bentham on Mensuration: Calculation and Moral Reasoning

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This article argues that Bentham was committed to attempting to measure the outcomes of rules by calculating the values of the pains and pleasures to which they gave rise. That pleasure was preferable to pain, and greater pleasure to less, were, for Bentham, foundational premises of rationality, whilst to abjure calculation was to abjure rationality. However, Bentham knew that the experience of pleasure and pain, the 'simple' entities which provided his objective moral standard, was not only subjective, and only indirectly accessible to the legislator, but also typically dependent on a complex of socially mediated beliefs and attitudes. All moral reasoning involved a process of inference from contingent 'facts' which was littered with possibilities for error. The Bentham who emerges is a more vulpine hedgehog than is usually allowed, whose core insistence is that, despite its imperfections, consequentialist analysis and decision-making remains the only viable route to a rational morality.

INTRODUCTION: THE CLEFT STICK

There is much talk in the Benthamic literature of a felicific calculus; and the term naturally suggests a most pretentious apparatus of measurement and computation. But, in fact, this is all shop window. The mathematical exposition of such a calculus, its equations of second differentials and the like, with the implication that, given sufficient statistics, there exists here a guide to legislators, is something which comes much later. . . . [Bentham's] use of the felicific calculus lay in quite another direction – in rough judgments of the expediency of particular items of the penal law, in general estimates of the suitability of existing institutions or the desirability of other institutions to take their place. It was not necessary for all this that they should have used such a pretentious label; and it is to be noted that David Hume, whose procedure was essentially similar, never indulged in such flourishes.[1]

Robbins equates Bentham's approach with that of Hume. This was emphatically not Bentham's view,[2] but there is a Humean problem

[1] Lionel Robbins, *The Theory of Economic Policy in English Classical Political Economy*, 2nd edn. (London, 1978), p. 181.

[2] The central problem with Hume's treatment of utility for Bentham concerned precisely its unfitness for the evaluation of competing decisions or rules: '[N]o criterion of right and wrong – no answer to the question, "What *ought to be done* and what ought to be left undone?" is on any occasion endeavoured to be furnished': ('Article on Utilitarianism: Short Version Marginals', *Deontology, together with A Table of the Springs of Action and the Article on Utilitarianism*, ed. A. Goldworth (Oxford, 1983 (*CW*)), pp. 319–28, at 323). And see also p. 324: 'As to *good and evil* . . . all that he says on these subjects, including all he says on the subject of *utility*, consists of mere speculation; no part of it has been

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at the heart of the calculation of the values of pleasures and pains. Bentham was sure that without an external, objective standard we remained stuck in a quagmire of nonsense. Pleasure and pain supplied the desired standard, but the problem re-emerged in that the human experience of pleasure and pain was always not only subjective, and in one central dimension unsusceptible of exact mensuration, but also mediated by a complex array of socially determined, value-laden assumptions about human life. When he wrote about our judgements (especially prospective judgements) concerning the pleasures and pains consequent upon action, Bentham expressed a positively Humean scepticism about the accuracy of our inferences. Philosophically, he was left in something of a cleft stick, and he knew it. On the one hand, he was desperate to hang on to his objective, external standard; on the other, the 'simple' entities which provided that standard remained – at least to the legislator – only indirectly accessible and typically far from simple. All moral, legal, or philosophical reasoning was hypothetical, involving a process of inference from contingent 'facts', which was, in fact, inescapably subjective, and littered with possibilities for error.

Section I presents Bentham's essential claims concerning the nature of rationality, the place of calculation within it, and the striking advance made by the adoption of the principle of utility in moral discourse. Section II discusses Bentham's instructions for determining the values of pleasures and pains, and contests the view that Bentham rejected in principle the attempt to assess the relative values of the sensations arising from particular rules or actions. In section III, Bentham's investigations of two possible routes to a resolution of the problem presented by the 'imponderability' of the intensity of sensations are examined, the first using the money price of an instrument of pleasure as an indirect, proxy indication of the expected balance of sensations, and the second offered by the reduction of all pains and pleasures to simple bodily sensations. It is argued that Bentham remained attracted to the former, despite its obvious problems, but decisively rejected the second for all but rhetorical purposes. The 'simple' pleasures and pains with which he was concerned in fact consisted in large part of sensations which depended on complex psychological processes in which socially mediated beliefs and attitudes played a central role. Section IV examines Bentham's analysis of the limitations inherent in

applied by him, or is capable of being applied, in such sort as to be of use to practice: like a cloud which, floating in the air at different levels but never in the form of rain descending upon the earth, does but tantalize the thirsty traveller without contributing any thing towards his relief.' For an acute analysis of the differences between Hume and Bentham in the interconnected fields of language, metaphysics and epistemology see D. Long, ' "Utility" and the "Utility Principle": Hume, Smith, Bentham, Mill', *Utilitas* 2 (1990), pp. 12–39.

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the process of calculation of the values of pleasures and pains in moral or legal reasoning. It is argued that, in opposition to a reductionist caricature of Bentham's views on human motivations and psychology, he displays acute insight into the obstacles which vitiate the reasoning process, even when that process seeks to attend only to 'facts', and into the errors to which that process gives rise. The Bentham who emerges is a rather more vulpine hedgehog than is often allowed, whose core insistence is ultimately that consequentialist analysis and decision-making – despite the irremediable imperfections in the process of calculation essential to it – remains the only viable route to a rational morality, and rational set of legal rules.

I. THE MEANING OF CALCULATION

It is the central assertion of this article that for Bentham moral reasoning (as distinct from sentiment or habit) depended absolutely on the possibility of calculating the value of the probable pleasures and pains accruing to human beings in consequence of an action or a rule. In the absence of such calculation, moral reasoning could be grounded on nothing more than prejudice. Bentham's entire case for the superiority of the principle of utility to that of sympathy and antipathy rests on the claim that such calculation is possible: only thus is it possible to exchange sense instead of mere sounds, to communicate sense instead of nonsense.[3] For Bentham, nonsensical propositions are simply propositions divorced from, and untestable by, sense experience. Such propositions are meaningless, and incapable of either truth or falsehood.[4] Only by being rooted in sense experience can discussions of policy be informed by relevant facts concerning the effects of proposed measures on real, objective, measurable entities, namely pleasures and pains.[5]

For Bentham, value – all value, economic, aesthetic, moral, or political – depends absolutely on a single binary opposition between agreeable sensations (i.e. pleasures) on the one hand, and disagreeable ones (i.e. pains) on the other. Bentham takes the preference for pleasure over pain as the foundational premise of rationality. By inference

[3] Of course, the principle of asceticism also allows the exchange of sense, but, in Bentham's view, a proper understanding of the principle can only result in its rejection: see J. Bentham, *An Introduction to the Principles of Morals and Legislation* (henceforth *IPML*), ed. J. H. Burns and H. L. A. Hart (London, 1970 (*CW*)), p. 21.

[4] For a fuller discussion see M. Quinn, 'Which comes first, Bentham's Chicken of Utility, or his Egg of Truth?', *Journal of Bentham Studies* 14 (2012), <http://www.ojs.lib.ucl.ac.uk/index.php/jbs/article/view/111>.

[5] See Bentham's marginal summary in 'Elements of Critical Jurisprudence', University College London collection of Bentham manuscripts (henceforth UC), lxix. 10: 'Beginning: Physical Sensibility the Ground of Law'.

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therefrom, a pleasure of greater value is preferable to one of lesser value. The assessment of quantities, calculation in a word, is thus, for Bentham, utterly integral to the meaning of rationality. Intelligent political debate demands comprehensible and verifiable reasons, while there is simply no such thing as a good reason which does not consist in an assertion about quantities of pleasures and pains: 'To exhibit these reasons is to draw up the account between law and happiness: to apply arithmetical calculations to the elements of happiness.'[6]

Bentham's claim is that utility, and only utility, is able to offer meaning, by dealing in the currency of human sensations, that is by basing itself on the indisputably real entities of pain and pleasure: 'We all know but too well what pain is. It is a simple idea. It is felt. It is not to be defined.'[7] Human beings pursue pleasures and recoil from pains. The anticipated pains and pleasures consequent upon an action constitute the motives giving rise to it. By establishing rules under which pleasures and pains accrue to particular categories of agents, in consequence of their performance or non-performance of particular actions, the legislator manipulates motives. The quantity or amount (or, to use Bentham's term, the value) of punishment (i.e. pain) required to deter men from the commission of a particular offence depends upon the net value of the benefits or pleasures (or, to use Bentham's preferred term, the profit) which they anticipate from its commission. Hence Bentham's first rule of punishment: 'The value of the punishment must not be less in any case than what is sufficient to outweigh that of the profit of the offence.'[8] Since punishment by definition causes pain, and since pain is by definition evil, this rule is necessary but not sufficient to determine the appropriate value of punishment. Excessive punishment, punishment inflicting more pain than that required to outweigh the anticipated benefits from an offence, inflicts pain to no good end: 'the legislator will have produced more suffering than he has prevented'.[9] In terms of Bentham's analysis, such punishment is

[6] Bentham, 'Codification Proposal, Addressed by Jeremy Bentham to All Nations Professing Liberal Opinions', *'Legislator of the World': Writings on Codification, Law and Education*, ed. P. Schofield and J. Harris (Oxford, 1998 (*CW*)), pp. 241–384, at 250–1. See also Bentham, 'A Fragment on Government', *A Comment on the Commentaries and a Fragment on Government*, ed. J. H. Burns and H. L. A. Hart (London, 1977 (*CW*)), pp. 391–551, at 491: 'The footing on which this principle rests every dispute, is that of matter of fact; that is future fact – the probability of certain future contingencies.'

[7] Bentham, 'Preparatory Principles Inserenda' (UC lxix. 94), where Bentham also makes the same statement about pleasure.

[8] Bentham, *IPML* (*CW*), p. 166.

[9] Bentham, *The Rationale of Punishment* (London, 1830), p. 24 (*The Works of Jeremy Bentham*, published under the superintendence of his executor, John Bowring, 11 vols. (Edinburgh, 1843) (henceforth Bowring), vol. 1, pp. 388–525, at 397). This work, being a retranslation of the first volume of a recension by Étienne Dumont, *Théorie des peines et*

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'unfrugal', and unprofitable: the best penal code prevents crimes with the minimum possible infliction of pain.[10]

A rational penal code, then, depends on the ability to calculate on the one hand the pains (to the victim and to the wider society through the contagion of alarm and danger), and the pleasures (to the perpetrator) consequent on a particular offence, and, on the other hand, the pains (to the offender and to his connections in the way of sympathy and interest), and the pleasures (to the victim, perhaps in the way of compensation, and to society at large in terms of the prevention of future offences) consequent on the infliction of punishment. 'In this operation, every thing ought to be taken into the calculation of profit and loss.'[11] Bentham's claim is that the principle of utility facilitates such calculation, while his theory of punishment seems to offer a fine-tuned approach to the calculation of the amount of punishment necessary to outweigh the expected gain from any offence. He noted that the demands of Montesquieu and Beccaria for proportion between crimes and punishments were 'more oracular than instructive',[12] and he was determined to do better. As Draper notes: 'The superiority of Bentham's system in its deterrent effectiveness relied completely on the accuracy of its calculative analysis of the quantity of punishment relative to the offence.'[13]

As is clear from the quotation above, Robbins believed that Bentham did not take the project of calculation very seriously. There were indeed many factors which vitiated any attempt at fine-tuned calculation, and Bentham was in fact alive to all of them. He was certainly not above exploiting the ambiguities of language for the sake of enhancing the attractiveness of his 'shop window': *only* utilitarianism could offer determinate conclusions based on objective ideas. On occasion, he did describe the process of calculation as synonymous with that of adducing reasons for or against a particular policy or decision, so that his emphasis on calculation transmutes into a typical enlightenment demand for a process of justification which is open, public and

des récompenses, 2 vols. (Paris, 1811), comes with a caveat in the sense that it was not, strictly speaking, written by Bentham. The same caveat applies to *Rationale of Reward* (London, 1825) (Bowring, vol. 2, pp. 189–266), and a similar one to 'Principles of the Civil Code' (Bowring, vol. 1, pp. 297–364).

[10] 'We should say, then, that a punishment is economic, when the desired effect is produced by the employment of the least possible suffering' (Bentham, *Rationale of Punishment*, p. 27 (Bowring, vol. 1, p. 398)).

[11] Bentham, *Rationale of Punishment*, p. 27 (Bowring, vol. 1, p. 398).

[12] Bentham, *Rationale of Punishment*, p. 32 (Bowring, vol. 1, p. 399).

[13] A. Draper, 'Punishment, Proportionality and the Economic Analysis of Crime', *Journal of Bentham Studies* 11 (2009), <http://www.ojs.lib.ucl.ac.uk/index.php/jbs/article/view/58>.

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rational.[14] 'The instrument employed by the principle of utility is calculation. What is calculation? Answer: reasons applied to the subject in the manner best adapted to the subject.'[15] Postema employs this quotation to argue that 'While Bentham often spoke of the "calculus of utility", he usually did not have a mathematical model in mind, but rather a process of careful and deliberate assessment of the reasons.'[16] However, for Bentham, if calculation was about advancing reasons, the act of advancing reasons necessarily involved making assertions about the tendency of actions to produce pains and pleasures:

> A reason, if it is any thing for or against a point of conduct, is the allegation of certain pains or pleasures to ensue from it. . . . The word reason, to mean any thing, applied to mere physical events and appearances is synonymous to cause: applied to moral actions it is still synonymous to cause, by being synonymous to motive. And what is motive ever, but pain and pleasure?[17]

Is calculation for Bentham explicitly about mathematics, about quantities? Exactly eleven lines after defining calculation as the application of reasons, Bentham notes: 'To calculate is to take an account of quantities (under the principle of utility) of such pleasures and pains as seem likely to be the result of the line in question.'[18] In other words, the very notion of 'a reason' entails a calculation of quantities of pain and pleasure:

> Calculation (*as supra*) an application of reason, quantity being the subject. To reprobate an attention to quantity of pleasure and pain, the maximum of paradox and absurdity. Suppose the principle practised a day by any man. A mad-house the only place fit for him in respect of his own safety, or that of others.[19]

Execution of the task of calculation may be more or less difficult, depending on the particular pleasures and pains involved, but the making of the attempt is necessary if we are to exchange sense: 'For success, the Utilitarian depends on correctness, especially on the estimate of pain and pleasure resulting from every action.'[20]

[14] See, for instance, Immanuel Kant, *An Answer to the Question: 'What is Enlightenment?'* (London, 2009), pp. 3–4.

[15] Bentham, 'A Table of the Springs of Action: Marginals', *Deontology* (*CW*), pp. 5–73, at 43. See also p. 35: 'He who, on whatever subject or occasion, discards *calculation*, i.e. reason, to follow the dissocial passion is an enemy to mankind, no less than the Savage whom he takes for his model.'

[16] G. Postema, 'Interests, Universal and Particular: Bentham's Utilitarian Theory of Value', *Utilitas* 18 (2006), pp. 109–33, at 112n.

[17] Bentham, 'Preparatory Principles Inserenda' (UC lxix. 125). See also Bentham, 'Codification Proposal', p. 250: '*Rationale, indicates conduciveness to happiness*.'

[18] Bentham, 'Table of the Springs of Actions: Marginals', p. 43.

[19] Bentham, 'Table of the Springs of Actions: Marginals', p. 58.

[20] Bentham, 'Table of the Springs of Actions: Marginals', p. 51.

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For Bentham's theory of legislation in general, and of punishment in particular, to achieve its goals, pleasures and pains must be not only identifiable, but comparable: that is measurable and commensurable. In so far as determinate values cannot be assigned to quantities of pleasure and pain, in so far as quantitative comparisons cannot be made between the pains and pleasures of one person and those of another, the signal advantage of the principle of utility as a tool of moral and political decision-making appears to be denied to it. As Schofield notes: 'If such comparisons are not possible, then utilitarianism loses its whole point.'[21] Bentham himself was dismissive of moralists who rejected calculation:

> No calculation! no calculation! exclaims the shallow and empty-headed sentimentalist, who, by ostentation of passion trusting to congenial weakness on the part of his reader, trusts . . . to draw reason out of the field.
>
> No calculation! as if the distinction of right and wrong – as if the determination of an act in respect of conduciveness or destructiveness to human happiness – depended on any thing else than calculation.
>
> In morals or politics, no calculation! in trade, as well might a man cry, no taking of stock! no keeping of accounts: thus thinking to save all for the benefit of economy – of economy in trade.[22]

II. THE PROBLEM OF MENSURATION: WEIGHING PLEASURES AND PAINS

In chapter IV of *IPML* Bentham provides a set of instructions for use in calculating the value of a lot of pleasure or pain. The essential qualities of any pleasure or pain, which in combination determine its value, are listed as five: intensity, duration, certainty, propinquity and extent.[23] The value of any pleasure or pain to an individual experiencing it is equal to its intensity, that is the degree of force with which the sensation manifests, multiplied by its duration. With regard to the present value of future pleasures or pains, that is pleasures and pains in prospect, that value is equal to the value which they would possess if they were indeed present (that is if the individual were experiencing them at this moment), discounted according both to the degree of uncertainty that

[21] P. Schofield, *Bentham: A Guide for the Perplexed* (London, 2009), p. 59. See also Schofield, *Utility and Democracy: The Political Thought of Jeremy Bentham* (Oxford, 2006), pp. 41–4.

[22] Bentham, 'Not Paul, but Jesus, Vol. III. Doctrine' (UC clxi. 322), <http://www.ucl.ac.uk/Bentham-Project/publications/npbj/npbj.html> (2013), p. 66.

[23] Bentham lists two further elements, fecundity and purity, that is, the tendency of a sensation to be followed by sensations of the same or the opposite character respectively, but as he himself admits, neither element strictly relates to the present sensation, but rather to the tendency of an act to produce future sensations: see *IPML* (*CW*), p. 39.

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the sensation will occur, and to the distance in point of time which separates the individual from the experience of it.[24] In regard to the uncertainty discount, the mathematics of probabilities provides the appropriate rate: a pleasure which I have an even chance of enjoying in the future is worth exactly half of its value as currently experienced. In regard to the propinquity discount, the rate of interest of money supplies the rate: if the interest rate is 5 per cent, a pleasure the enjoyment of which begins a year hence is worth 95 per cent of the same pleasure if that enjoyment were to begin now.

The final relevant quality or dimension of a sensation is its extent. In relation to acts giving rise to pleasures or pains experienced by a plurality of persons, the individual calculation must be repeated in relation to every person affected by the act. If an act delivers pleasures or pains to the whole community, the calculation must be repeated in relation to them all, and the resulting individual totals of pleasure and pain aggregated.

> Take the *balance*; which, if on the side of *pleasure*, will give the general good tendency of the act, with respect to the total number or community of individuals concerned; if on the side of pain, the general *evil tendency*, with respect to the same community.[25]

Bentham makes the process sound simple. If adopted in discussions of reform of the law, it would seem to offer both intelligibility and exactness. The focus on the real entities, pleasures and pains, banishes reliance on rhetoric, and the promise of a single metric, consisting of homogenous pleasure on the plus side, and homogenous pain on the minus, seems to render law-making simply a matter of doing one's sums accurately. Early in his career, in 'Preparatory Principles Inserenda', Bentham considers the following case:

> When a Legislator or a Judge gives a thing to Titius in preference to Sempronius, a theorem that he ought to be able to prove is, that the happiness of the state, Titius and Sempronius both included, will be greater in the case of its being given, as he gives it, to Titius, than in the case of its being given to Sempronius.
> Now to do this he must sum up [4] accounts –
> 1st The pleasure resulting to Titius in the case of its being given to Titius.
> 2d The pains if there are any resulting to Titius, upon its being given to the same Titius.

[24] See Bentham, 'Codification Proposal', pp. 251–2.

[25] Bentham, *IPML* (*CW*), p. 40. The tendency of an action is determined by its predicted consequences for the pleasures and pains experienced by sentient beings. See *IPML* (*CW*), p. 74: 'The general tendency of an act is more or less pernicious according to the sum total of its consequences: that is, according to the difference between the sum of such as are good, and the sum of such as are evil.'

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3dly The pleasure, if there be any, resulting to the rest of the Society in the case of its being given to the same Titius, rather than Sempronius.
4th The pain or danger, if there be any, resulting to the rest of the society from its being given to Titius in preference to Sempronius.
The clear quantity of pain or pleasure which remains after the sum of all these pleasures be subtracted from the sum of all these pains, or the sum of the pains from that of the pleasures, according as which sum turns out the greatest, will be the amount of the pleasure resulting to the society in the case of the thing's being given to Titius.[26]

It will be argued here that Bentham remained committed, in principle, to calculating the value of pains and pleasures throughout his career, and that his instructions concerning how to do it also remained consistent.[27] What prevents him from applying the process and claiming determinacy for the results is his awareness of the inherent difficulties involved in it. The examination of those difficulties forms the subject matter of the remainder of this article.

Tom Warke argues first that Bentham in fact rejected the idea that the sum of the quantities of pleasure and pain arising from an action could be assigned a determinate cardinal value, and second, that for Bentham, even ordinal comparisons between pleasures remained inescapably indeterminate.[28] The relevant difficulties applied not merely to the sort of interpersonal comparisons which were the province of the rule-maker, but also to the intrapersonal calculations made by prudential agents in cases where only their own interests were affected. Warke's Bentham 'consistently recognizes' two discrete characteristics of pleasures and pains which rendered quantitative calculations impossible. In the first place, the dimension of intensity, to allow Bentham to speak for himself, 'is not susceptible of precise expression: it *not* being susceptible of measurement'.[29] The problem can be illustrated by contrasting intensity with duration, which is susceptible of precise expression through the medium of time. Time is measured by a clock, and is divisible into infinitesimal fractions of a second, but no comparable instrument exists for generating a number representative of the psychic force with which a particular sensation strikes us. 'There is no marking out by any description a determinate lot of pain or pleasure: nor, were such an aliquot marked out, is there

[26] UC lxix. 197.

[27] For a treatment of the dimensions of sensation which pre-dates *IPML* see UC xxvii. 32–5 (published in D. Baumgardt, *Bentham and the Ethics of Today* (Princeton, 1952), pp. 554–8). For a much later version of essentially the same procedure, see 'Codification Proposal', pp. 250–7.

[28] See T. Warke, 'Multi-Dimensional Utility and the Index Number Problem: Jeremy Bentham, J. S. Mill and Qualitative Hedonism', *Utilitas* 12 (2000), pp. 176–203, at 180–8.

[29] Bentham, 'Codification Proposal', p. 254.

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any way of knowing whether it subsists or not in a given subject.'[30] A crucial determinant of the pleasure or pain derived from any particular experience remains therefore inescapably indeterminate, idiosyncratic and immeasurable. Since human agents vary in a host of ways relevant to the determination of their sensibilities, it is difficult if not impossible to compare the degrees of intensity of pleasure or pain experienced by a plurality of persons as a result of their encounter with an identical pleasure- or pain-provoking circumstance.

In addition, even in an analysis excluding everyone but a single experiencing agent, that agent himself lacks a common denominator of intensity by means of which to 'compare precisely and aggregate definitively the intensities of their own responses to different types and mixtures of pleasure and pain'.[31] Further, individual sensibilities can change, and change significantly, over even short periods of time, depending upon the operation of a host of factors. Thus, for instance, we discount familiar experiences, whether pleasurable or painful, while our sensitivity to any individual exciting cause of sensation depends in part on the number and strength of competing exciting causes which are operating simultaneously with it.

Even if the problems of intrapersonal indeterminacy were to be overcome, the legislator faces a further problem in weighing the sensibilities to pain and pleasure of different persons. Almost every fact adducible about persons, whether internal or external, is capable of acting as a circumstance influencing sensibility. Bentham lists thirty-two such circumstances, ranging from internal physical or mental states such as health, knowledge and bent of inclination, to clearly external but still personal factors such as connections in the way of sympathy and antipathy and pecuniary circumstances, to very broad social factors like climate and government. If, through the influence of these circumstances, people differ in their capacities for experiencing pleasures and pains, maximizing the net balance of pleasure over pain across a plurality of agents might mean giving extra resources to those particularly capable of deriving pleasure from them, or to those particularly susceptible to pain from the lack of them. Bentham does have a difficulty in this respect. On the one hand, in so far as circumstances of sensibility materially influence the value of sensations, an accurate calculation of that value must take them into

[30] UC lxix. 41. See also UC cxliii. 39, containing notes for Bentham's theory of punishment, where he contrasts pleasure and pain with money precisely with reference to its divisibility: 'Money is divisible into parts capable of being numbered: pleasure or pain itself is not.'

[31] T. Warke, 'Classical Utilitarianism and the Methodology of Determinate Choice, in Economics and in Ethics', *Journal of Economic Methodology* 7 (2000), pp. 373–94, at 380.

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account. On the other, not only can no general rule take cognizance of the multiplicity of individual differences in sensibility, but the legislator is in no position to garner the assemblage of data necessary to reveal those differences. Warke argues that Bentham, in the person of the legislator, imposes an equal weighting on the varying sensibilities of human beings. There is truth in this, although Bentham's rationale for equal weighting has more to do with the absence of data which might inform legislative decision-making than with an explicit endorsement of an egalitarian moral principle. As will be seen later, Bentham's legislator is expected to accommodate circumstances of sensibility to a limited extent, but also begins with a presumption of equality in sensibility, which is itself derived from the lack of sufficient knowledge to weigh differences in sensibility accurately: 'Of individuals it is clear that the legislator can know nothing: concerning those points of conduct which depend upon the particular circumstances of each individual, it is plain, therefore, that he can determine nothing to advantage.'[32] The refusal to accommodate such differences leads directly to the presumption that they do not exist:

> Faute de pouvoir déterminer le degré relatif de bonheur dont différents individus sont susceptibles, il faut partir de la supposition que ce degré est le même pour tous. Cette supposition, si elle n'est pas exactement vraie, approchera au moins autant de la vérité que toute autre supposition générale que l'on pourroit mettre à sa place.[33]

In relation to the direct measurement of the intensity of pains or pleasures as experienced by human beings, Bentham himself simply notes that there is no upper limit to the intensity with which a particular sensation is experienced,[34] but nowhere anticipates the development of any metric for its direct measurement.[35] The possibility

[32] Bentham, *IPML* (*CW*), p. 290.

[33] Bentham, 'Considerations d'un Anglois sur la composition des États-Généraux', *Rights Representation and Reform: 'Nonsense on Stilts' and Other Writings on the French Revolution*, ed. P. Schofield, C. Pease-Watkin and C. Blamires (Oxford, 2002 (*CW*)), pp. 63–146, at 68.

[34] See UC xxvii. 33 (in Baumgardt, *Bentham and the Ethics of Today*, p. 555). In an essay 'Des Lotteries', in contrasting the pleasure derivable from the hope that one is holding a winning ticket with the momentary pain arising from the realization that one is holding a losing ticket, Bentham alludes to the difficulty of weighing pleasures which are valuable chiefly through their intensity, against pleasures which are valuable chiefly through their duration: 'Avouons pourtant qu'il est difficile de faire une équation entre un dont la valeur est principalement en intensité, et un autre dont la valeur est principalement en durée. Mais est-il croyable que dans les tempéraments les plus mélancoliques, le regret momentané qui résulte d'un billet blanc puisse l'emporter sur le plaisir si prolongé qu'aura donné l'espérance d'un billet fortuné? Je ne saurois me le persuader' (Bibliothèque de Genève, Ms. Dumont 51, fol. 63).

[35] It is worth noting that the modern use of cognitive behavioural therapy in the treatment of depression and other aspects of mental distress makes extensive use, both

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of indirect strategies for the measurement of intensity will be discussed below, but this part of Warke's case is absolutely unassailable: Bentham openly admitted that a fine-grained assessment of the intensity of particular pleasures or pains is unavailable. Even with reference to the introspective assessment of a single agent, human reasoning remains 'fuzzy', and far removed from the tidy assumption of complete and transitive preference orderings which characterizes modern economic theory.[36]

For Warke's Bentham, the second characteristic of pathematic sensations which renders their determinate measurement or rank ordering impossible is that pleasures and pains are not homogeneous manifestations of the same generic psychic entities – and thus theoretically commensurable, allowing for transitivity in choice between them, and for trade-offs at fixed rates of exchange – but rather particular and heterogeneous entities, which lack any common metric: 'An individual faced with alternative mixes of pleasures and pains has no natural common denominator – no *generic* pleasure – by which to compare and rank order them unambiguously.'[37] Indeed, Warke makes it a fundamental axiom of classical utilitarianism that: 'Happiness for a human being is irreducibly multi-dimensional, with a distinct dimension for each type of pleasure and for each type of pain.'[38] Whatever the problems of intensity, this axiom would seem completely to undermine any possibility of calculation, however indeterminate. If pleasures and pains are typically incommensurable, it seems that the utilitarian desire to calculate consequences in terms of quantities of these real entities is doomed to fail.

Warke argues that Bentham asserted the incommensurability between different species of pleasure and pain 'throughout his writings', and cites in evidence Bentham's penchant for exhaustive classification of different varieties of pleasure and pain. An obvious difficulty for this interpretation arises from the fact that Bentham flatly

diagnostically and therapeutically, of the patient's ability to measure and report the intensity of her emotional states. Before treatment, the responses to a series of scaling questions establish the existence and severity of the depression. During treatment, scaling questions are consistently repeated, and any reduction in severity used to inform the patient's understanding that things can get, and, if things go well, are getting, better. See, for instance, A. T. Beck, C. H. Ward, J. Mock, J. Erbaugh, 'An Inventory for Measuring Depression', *Archives of General Psychiatry* 4 (1961), pp. 561–71.

[36] See Warke, 'Classical Utilitarianism and the Methodology of Determinate Choice', p. 383 and n.

[37] T. Warke, 'Mathematical Fitness in the Evolution of the Utility Concept from Bentham to Jevons to Marshall', *Journal of the History of Economic Thought* 22 (2000), pp. 5–27, at 11. See also 'Classical Utilitarianism and the Methodology of Determinate Choice', pp. 375, 380.

[38] See T. Warke, 'A Reconstruction of Classical Utilitarianism', *Journal of Bentham Studies* 3 (2000), <http://www.ojs.lib.ucl.ac.uk/index.php/jbs/article/view/16>.

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and repeatedly contradicts it. Thus in *IPML* Bentham is quite explicit that pain and pleasure are 'names of homogenous real entities'.[39] In *Rationale of Judicial Evidence*, Bentham lists a series of tutelary motives influencing witnesses, and explains: 'These several species of interest are termed different species, not as corresponding to so many different species of pain or pleasure, but to pain or pleasure in general, considered as apt to flow from so many distinguishable sources.'[40]

With reference to chapter V of *IPML*, Warke asserts that: 'Given his meticulous use of language, Bentham's adoption of the term "species" for kinds of pleasure (or pain) is significant.'[41] However, the term 'species' occurs exactly once in this chapter, where it is clearly a synonym for both 'sort' and 'kind'.[42] The rationale for Bentham's adoption of the term 'species' simply does not depend on any assertion that different species of pleasure possess distinct dimensions. Thus in 'Preparatory Principles Inserenda' Bentham lists pains and pleasures among indefinable *genera generalissima*, and continues:

> They cannot be defined. But words expressive of simple ideas that are species of them may. They may any of them by the assignment of some one of these as its Genus, together with some circumstance establishing a specific difference. As a Head Ache is a species of pain felt in the head. Non-definability of the term depends not therefore altogether upon the simplicity of the idea. It is not the idea of any individual pain, external motion &c. that gives us the whole idea we annex to those words in all the latitude in which they are applied. But we are equally acquainted with a vast number of individual simple ideas that come equally under that general denomination.[43]

Thus a headache is a species of pain located in the head, whereas, for instance, a backache is a species of pain located in the back! In terms of implied incommensurability, absolutely nothing follows from the fact of specific difference. The name of each variety or mode of pain refers to a simple idea, which is easily definable *per genus et differentiam* with reference to the superior genus pain, itself also understood to be a simple idea.

Warke employs the following quotation from 'Codification Proposal' to illustrate the heterogeneity of pleasures and pains: 'The elements of happiness are *pleasures* and *exemptions from pains*: individual

[39] Bentham, *IPML* (*CW*), p. 53n.

[40] Bentham, *Rationale of Judicial Evidence, Specially Applied to English Practice* (henceforth *RJE*), 5 vols. (London, 1827), vol. 5, p. 636 (Bowring, vols. 6, pp. 189–585, and 7, pp. 1–644, at vol. 7, p. 569).

[41] Warke, 'Multi-dimensional Utility and the Index Number Problem', p. 180n.

[42] Bentham, *IPML* (*CW*), p. 46. 'Mode' is another often-used Benthamic synonym for 'species' or 'kind'.

[43] Bentham, 'Preparatory Principles Inserenda' (UC lxix. 219).

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pleasures, and exemptions from individual pains.'[44] However, nothing in this formulation implies heterogeneity or incommensurability of pleasures or pains. Why does Bentham stress 'individual' pleasures and pains? Because human experience is analyzable precisely into individual pleasures and individual pains, and because – in a legislative or judicial decision, or indeed in any rational prudential decision – each relevant pleasure or pain must be taken into account. The assertion that happiness consists in individual pleasures is simply not equivalent to the assertion that individual pleasures belong to distinct and incommensurable species:

> The value, therefore, of a pleasure in a single person and standing singly, *that is apart from every other sensation, from every other pleasure and from every pain of the same person*, is composed as it were of four ingredients.[45]

That there are a multiplicity of relevant pleasures and pains that are too often omitted from such calculations Bentham has no doubt, hence one reason for his enthusiasm for lists! Whether or not the value of an individual pleasure can be accurately calculated, what is certain is that leaving relevant pleasures out of the calculation altogether (either by omitting some pleasures of the individuals whose interests are admitted to be at stake, or by not admitting that the interests, and hence the pleasures and pains, of other individuals are at stake) is a sure recipe for reaching the wrong answer.

It has been pointed out by many commentators, however, that despite the seeming promise of determinacy, Bentham appears more interested in providing exhaustive lists of considerations relevant to a decision than in applying those considerations in actually making a decision. Halevy noted this,[46] while Mitchell neatly personifies the alleged shift: 'Bentham himself was a classifier rather than a calculator; he came nearer being the Linnaeus than the Newton of the moral world.'[47] Pitkin notes that Bentham, in his anxiety to include all relevant considerations, 'provides an exhaustive checklist of considerations to keep in mind, but no way of rank ordering them'.[48] In fact, any attempt

[44] Bentham, 'Codification Proposal', p. 251. The formula is indeed repeated in several places: see, for instance, 'A Table of the Springs of Action', in *Deontology* (*CW*), pp. 74–115, at 76.

[45] UC xxvii. 29 (emphasis added).

[46] See E. Halevy, *The Growth of Philosophical Radicalism* (London, 1928), p. 32: 'Must we not admit that in Bentham the taste for classification has got the better of the analytical spirit?'

[47] W. Mitchell, 'Bentham's Felicific Calculus', *Political Science Quarterly* 33 (1918), pp. 161–83, at 182.

[48] H. F. Pitkin, 'Slippery Bentham: Some Neglected Cracks in the Foundation of Utilitarianism', *Political Theory* (18) 1990, pp. 104–31, at 108. See also R. Harrison, *Bentham* (London, 1983), p. 162.

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at rank ordering not founded on quantification would, for Bentham, be a capricious and irrational absurdity, since the weight to be attached to any particular pleasure or pain in rational decision-making is a function of its value, which is itself a function of its intensity, duration, certainty, propinquity and extent.

For Sigot, Bentham's efforts at classification in fact constitute a second, distinct form of calculus.[49] The obvious problem with this thesis is that classification of pains and pleasures, or of circumstances influencing sensibility, is not an *alternative* form of calculus, but instead is not a calculus at all. The point of Bentham's exhaustive categorizations of pleasures and pains, or circumstances influencing sensibility, is simply to prevent the omission of relevant factors from calculation, which is to say that the source of his inveterate list-making is his recognition that the inclusion not only of all the pains and pleasures liable to arise from an act, but of the circumstances affecting the sensibility of all the people liable to experience them, is a necessary condition for making a correct estimate of the pains and pleasures liable to flow from it. Since all potential consequences in terms of pleasure and pain need to be included in the calculation, the task of scientific classification is the essential preparatory groundwork which needs to be completed before calculation can commence. Any Newton of legislation needs a Linnaeus to map the world of human feelings. For Bentham, classification and calculation simply do not constitute alternative species of the superior genus calculation, but discrete though related processes involving respectively the enumeration and categorization of potential inputs to calculation (i.e. classification), and the arithmetical determination of the value of those inputs (i.e. calculation).[50]

Any process of rational decision involves three related tasks, only one of which involves quantitative calculation. The first identifies what to count (the simple pains and pleasures of chapter V of *IPML*). The second, undertaken in chapter VI of *IPML*, draws attention to factors bearing directly on the inputs to calculation, both in terms of the sensibilities of persons unquestionably involved (the victim and the criminal) and in terms directing attention to sensations liable to be left out of account (for instance the pains experienced by the dependents and friends of the criminal or victim, and the secondary sensation

[49] N. Sigot, *Bentham et l'économie: une histoire d'utilité* (Paris, 2001), pp. 17–22, 153–8.

[50] For insightful discussions see A. Baujard, 'A Return to Bentham's *Felicific Calculus*: From Moral Welfarism to Technical Non-welfarism', *The European Journal of the History of Economic Thought* 16 (2009), pp. 431–53, at 435–7, and M. Guidi, 'Jeremy Bentham's Quantitative Analysis of Happiness and its Asymmetries', *Handbook of the Economics of Happiness*, ed. L. Bruni and P. L. Porta (Cheltenham, 2007), pp. 68–93, at 74.

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of alarm experienced by those with no connection to the offender or victim). The third undertakes the calculation, with reference to the dimensions of pleasures and pains laid out in chapter IV of *IPML*.

There are indeed great difficulties in calculating pleasures accurately, of which the indeterminacy of intensity is only one, but the notion that all pleasures and pains possess distinct dimensions which make them *in principle* incommensurable would render all of Bentham's ambitions in the direction of calculation unachievable at a stroke. As argued above, for Bentham all value derives from the binary opposition between pleasures and pains. Without doubt human beings derive pleasure from an intimidating variety of objects, acts, experiences, relationships and states of affairs, but Bentham's entire theory collapses if the psychological sensations at its root typically come in multiple incommensurable forms, since the incommensurability of pleasures and pains renders rational action, based on rational decision-making as he understands it, quite impossible.[51] A pleasure of greater value is preferable to one of lesser value, and, leaving certainty and propinquity aside, quantity is synonymous to value:

> According to the principle of utility, taking in its entirety the whole mass of pleasure in question – presence or, in case of absence, propinquity and certainty, i.e. probability, being given or out of the question – *quantity is the sole measure of value*.[52]

As Bentham wrote in response to commentators who elevated mental pleasures over bodily ones because they were 'nobler':

> But by this word more *noble* what is meant? either it means *greater*, viz. in respect either of intensity or duration, or it means nothing and is so much nonsense. Take any pleasure of the body and compare it with a pleasure of the mind: if it is not greater but less, here then in case of competition is a reason – a genuine reason for taking up the pleasure of the mind and letting go the pleasure of the body: if not less but greater, here then is no sufficient reason for letting go the pleasure of the body.[53]

Moral reasoning may indeed be fuzzy, and less determinate than Bentham sometimes implies, but to abandon any attempt at

[51] If pleasures and pains are typically heterogeneous, the whole notion of combining their values quantitatively becomes, as Warke notes, like adding apples and oranges ('Multi-dimensional Utility and the Index Number Problem', p. 180n.). Consider then the following, from Bentham's contrast between the utilitarian and 'moralist' concerning the relation of pleasure to happiness: 'Of happiness, sole elements or ingredients: pleasures (and exemptions). As of a *pound*, pence' ('Table of the Springs of Action: Marginals', p. 60).

[52] 'Not Paul, But Jesus, Vol. III' (UC clxi. 245), <http://www.ucl.ac.uk/Bentham-Project/publications/npbj/npbj.html>, p. 18 (emphasis added).

[53] 'Not Paul, But Jesus, Vol. III' (UC clxi. 259), <http://www.ucl.ac.uk/Bentham-Project/publications/npbj/npbj.html>, p. 20.

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quantification, is, for Bentham, to abandon reason. Further, from a Benthamic perspective, any process of ordinal ranking in fact presupposes prior cardinal quantification, since the ability to rank options in order of preference, in so far as it is not the product of mere caprice, itself assumes a previous process, however imperfect, of calculation of quantities. Without quantification, there simply can be no rational ranking of outcomes, since the comparison between those outcomes' respective net balances between pleasurable and painful sensations is what Bentham means by rationality.

III. MEASURING INCOMMENSURABLES BY PROXY

Money

In modern economics, determinate choice is deduced from the assumption of complete and transitive preference orderings, measurable on a one-dimensional scale of utility. In welfare economics and cost-benefit analysis, cardinal measurements are provided for by translating preferences into money values, which again have the signal advantage of being one-dimensional. The law and economics movement also seeks to analyse and quantify behaviour in terms of money value. For Warke, Bentham did consider, but quickly rejected, the translation of the different dimensions of pleasure and pain into the single currency of money.[54] Certainly in the 1770s, before writing *IPML*, Bentham advanced the claim that there was a common metric according to which the values of different pleasures and pains could be measured, and that that metric was constituted by money:

> If then, speaking of the quantity of various pains and pleasure[s] and agreeing in the same propositions concerning them we would annex the same ideas to these propositions, that is if we would understand one another, we must make use of some common measure. The only common measure the nature of things affords is money. How much money would you give to purchase such a pleasure? 5 Pounds and no more. How much money would you give to purchase such another pleasure? 5 pounds and no more. The two pleasures are equal. How much money would you give to purchase immediately such a pleasure? 5 Pounds and no more. How much money would you give to exempt yourself immediately from such a pain? 5 pounds and no more. The pleasure and the pain must be reputed equivalent.[55]

Bentham does here prefigure both the notion of willingness to pay, and that of indifference between pleasures, or between combinations of pleasures and pains, as indicative of equality in value, which lie at the heart of contemporary cost-benefit analysis and micro-economics

[54] Warke, 'Multi-dimensional Utility and the Index Number Problem', p. 182.
[55] UC xxvii. 36–7 (in Baumgardt, *Bentham and the Ethics of Today*, p. 561).

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respectively. Centrally, indifference between two pleasures, only the first of which possesses a money value, indicates the money value of the second:

> If then between two pleasures, the one produced by the possession of money, the other not, a man had as lief enjoy the one as the other, such pleasures are to be reputed equal. But the pleasure produced by the possession of money, is *as* the quantity of money that produces it: money is therefore the measure of this pleasure. But the other pleasure is equal to this: the other pleasure thereof is as the money that produces this: therefore money is also the measure of that other pleasure. It is the same between pain and pain; as also between pain and pleasure.[56]

Lieberman and Harrison both rightly point out that Bentham dismissed as a vulgar error the notion that 'nothing has its value with mankind but money'.[57] However, the assertion that the variegated array of things valued by human agents can be represented in money terms is not equivalent to the assertion that only money has value. Bentham's assertion in the early manuscript is different: it is that widely different pleasures can be rendered commensurable by attaching a monetary value to them.[58] Bentham needs a metric, and money, that is willingness to pay, provides it. The agent's indifference between pleasures or between pains indicates the equivalence to the agent of the pleasures or pains in question. Money is not the instrument or cause of all pleasures, but all pleasures, regardless of their instrument or cause, can be ascribed a monetary value:

> From what source such pleasures or such pains may issue, whether the pleasure consist in drinking so many bottles of wine, in enjoying the favours of such a woman, in possessing the respect or good will of such a man, in relieving such an object in distress, in doing such a service to one's country or to mankind in general, in revenging one's self in such a manner upon such a person; whether the pleasure be in consequence productive of pleasure, or of pain or of neither: the pain [productive] of pain or of pleasure or of neither (in a word whether they be fruitful, pure, or insulated) are circumstances which so long as the pains or pleasures in question be considered *in themselves* (and without regard

[56] UC xxvii. 36 (in Baumgardt, *Bentham and the Ethics of Today*, p. 560).

[57] Bentham, *Draught of a New Plan for the Organisation of the Judicial Establishment in France* (London, 1790), p. 46 (Bowring, vol. 4, pp. 285–406, at 375); D. Lieberman, 'Economy and Polity in Bentham's Science of Legislation', in *Economy, Polity, and Society: British Intellectual History 1750–1950*, ed. S. Collini, R. Whatmore and B. Young (Cambridge, 2000), pp. 107–34, at 123; Harrison, *Bentham*, pp. 161–2.

[58] See further UC xxvii. 36 (in Baumgardt, *Bentham and the Ethics of Today*, p. 560): 'Of such pleasure then as is produced by the bestowal of money, and of such pain as is produced by taking it away, money is the direct and proper measure: and being not only the measure, but the producing instrument or cause. But of a pleasure or a pain produced by any other cause, money though not the cause may be the measure; if not the direct one yet an exact and proper one, and the only one such pain or pleasure will admitt of.'

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to consequences) make no difference with respect to the propriety of speaking of them, as being in money of such a value.[59]

A further connection between pleasures directly measurable in money (that is pleasures derivable from real physical entities), and pleasures not directly so measurable (that is pleasures derivable from the fictitious entities 'power, condition and reputation') is that 'Money is also, directly or indirectly a means of acquiring those.'[60] There is no assertion here that power, condition and reputation are identical with money, but there is a link in so far as money is a generic means of purchasing every conceivable physical means of pleasure and avoidance of pain, and also a means or cause of acquiring power, honour and reputation.[61]

However, no mention of money as the measure of pleasures and pains appears in *IPML*, and indeed no fine-tuned calculation of the profits of crime and the pain of punishments appears there either. Bentham does discuss money as a metric for measuring pleasures and pains in *Of the Limits of the Penal Branch of Jurisprudence*, originally written as a continuation of *IPML*. Here, in seeking to distinguish between the Civil and the Criminal Law, Bentham selects as his line of demarcation the necessity or otherwise of punishing offences 'with some extraordinary degree or species of punishment'.[62] He goes on to explain that

> Under the name of ordinary punishment may be comprised the least proportion of punishment that can in any case be made use of in point of quantity, and consequently of the mildest quality: that is pecuniary punishment: and that in such proportion as but just to outweigh the profit of the offence.[63]

In other words, in order for the legislator to achieve the fine-tuning promised by Bentham's theory of punishment, the 'profit' of the offence has to be understandable in the ordinary sense of the word, that is pecuniary gain. Of course, indigent offenders possess no resources on which to draw to pay fines, which is why another punishment, of the

[59] UC xxvii. 37 (in Baumgardt, *Bentham and the Ethics of Today*, p. 561).

[60] UC xxvii. 35 (in Baumgardt, *Bentham and the Ethics of Today*, p. 558).

[61] In *The Rationale of Reward* (London, 1825), p. 72 (Bowring, vol. 2, p. 213), Bentham notes that reward given in money may in fact bring dishonour, as is the case in relation to the service provided by 'informers' in England. Bentham consistently berates the English for their idiotic attitude to such servants of justice, who undertake the prosecution of offences where 'no individual has any peculiar interest in prosecuting', and argues that their service is such as should instead lead the public to bestow honour and respect upon them. His proffered solution to the difficulty is to withdraw the 'reward', and with it the plausibility of ascribing venality to their motivation, and to offer indemnification of the expenses of prosecution instead.

[62] Bentham, *Of the Limits of the Penal Branch of Jurisprudence* (henceforth *Limits*), ed. P. Schofield (Oxford, 2010 (CW)), p. 203.

[63] Bentham, *Limits* (*CW*), p. 203.

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next mildest nature, such as imprisonment, may have to be substituted in the case of such offenders.[64] Bentham continues:

> It is to be observed that it is only where the profit of the offence is all of it pecuniary that there can be any very entire certainty of outweighing it by a given quantity and mode of punishment. When what a man gets by his offence is money and nothing else, take from him that money and so much more, and you may be certain enough of not leaving him a gainer. But when the profit is any part of it not pecuniary, there the case is different. Take, for example, the case where the motive, or one of the motives, is ill-will, and the profit of the offence is the gratification of the irascible appetite. A man falls upon you and beats you: what pecuniary loss is there that you could be sure would give him just so much pain as the satisfaction of giving vent to his ill-will promised to afford him pleasure. It is plain that, between quantities so incommensurate, there is no striking a sure balance.[65]

For a theory which seemed to promise a rational fine-tuning of punishments, this is a quite extraordinary admission, which lays bare the limits of Bentham's expectations of quantitative exactitude: only where all the relevant pleasures and pains are straightforwardly expressible in money terms is the process simple, or, to use Bentham's word, 'ordinary'. As soon as other pleasures or pains enter into the equation, as soon as the profit to the offender involves the pleasure of inflicting damage on the person or reputation of the victim, the calculation becomes 'extraordinary'. Since the profit of many crimes is pecuniary, and since 'at all times, every man, more or less, loves money',[66] fine-tuning may be possible in the determination of punishments across a significant range of 'ordinary' cases. However, since other interests than the pecuniary apply in causing crimes, and since other pains than loss of money are the result of crimes, the promise of exactness across the whole field of penal theory has turned out to be explicitly unfulfillable. Warke may overestimate the extent to which Bentham believed pleasures and pains to be heterogeneous,

[64] In *Rationale of Punishment*, p. 418 (Bowring, vol. 1, p. 518), Bentham bases the calculation of the rate of exchange between a sum of money and a period of imprisonment on the average daily earnings of the offender. The recognition that only fines provide direct measures of costs to offenders punished, and that a rate of exchange needs to be established between time in prison and fines, is repeated by theorists of the law and economics movement: see G. S. Becker, 'Crime and Punishment: An Economic Approach', *Journal of Political Economy* 76 (1968), pp. 169–217, at 179.

[65] Bentham, *Limits* (*CW*), pp. 204–5. Exactly the same contrast between cases where calculating the appropriate pecuniary satisfaction for the victim is rendered straightforward by the homogeneity of the evil (pecuniary loss) and the remedy (pecuniary compensation), and cases where financial compensation is inappropriate because the calculation of the appropriate level of compensation may be impossible, is highlighted in 'Political Remedies for the Evil of Offences', Bowring, vol. 1, pp. 367–88, at 373, where Bentham confirms that the pains of damage to honour at least may not be measurable in money terms.

[66] Bentham, *IPML* (*CW*), p. 155n.

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but he is correct in asserting that Bentham did recognize that between some significant pleasures and pains at least there is no generalizable rate of substitution or exchange.[67] However, the recognition that the process of calculation is imperfect does not constitute a rejection of the attempt to calculate. As Bentham noted some thirty years later:

> Of evil, in none of these its shapes, it is but too evident, can any exact measure be taken: on this as on so many other subjects, instead of the strong and steady lights to which all wishes ought to point, we must content ourselves with such glimmerings as can be collected.[68]

In fact, Bentham always remained attracted to the strategy of using money as a metric according to which pleasures and pains might be quantified, even whilst explicitly recognizing its imperfections. In his writings on evidence, Bentham notes that trustworthiness in testimony depends on the relative strength of the witness's motives for lying and for telling the truth. Bentham lists ten pleasures and eight pains which give rise to interests 'most likely to be exerted on testimony'.[69] Now the force of the pecuniary interest is measurable,[70] but the force of the other interests, unless operative in a context wherein the force shows itself indirectly, remains hidden.

> Enmity, like any other passion, is variable *ad infinitum* in degree. . . . But the force of enmity, as of almost every other passion except the love of money, can no otherwise be measured than by its effects: so that if in this or that instance no visible effects have followed from it, the only proof of which the existence and action of it is susceptible is wanting to the case. In the instance of pecuniary interest, the argument stands upon a very different footing.[71]

[67] It is tempting to speculate on Bentham's reaction to recent research in neuroscience, which may offer a future prospect of the objective measurement of the intensity of a wide range of pleasurable or painful sensations by measurement of the degree of stimulation of the pre-frontal cortex. In that the realization of this prospect would potentially resolve both the major difficulties in calculating the values of pleasures and pains, it seems plausible to infer that he would have been very excited indeed. See, for instance, R. J. Davidson, D. C. Jackson, N. H. Klein, 'Emotion, Plasticity, Context, and Regulation: Perspectives From Affective Neuroscience', *Psychological Bulletin* 126 (2000), pp. 890–909, at 904: 'Understanding how feeling is instantiated in the brain and using the brain's architecture to meaningfully parse the domain of emotion is now possible through the modern methods of neuroscience.'

[68] Bentham, 'Of Sexual Irregularities' (UC lxxiv. 139), in *Of Sexual Irregularities, and Other Writings on Sexual Morality*, ed. P. Schofield, C. Pease-Watkin and M. Quinn (Oxford, 2014 (*CW*)), pp. 1–45, at 29.

[69] Bentham, *RJE*, vol. 5, p. 629 (Bowring, vol. 7, p. 567).

[70] Bentham lists the force of a second motive, namely 'aversion to labour', as being in principle measurable, but discards it immediately as being subject to a set of variables (namely the quality of the labour and the idiosyncrasies of individuals) that render 'quantity of labour . . . but an imperfect and incompetent subject of mensuration'. See *RJE*, vol. 5, pp. 633–4 (Bowring, vol. 7, p. 568).

[71] *RJE*, vol. 5, p. 48 (Bowring, vol. 7, p. 397).

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The peculiarity of the pecuniary interest is that its strength is 'commodiously measurable' in the metric of money. However, as Bentham candidly admits, the strength of other motives is not directly measurable.[72] English law, which excluded the testimony of interested parties, meaning by interested those with a financial stake in the outcome, therefore adopted precisely the wrong attitude. Bentham sets his face against the exclusion of any evidence, but in making his case for hearing from those who stand to gain or lose money from a verdict, the problems in calculating the intensity of pains and pleasures purely psychological become absolutely stark. His insistence is that financially interested parties are the least objectionable witnesses, since in their case the motives to perjury are obvious and quantifiable, and the jury has a basis for making an estimate of the probable truth of their testimony:

> All witnesses being exposed to seductive influence, all witnesses being dangerous, those will be least dangerous against whom men are most upon their guard: such are those, on whose foreheads the force of the seduction is written down in figures. A cloud involves the workings of friendship, a cloud involves the workings of enmity, a cloud involves the workings of love: the existence of the passion, the force of its action, everything is involved in darkness. No juryman, no stranger, scarcely even the closest intimate, can form any estimate of the degree of the enmity, the friendship, or the love: experience may have shown him no such enmity, no such friendship, no such love. But every man knows what ten shillings is, what twenty shillings is, and what is the difference: every man knows the value, every man feels the power, of money.[73]

Again, it is the intensity of the antipathetic and sympathetic sensations, of hate and of love, which defies calculation. However, because wealth is the instrument for the acquisition of a wide range of pleasures (and of exemption from a wide range of pains), it sometimes happens that the strength of these other interests (and the strength thereby of the correspondent pleasures or pains in prospect which constitute the interest) are revealed in money terms. Where, for instance, a witness requires medical treatment to avoid the pains of disease, while such medical treatment costs money, which itself can only be got by tailoring the testimony to the demands of the party offering it,

> the interest by which the testimony is acted on . . . is neither more nor less than pecuniary interest; and . . . the force of it is proportioned to the pecuniary

[72] 'It is not with trustworthiness in psychology, as with temperature in physics; in which you can say not only, it was cooler yesterday at noon than today at the same hour; but by observation taken each day on the thermometer, you can express the difference, by numbering in each case of the degrees': Bentham, *RJE*, vol. 5, pp. 632–3 (Bowring, vol. 7, p. 568).

[73] Bentham, *RJE*, vol. 5, p. 53 (Bowring, vol. 7, p. 398).

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value of the several instruments in question – the instruments by which the pleasure is expected to be procured, or the pain removed.[74]

Notwithstanding his admission that cardinal measurement of the force of many interests is impossible, Bentham immediately argues that they may in fact be reducible to the pecuniary interest, and thus be rendered cardinally measurable: 'this measuring rule once obtained, – by reference to this (by means of the principle of commercial or commutative exchange) cases will happen in which the force of any other species of interest may by accident become susceptible of mensuration'.[75] Bentham then provides a specific example in which he manages to draw conclusions concerning the monetary value of just the sort of pleasure, the gratification of the irascible appetite, which is not directly measurable.

> For an injury done, or supposed to be done, the party injured prosecutes the supposed injurer. He knows beforehand, that . . . he will not, even in the event of his succeeding in the prosecution, receive satisfaction in any pecuniary shape: he understands, on the other hand, that the amount of the expense on his side is not likely to be less than £50. He prosecutes notwithstanding, and delivers his testimony. The interest by which he has been engaged to embark in this prosecution, is the interest created by that modification of the pleasure of antipathy, called the pleasure of revenge. Here then, not indeed the exact force of that interest, but the minimum of it, is given, and expressed in money. It is certain that it acts upon him with a force at least equal to £50; since he pays £50 for the purchase of a chance at it.[76]

As Guidi acutely recognizes, this discussion is an example of Bentham seeking to use monetary values as proxies for values which are not directly quantifiable.[77] In this case, just quite how much the vengeful party would have paid for the chance of slaking his antipathetic appetite remains unknown, but the inference that that chance is worth at least £50 to him follows from his readiness to pay that amount for his opportunity. The conclusion, while limited, is substantive. Provided that the instruments of hidden pleasures are purchasable, information about the values of those pleasures can be inferred from the money an individual is prepared to devote to securing them. Revealed preferences can, on occasion, be utilized to infer hidden values. Indeed, this is the only method that can be applied to draw conclusions about the incognoscible degree of intensity associated with any pleasure or pain. Reading backwards from individual decisions in

[74] Bentham, *RJE*, vol. 5, p. 632 (Bowring, vol. 7, p. 568).
[75] Bentham, *RJE*, vol. 5, p. 634 (Bowring, vol. 7, p. 568).
[76] Bentham, *RJE*, vol. 5, pp. 634–5 (Bowring, vol. 7, p. 569).
[77] M. Guidi, 'Bentham's Economics of Legislation', Dipartmento di Studi Sociali, Università degli Studi di Brescia, *DSS Papers* STO 1–97, p. 18 and n.

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this way allows conclusions to be drawn about intensity, even where no direct evidence is available. Thus the intensity of an individual's desire to study astronomy is revealed, at least in some measure, by his readiness or otherwise to pay the market price for a telescope.[78] However, it remains the case that the indirect measurement of intensity via the proxy of money depends upon the purely contingent possibility that the agent's enjoyment of a desired sensation is achievable only through means which do themselves have an obvious monetary value. Since this condition is not realized in every case, the intensity of many sensations will remain 'in darkness'.

In Bentham's own terms, there remain two further major difficulties with the proposal to use money as the measure of all pleasures and pains. The first difficulty in the inference of the value of pleasures from revealed preferences is that the real entities of pleasure and pain, which are supposed to facilitate clarity and provide the explanatory power, are not doing any discernible explanatory work. As Harrison points out:

> it means that the supposed sensation should be analysed in terms of the motive rather than the motive in terms of sensation. What makes all pleasures pleasures is that they are reasons for engaging in action, rather than what makes motives motives is that they are expectations of pleasure.[79]

To the extent that Bentham uses revealed preferences and willingness to pay as quantitative indicators of expected pleasures from action, he is assuming that all pleasures can be measured by a common metric, according to which determinate right answers can be generated which all utilitarians could unanimously endorse. In this mood, he clearly foreshadows both modern cost–benefit analysis and the law and economics movement, and like them, he is moving away from analysis of pleasures and pains, and towards the premise that what is at stake in politics and morality is actually want or preference satisfaction. Conversely, since not all pleasures and pains are in fact commensurable, determinate answers to moral and political questions become unavailable whenever a quantifiable pleasure or pain has to be weighed against an unquantifiable one. In this case, Bentham can still maintain that the only intelligible debate to be had is one carried on in

[78] Bentham, *RJE*, vol. 5, pp. 630–1 (Bowring, vol. 7, pp. 567–8).

[79] Harrison, *Bentham*, p. 149. See also pp. 148–9, where, in relation to the enumeration of pleasures in 'Table of the Springs of Action', Harrison comments that the different pleasures listed 'seem to have no more in common than that they are different motives to action'; and compare W. S. Jevons, *Theory of Political Economy* (Harmondsworth, 1970), p. 93: 'Call any motive which attracts us to a certain course of conduct, pleasure; and call any motive which deters us from that conduct, pain; and it becomes impossible to deny that all actions are governed by pleasure and pain.'

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terms of an estimation of the consequences of a law for the distribution of pleasures and pains, but cannot promise either determinacy or fine-tuning in the result. The advance over the principle of sympathy and antipathy remains an advance, in that it is always better to make sense than to spout groundless nonsense; but the fact that the values of at least some pleasures and pains are not expressible in the single metric of money sets strict limits on the aspiration to generate determinate answers to moral questions.

Even where money appears to be the undeniable instrument and measure of pleasures or pains, a second difficulty arises in so far as the value of any given quantity of money, as Bentham himself saw clearly, is itself variable, in that it is affected by not only the circumstances influencing sensibility in general, but by one such in particular, that is 'pecuniary circumstances'. As Harrison expresses the difficulty, 'money cannot be a direct measure of utility because the utility which a particular sum of money represents varies according to the wealth of the person being considered'.[80] As noted above, Bentham's general response to the varying sensibilities of human beings was simply to abstract from all differentiating circumstances, internal and external, when it came to matters of legislation:

> In speaking of the effect of a portion of wealth upon happiness, abstraction is always to be made of the particular sensibilities of individuals, and of the exterior circumstances in which they may be placed. Differences of character are inscrutable; and such is the diversity of circumstances, that they are never the same for two individuals. Unless we begin by dropping these two conditions, it will be impossible to announce any general proposition.[81]

Without this tactic, Bentham's legislative project could never get off the ground. He recognized the strict falsity of his generalization, but defended it as less false than any other available. Where better generalizations could be advanced, he was prepared to adopt them. Thus, in recognizing that quantitatively identical pecuniary punishments caused different pains to different people according to the amount of their fortune, Bentham, at least as edited by Dumont, proposed that proportional penalties obviated the difficulty in large measure:

[80] Harrison, *Bentham*, p. 158.

[81] 'Principles of the Civil Code' (Bowring, vol. 1, p. 305). The uncertainties over the provenance of the Civil Code writings do not extend to this passage. The original, in Bentham's hand and in Bentham's French, is at UC xxxiii. 5: 'Dans toutes ces propositions il faut faire abstraction tant[?] de l'idiopathie de l'individu que de toutes les circonstances exterieures on il peut se trouver, hormis celles don't resulte l'état de sa fortune. Car cette idiopathie était[?] inscrutable, et ces circonstances peuvent être différentes pour chaque individu, a moins d'on écarter la considération il n'y auroit pas moyens de former aucune proposition générale quelleconque.'

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> The pleasures which two men will be deprived of, by being made to lose each a given part (suppose a tenth) of their respective fortunes, will in *specie* perhaps be different: but this does not hinder that, in taking into the account quantity on the one hand, and actual expectations and probable burthens on the other, they may be the same: they will be the same as nearly as any two quantities can be made to be so by any rule of measuring. The supposition we are forced to follow is, that the quantities of pleasure men are capable of purchasing with their respective capitals are respectively equal.[82]

The new assumption remains strictly false, but is closer to the truth than the assumption that pecuniary circumstances have no differential impact on sensibility, which is the implication of refusing to take cognizance of such circumstances at all.

One of the desirable properties of a lot of punishment was equability. Lots of punishments which have different effects on different people are inequable in that the same lot of punishment which is devastating to one person has a much smaller effect on another. The problem applies to all varieties of punishment, so that a corporal punishment will inflict different pains on 'a stout young man, and an infirm old man',[83] while the effect of restrictive punishments like banishment will depend on the degree of attachment felt by the offender to the location from which he is to be banished.[84] Inequable punishments are not only unfair, but destroy the ability of the legislator to ensure that the pain of punishment is sufficient to outweigh the profit from the offence without inflicting needless pain on more sensitive offenders.

For all these reasons, Bentham recommended: '*That the quantity [of punishment] actually inflicted on each individual offender may correspond to the quantity intended for similar offenders in general, the several circumstances influencing sensibility ought always to be taken into account*.'[85] Since circumstances influencing sensibility played such a significant role in determining the effect of particular punishments, they had to be taken into account in the sort of fine-tuned judgements which the application of the principle of utility required. However, the

[82] Bentham, *Rationale of Punishment*, pp. 254–5 (Bowring, vol. 1, p. 469).

[83] Bentham, *Rationale of Punishment*, p. 83 (Bowring, vol. 1, p. 415).

[84] Bentham, *IPML* (CW), p. 176. In *Rationale of Punishment*, p. 112 (Bowring, vol. 1, p. 424), Bentham draws on his own sensibilities in making a plea for indulgence to imprisoned authors: 'Take away article and ink from an author by profession, and you take away his means of amusement and support: you would punish other individuals more or less, according as a written correspondence happened to be more or less necessary for their business or pleasure. A privation so heavy for those whom it affects, and at the same time so trifling for the greater number of individuals, ought not to be admitted in the quality of a punishment.'

[85] Bentham, *IPML* (*CW*), p. 169. See also *Rationale of Punishment*, p. 44 (Bowring, vol. 1, p. 403): 'In the preparation of a penal code, it ought constantly to be kept in view, that according to circumstances, of condition, fortune, sex, &c. the same nominal punishment is not the same real punishment.'

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legislator was not in a position to make fine-tuned adjustments, and the responsibility for making them rested less with the legislator than with the judge. Baujard argues that Bentham intended the legislator to apply an admittedly non-ideal proxy calculation of utilities through the use of money values to estimate utilities, subject to correction by reference to the observable secondary circumstances influencing sensibility.[86] Baujard relies on Dumont's recension of *IPML*, and it should be noted that Bentham's original explicitly contradicts the detail of this interpretation. Thus the legislator is indeed able to take account of some of the circumstances influencing sensibility, but not quite in the way envisioned by Baujard. Bentham does discuss the degree to which the circumstances can be taken into account, and does argue that some circumstances, which 'apply indiscriminately to whole classes of persons together', may be 'directly and pretty fully provided for by the legislator'.[87] However, Bentham begins his list of these circumstances with the *primary* circumstances of bodily imperfection and insanity, before adding the secondary circumstances of sex, rank, climate, lineage and religious profession, with the possible addition of age.[88] The legislator, then, is expected to build generic generalizations about differences in sensibility according to physical or mental disability, sex, class, race and religion into his laws. For instance, certification of insanity at the time of an offence immediately renders the case unmeet for punishment. Whilst Bentham's discussions of the circumstances of sex, race and rank are certainly rebarbative to today's sensibilities, they reflect the perceptions of his own day. In his defence, he would insist that the attraction of these circumstances lay precisely in their openness to observation: if our perceptions are inaccurate, better observation promises the prospect of correction.

Independently of the effort to factor in a limited amount of information concerning secondary circumstances, the legislator relies on the validity of generalizations about human psychology which are broadly true: no one likes being deprived of the freedom of movement by being imprisoned; no one likes paying fines. There is enough validity in these generalizations to make rule-making possible, and to point out obvious irrational inequities, such as the English rules which punished certain offences by the confiscation of moveable but never of immoveable property, which offered no deterrent to persons whose

[86] Baujard, 'A Return to Bentham's *Felicific Calculus*', pp. 443–5.

[87] Bentham, *IPML* (*CW*), p. 69.

[88] From Bentham's list of secondary circumstances education and government are omitted, whilst Bentham himself lists habitual occupations as a primary circumstance. It is interesting also to note the omission from the legislator's purview of the primary circumstance of pecuniary circumstances.

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wealth consisted primarily in immoveables. In addition, regardless of the limitations to the legislator's information which make fine-tuned calculations unachievable, straightforward rational inference supplies the basis of a critique of the severity of existing English law. Whatever the impact of the circumstances influencing sensibility, punishing robbery and theft with the same punishment encourages thieves to use violence or the threat of it, since the pain consequent upon conviction is not liable to be increased thereby.

Bentham distinguishes between the legislator and the judge precisely in terms of their ability to gain knowledge of the circumstances and of the sensibilities of individuals. While he instructs both the legislator and the judge to 'have an eye to all these circumstances',[89] he points out that only the judge is in a position to discover a host of particular facts relating to the circumstances affecting an individual's sensibilities. In addition to the information available to the legislator, the judge can assess individual sensibilities relating to the circumstances of health, strength, habitual occupations, pecuniary circumstances and connections in the way of sympathy.[90] For this reason, the judge is allowed a limited latitude in reducing sentences precisely in order to provide a degree of fine-tuning.[91] What sort of calculation does the judge utilize to this end? Precisely that serial calculation of the values of the sensations experienced by the parties affected which is set out in chapter IV of *IPML*.

Typically, Bentham's insistence is that, in varying the sentence as laid down in law, the judge should make public his reasons. The demand for publicity is closely connected with the desire to focus the argument on the publicly accessible facts about pleasures and pains: the pains inflicted on a delinquent's domestic connections by his punishment may not be minutely calculable, but the existence of those connections and the fact of their dependence on the resources habitually supplied by the delinquent are entirely demonstrable. Bentham's consistent demand is that the decisions of public officials should not only be evidence-based, but that they should be seen so to be. Where there is a rule, there is to be a rationale.

In *Rationale of Reward*, Bentham intimates that fathers do possess sufficient knowledge of the dispositions and sensibilities of their children to enable them to distribute pains and pleasures in minute

[89] Bentham, *IPML* (*CW*), p. 71.
[90] Bentham, *IPML* (*CW*), p. 70.
[91] See Bentham, *IPML* (*CW*), pp. 69–71, and see also *Rationale of Punishment*, pp. 411–13 (Bowring, vol. 1, pp. 516–17).

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proportions,[92] while elsewhere he again notes that the combination of knowledge and power in domestic arrangements puts the holders in a position to fine-tune the receipt or privation of pleasures particularly valued by those whose behaviour is to be influenced, on the basis of intimate knowledge not available to the legislator or the judge: 'There is no pleasure which a parent or teacher cannot employ as a reward, by permitting its enjoyment, or convert into a source of punishment, by restricting its use.'[93]

Physical reductivism

There is some evidence that early in his career Bentham was drawn to a second strategy for simplifying the calculation of pleasures and pains. Whilst he had clearly rejected it by the time of the composition of *IPML*, he continued for the rest of his career to exploit its appeal. Bentham repeatedly appeals to his audience to engage in a moment's introspection in order to confirm both the reality and the simplicity of pleasure and pain. My introspection confirms this unhesitatingly with regard to pleasures and pains of the sense: I know what it is to stub my toe, and I can tell you when it happens roughly how intense the feeling is. The doctor asks the patient, 'Does it hurt when I press here?' and the patient is able to answer not only regarding the existence or otherwise of pain, but, in broad terms at least, regarding its intensity.

It certainly seems to be the case that the early Bentham recognized that morality would be significantly less challenging to the extent that pleasures could be related back to the unquestionably real entities of physical pleasure and physical pain, and went out of his way to root something as allegedly removed from those entities as the practice of virtue, in the expectation that the practice will lead to physical pleasure, or exemption from physical pain. Bentham does seem keen to foreground the viscerality of pleasures and pains, on the basis that the instruments of such sensations all seem exchangeable for money, and money values are 'commodiously measurable'. If all pleasures could be reduced to the physical, then all would be well, since the sources of all purely physical pleasures were marketable commodities, while the degree of intensity could safely be left to revealed preference. In an early manuscript, Bentham discusses the motives involved in fulfilling one's duty by abstaining from vicious pleasures. A man refrains from indulging in such pleasures because of the sanctions that

[92] Bentham, *Rationale of Reward*, p. 82 (Bowring, vol. 2, p. 216). See also 'Outline of a Work Entitled Pauper Management Improved', in *Writings on the Poor Laws: II*, ed. M. Quinn (Oxford, 2010 (*CW*)), p. 547n., where Bentham praises 'the domestic tribunal' as approaching more nearly to perfect justice than any other.

[93] Bentham, *Rationale of Punishment*, p. 151 (Bowring, vol. 1, p. 436). See also J. H. Burns, 'Nature and Natural Authority in Bentham', *Utilitas* 5 (1993), pp. 209–20.

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he apprehends will follow such a breach of duty: I do my moral duty to avoid the physical pains resulting from the imposition of sanctions, religious, political or moral. If it is the religious sanction which does the job,

> it is from the apprehension of some pain to be inflicted on him by the Deity that he abstains: which pain is either a pain of the body, or some pain which he could have no idea of if he had not had it from his body. For it is from the body that men learn what pain is.[94]

In a fragment in criticism of Maupertuis, which appears to be another version of the same discussion, Bentham traces the operation of the moral sanction, in depriving me of the esteem of my fellows, and thereby issuing in the reduction of the benefits, the physical benefits, I can expect from them. If the withdrawal of esteem did not issue in physical pains, or loss of physical pleasures, the moral sanction would have no effect: 'Esteem is good, is a cause of pleasure, nobody can doubt of it. It is a means of procuring sometimes physical pleasures directly, at other times riches and power which procure them.'[95]

In *IPML*, the effort to reduce all pleasures to the physical or bodily is conspicuously absent. Here, the pleasures derived from the esteem of my fellows, that is the pleasures of a good name, consist in the current satisfaction I derive from my belief that I am of good standing among the members of my community, and can thus expect to benefit from 'their spontaneous and gratuitous services'.[96] The pleasures involved in the consumption of these services remain undefined and open-ended. Engelmann is surely correct in asserting that Bentham recognized the slippage, but was content to allow his readers to assume the intuitive viscerality of pleasure and pain, and thereby elide significant difficulties in the use of the concepts.[97] The problem is that moral reasoning asks more complex questions than 'What pains or pleasures of the sense am I feeling here and now?'

In the first place, the utility calculation requires information not merely about immediate sense experience, but about the operation

[94] UC lxx. 14.

[95] UC xcvi. 131 (in Baumgardt, *Bentham and the Ethics of Today*, p. 570). It should be noted, however, that Bentham's target in this discussion was Maupertuis's assertion that the only pleasures worth pursuing were the purely mental ones deriving from the pursuit of truth and virtue, so that the reduction of the apparently mental pleasure of doing one's duty to the physical pleasures liable to flow from the good will of others serves instrumentally to undermine that assertion, rather than constituting a basic premise of Bentham's own argument. See Guidi, 'Jeremy Bentham's Quantitative Analysis of Happiness', pp. 75–83.

[96] Bentham, *IPML* (*CW*), p. 44.

[97] See S. Engelmann, *Imagining Interest in Political Thought: Origins of Economic Rationality* (Durham and London, 2003), pp. 48–76.

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of mental faculties (memory, imagination, association), and about the possession of fictitious, socially mediated psychic entities such as attitudes (benevolence and malevolence) and beliefs (expectation, piety). What distinguishes complex perceptions from simple ones is that the former can be analysed into various manifestations of the latter. Complex interesting perceptions are resolvable into a plurality of simple pleasures, a plurality of simple pains, or a combination of simple pleasure(s) in association with simple pain(s).

> What determines a lot of pleasure, for example, to be regarded as one complex pleasure, rather than as divers simple ones, is the nature of the exciting cause. Whatever pleasures are excited all at once by the action of the same cause, are apt to be looked upon as constituting all together but one pleasure.[98]

If Bentham had made the same comment about the influence of causation with reference to simple pleasures and pains, it would have accorded very well with the catalogue he actually produces. In almost all the simple pleasures and pains, the abstract nouns which, in combination with either 'pleasures of' or 'pains of' constitute their name, are, in part at least, the instrument, the exciting cause, of those pleasures or pains. This seems straightforwardly true in relation to the pleasures of wealth, skill, amity, good name, power, and relief, and likewise with the pains of privation, awkwardness, enmity and ill-name.[99] The remaining simple pleasures and pains, the eight corresponding pairs of pleasures and pains (of sense, memory, imagination, association, benevolence, malevolence, expectation and piety) fit less easily into this pattern. In these cases, the agent's possession of particular senses, faculties, affective attitudes or beliefs is a necessary but not a sufficient condition for the occurrence of these sensations.[100]

[98] Bentham, *IPML* (*CW*), p. 42.

[99] Thus the pleasures of wealth are the effects of, or are caused by, the possession or the acquisition of wealth. The pleasures of skill are the effects of, or are caused by, the exercise of skill, and so on.

[100] For instance, the pleasures and pains of the senses are the effects of the senses, are caused by the senses, only in so far as an agent's loss of a sense denies him the sensations for which it is the conduit: a blind person experiences neither pleasures nor pains of sight. However, the possession of the sense does not determine the agreeableness or otherwise of the sensations it relays: the sensations it relays can be either pleasant or painful, according to circumstances exterior to it. Exactly the same is true of the mental faculties of memory and imagination. The amnesiac derives neither pleasure nor pain from non-existent memory, while its recovery is likely to subject him to both pleasures and pains of recollection. The pleasures and pains of association also depend on the existence of the human mental capacity to make connections between disparate objects, to notice patterns and make analogy. When that capacity exists, it can deliver pleasures or pains, depending on the agreeableness or otherwise of the images brought to mind.

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In relation to the pleasures and pains of benevolence and malevolence, the necessary condition for the experience of sensation is the possession of an affective attitude towards the sensations experienced by other sentient beings. Given the possession by an observer of such an attitude, the efficient cause of the sensations, that is the knowledge that pain or pleasure is felt by another sentient being, will produce a similar or an opposite sensation in the observer. In the absence of good or ill-will on the part of the observer, no such vicarious sensations could arise. In relation to the pleasures and pains of expectation and piety, the necessary condition for the experience of the sensation is not a sense, or a faculty, or an affective attitude, but a current belief about future contingencies. Expectation is the conviction or belief that a future event will come to pass.[101] I experience no current pathematic sensations in contemplating an object or event which I do not believe will have an effect on my future experience of such sensations. I do experience current pathematic sensations concerning an object or event which I do believe will have an effect on my future experience of such sensations. That which I do not believe I will one day have, I will never miss. The pleasures and pains of expectation provide a link between the difficulties imposed by the need to assess the likely attitudes of others, and the additional difficulties imposed by the fact that the pleasures and pains which are the subject of the utility calculation are all predictions of future contingencies, entities which will become real, if ever, only in time to come.

The pains and pleasures of piety relate instead to my current belief about my standing in the eyes of a Supreme Being. In this case, the number of beliefs in play increases to two. In the first place, I experience no pleasures or pains of piety unless I believe in the existence of a Supreme Being who intends to provide me with pleasures or pains according to my behaviour. If I do hold that belief, I derive current pleasures/pains of expectation/apprehension from my current belief about the quality of my performance to date. I derive current pleasure/pain from the belief that God is pleased/displeased with me, because I anticipate a flow of future pleasures/pains from Her in the way of reward/ punishment.

The socially mediated nature of the vast majority of Bentham's simple pleasures and pains emerges very clearly when we ask how

[101] Although Bentham distinguishes the pains of expectation or apprehension from all other pains, which are current sensations or 'pains of sufferance', this seems to be a confusion on his part. It is true that the pains of apprehension are derived from my anticipation of future pains, but an apprehension is a current belief, and the corresponding current pain I derive from my anticipation that I will be unable to satisfy a critic of this article is a pain of sufferance.

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many of them depend upon the agent's beliefs about the affective attitudes of other sentient beings. At a conservative estimate, the pleasures and pains of amity, good name and piety depend absolutely on my belief about the degree to which others love me or hate me. In addition, the pleasure of power depends on my belief that I can modify the behaviour of others in accordance with my will.[102] The extent to which Bentham's enumeration contains pains and pleasures which depend crucially not only upon expectations of future contingencies, but on the agent's beliefs about the affective attitudes of others gives the lie to the reductionist critique which views his treatment as a monstrous simplification of complex psychological processes. The discussion in the next section will follow Bentham's own analysis of the complications which muddy the waters of the process of the calculation of utilities.

IV. OBJECTIVITY AND SUBJECTIVITY

For Bentham the superiority of utilitarianism over other moral principles consists in the reliance of its conclusions on matter of fact, that is on the real entities constituted by the sensations of pleasure and pain.

> Now this matter of fact is no other than this: viz. the state of sensations upon the commission of an act of the persons within the circle of its influence: viz. of sensations, partly present, partly future in certainty, partly future in contingency, æstimated all together at their present value.[103]

Rules require reasons, while 'a maxim to be intelligible must openly refer to, and to be just must be founded on, or at least justifiable by, a balance of utilities, or in other words by a comparison of happiness and unhappiness'.[104] Without reference to such a balance of pleasures and pains, morality and law are both indefensible and incomprehensible. When established on the basis of sensation, however, morality 'is as strictly and properly a science founded upon experiment, as any branch of Natural Philosophy'. Having made the claim, Bentham immediately qualifies it by the concession that

> in Natural Philosophy the phænomena on which the maxims are founded, and in the enumeration of which under a general aspect they consist, are at any time submitted to the inspection of the enquirers, and of those at any number at once, at the pleasure, and as it were by the creation of the professor.[105]

[102] On Bentham's account, their affective attitude is only relevant if one of the sanctions at my disposal is withdrawal of affection. The absence of any pains of powerlessness is, as Engelmann notes, striking (*Imagining Interest in Political Thought*, p. 170n.).
[103] UC lxx. 22.
[104] UC lxx. 22.
[105] UC lxx. 22–3.

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The same cannot be said of morality. The conclusions of any science are only as valid as the data, or with Bentham the facts, from which they are derived. Does moral reasoning permit certainty? '[T]he answer is plain, the same that those facts are in each case susceptible of, and none other.'[106]

What, then, are the caveats to be entered concerning the facts adduced in moral reasoning as opposed to reasoning about the physical world? While pleasure and pain are real entities, real sensations, and 'sensation is the highest evidence',[107] there are a series of pitfalls in the effort to calculate the sensations at stake in moral or legal reasoning. The first difficulty, which Bentham emphasizes in his writings on logic, concerns the difference between simple introspection in pursuit of an answer to the question 'What do I feel?', and the formation of hypotheses providing an explanation for the presence of particular sensations. If you ask yourself how you're feeling now, there is a chance approaching to certainty that you will be able to produce an accurate answer. 'In respect of the actual state of my sensations, meaning the sensations themselves, I am scarcely liable to be deceived or in error.'[108] However, as soon as you attempt to do more than attest to the existence of a sensation, as soon as, for instance, you aspire to adduce its causes, you engage in a process of hypothetical reasoning – 'I'm bored, because I'm reading an incredibly boring paper' – and the probability of error increases, because causation is not demonstrable by simple introspection. Bentham's point here, made with positively Humean scepticism, is that since the attribution of causation is always hypothetical, it remains open to falsification. Natural philosophy advances by the falsification of hypotheses, and the consequent requirement to develop a new hypothesis which accords with the new data. In relation to the physical world, the inferential search for causes benefits from the ability to manipulate that world; the scientist can hold all circumstances constant except the single allegedly causative influence which is the focus of his inquiry:

> In those cases in which the several influencing circumstances are all of them subject not only to the observation but at the disposal of human agency, any such miscalculations and errors as from time to time happen to be made, may, when perceived, from time to time be corrected.[109]

[106] UC lxx 23.
[107] UC lxx. 23.
[108] 'Universal Grammar', UC cii. 460 (Bowring, vol. 8, p. 330).
[109] 'Of Ontology', UC cii. 69 (in *De l'ontologie et autres textes sur les fictions*, ed. J.-P. Clero, C. Laval and P. Schofield (Paris, 1997), p. 144 (Bowring, vol. 8, pp. 193–211, at 209).

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As a child I quickly form the hypothesis that the painful sensation I am experiencing results from my experiment with sticking my hand into the fire. If I experiment further, this particular hypothesis will remain unfalsified, but I would be well advised to remember that as soon as 'I undertake to pronounce an opinion relative to the cause of any of those sensations, from that moment I am liable to fail.'[110]

If I need to beware of the provisional nature of the inferences I draw from the data provided by my own sensations, the caveat applies much more strongly to the inferences I draw from what I assume to be the sensations of others: 'Speaking of the state of my own body am I thus much exposed to error? much more am I in speaking of the state of any other.'[111] This brings the moralist face to face with his second difficulty, which is that in moral reasoning the relevant sensations which require to be taken into account are not discoverable by straightforward introspection on the part of the reasoner, for the simple reason that they are not *his* sensations, but those of other people:

> But *this sensation is not of him who announces the proposition concerning it, it is not of the Professor, nor can it be (but by accident) of the audience; it is in them no more than a presumption of what would be the sensations, in a case which is not present, of other men*, formed upon recollection, observation and analogy – recollection of one's own sensations upon past occasions – observation of the conduct of others – analogy according to which our conduct or discourse is presumed to originate from like sensation as those which give birth to the same conduct in ourselves.[112]

Since all legal and moral reasoning beyond the purely self-regarding, that is the exclusively prudential, concerns precisely the sensations of others, to which I have no introspective access, it behoves me to display caution in the attribution of sensations to others. Since 'the elements of the calculation, being in so large a proportion of the psychical class – such as intentions, affections and motives – are in a proportional degree situated out of the reach of direct observation',[113] my caution requires further enhancement: attributing intentions to others involves adducing causes for their actions, and is thus fraught with possibilities for error.

Here enters a third difficulty, which is that the problem is exacerbated by the recognition that in any project of rule-making, the sensations in question do not simply exist outside the direct introspective experience of the rule-maker, but do not exist at all: 'this sensation is not of him who announces the proposition concerning it, . . . it is in them no

[110] 'Universal Grammar' UC cii. 460 (Bowring, vol. 8, p. 330).
[111] 'Universal Grammar' UC cii. 460 (Bowring, vol. 8, p. 330).
[112] UC lxx. 23 (emphasis added).
[113] 'Of Ontology', UC cii. 71 (in *De l'ontologie*, p. 146 (Bowring, vol. 8, p. 210)).

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more than a presumption of what would be the sensations, in a case which is not present, of other men'. In devising rules, in coming to moral decisions, human beings operate not in the indicative but in the conditional and subjunctive moods. Rule-making is a forward-looking activity: the pains and pleasures which form the basis of calculation are putative, constituted by the rule-maker's prediction of the consequences of the rule for potential, that is as yet unrealized, sensations.

Indeed, all conscious decisions share this prospective characteristic. As Engelmann points out, the efficacy of sanctions in modifying behaviour depends absolutely on the use of conditional reasoning, on our ability to predict future pleasant or unpleasant sensations consequent upon an action: 'if I do x, then y will follow'.[114] Thus the pains and pleasures which form the basis of my calculation about whether to get out of bed in the morning may include real entities, that is actual sensations present to me as I ponder the decision: 'I'm a bit tired.' However, a moment's reflection identifies the probable implications of staying in bed for the future sensations of pain and pleasure likely to be experienced by myself and others, which sensations do not yet exist, and are not present to me, but are, in Engelmann's words, 'expectations – mental projections of the future',[115] and thus literally figments of my imagination. 'I'm due to give a seminar this morning. If I fail to arrive, I assume (being typically human in overestimating my own importance) that a majority of my audience will be disappointed (and thus pained), but not as disappointed (and thus pained) as my boss, who will feel obliged to step in at short notice and give the seminar. Unlike most of my auditors, he has it in his power to inflict significant pains on me if I forfeit his goodwill. Perhaps I'd best get up.'

The decision-maker in morals or law is thus faced with profound difficulties in calculating the potential pleasures and pains of his law or his decision. On what does he base his predictions of pains and pleasures?

> upon recollection, observation and analogy – recollection of one's own sensations upon past occasions – observation of the conduct of others – analogy according to which our conduct or discourse is presumed to originate from like sensations as those which give birth to the same conduct in ourselves.[116]

To aid him in his efforts, then, he has first the totality of his lived experience, as mediated by the faculty of memory; second, the observed behaviour of others, as mediated either by his memory of conduct which

[114] Engelmann, *Imagining Interest in Political Thought*, p. 70.
[115] Engelmann, *Imagining Interest in Political Thought*, p. 54.
[116] UC lxx. 23.

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he has witnessed directly, or by the second-hand accounts of others; and third, the pattern-matching, or similarity-detecting capacity of analogy, based, as related by Hartley and Locke, on the association of ideas, which directs his attention to the relevant elements of historical, that is past, experience.

For Engelmann, Bentham self-consciously trades on the visceral physicality of the reductive pleasures and pains of eating, drinking or being relieved of intensive labour, in order to deceive the reader into believing that much more complex assemblages of expectations may be treated in the same manner.[117] Bentham certainly wants to retain the appeal of a system which offers simplicity and determinacy, but the truth is that he is quite aware of the complexity of the sensations whose value is to be calculated. Bentham does stress the foundation of his theory in the 'presence' and 'viscerality' of pain and pleasure, without highlighting the degree to which the pains and pleasures which bear the weight in human decision-making are not only quite 'unvisceral' products of the imagination, but are conspicuous by their 'absence', in the sense that they are not yet actualized sensations. However, the connection between predicted outcomes, between the alternative pictures of futurity which actually count, and real, present, visceral sensations is closer than Engelmann allows. Not only, if I do my calculations correctly, will the pleasures and pains consequent upon my decision become, in consequence of that decision, actually experienced sensations, that is real entities, but my prediction of the consequences of actions for experienced sensations is entirely derived from past experience, direct or indirect, of sensations which have been entirely present either to me or to other observers.

Engelmann is acute in highlighting both the constructivist nature of Bentham's theory, and the importance of discourse within it. Any assessment of the sensations liable to be felt by others in consequence of an action tells a story about potential sensations, about entities which are asserted to be likely to be brought into existence by that action. The problem with most moral discourse for Bentham is that no such story, no such sensations, no potentially real entities, feature at all. In any community, the nature of human decision-making is informed by the three elements which Bentham identifies: recollection, observation and analogy. In any individual exercise in decision-making social norms, unavoidably absorbed through the process of individual development in a particular social milieu, enforced by the moral or popular sanction, and reinforced by repeated deployment in decision-making, direct the decision-maker's attention to approved and disapproved sources

[117] See Engelmann, *Imagining Interest in Political Thought*, pp. 53–62.

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of pleasure, to real and imaginary sources of pain. Bentham asks rhetorically whether men are wont to lose sight of well-being as the end of action, and responds: 'Oh, yes, with the exception of the inventive few – who are few indeed – every man'.[118] He continues:

> The end – yes – of the end he is not altogether unregardful: but as to *means*, the *means* which he sees pursued by others – by all those from whose discourse and practice his notions on the subject have been derived – these are the means which from first to last he has been in the habit of regarding not only as conducive to the end, but if not the only ones that are so in any degree, at any rate those which are so in a higher degree than any others which the nature of the case admitts of.

Bentham's human agents are on the one hand empiricists, experiencing sensations, developing hypotheses of cause and effect, and modifying them once falsified. Yet, on the other, they do all the work of interpreting the world with the tools made available to them by their particular language, and by the habitual ways in which they put that language together, in a constructivist arena where dominant discourses assert the salience of some connections, and the non-existence or irrelevance of others. Evidence of Bentham's recognition of our unreflective reliance on inherited valuations is widespread. To mention a single example, most of the work in the customary condemnation of lending money at high rates of interest was done simply by the attachment of the pejorative label 'usury' to the activity:

> Usury is a bad thing, and as such ought to be prevented: usurers are a bad sort of men, a very bad sort of men, and as such ought to be punished and suppressed. These are among the string of propositions which every man finds handed down to him from his progenitors: which most men are disposed to accede to without examination, and indeed not unnaturally nor even unreasonably disposed, for it is impossible the bulk of mankind should find leisure, had they the ability, to examine into the grounds of an hundredth part of the rules and maxims which they find themselves obliged to act upon.[119]

Some mistakes in moral language, and thereby in moral reasoning, are to be expected, given the difficulties Bentham enumerates. However, ethics has one further disadvantage as against natural philosophy, which is that in this field fundamental and conflicting interests are at stake: 'in the making of the calculation, the judgment is in a peculiar degree liable to be disturbed and led astray by the several sources of illusion: – by original intellectual weakness – by sinister interest – by interest-begotten prejudice – by adoptive prejudice'.[120] The

[118] 'Logic', UC ci. 390 (Bowring, vol. 8, pp. 213–93, at 277).

[119] *Defence of Usury; shewing the Impolicy of the Present Legal Restraints on the Terms of Pecuniary Bargains* (London, 1787), p. 7 (Bowring, vol. 3, pp. 1–27, at 3).

[120] 'Of Ontology', UC cii. 71 (in *De l'ontologie*, p. 146 (Bowring vol. 8, p. 210)).

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Benthamic demand for justification, for reasons, began as a campaign to replace the dominant moral discourse, an incoherent amalgam of the principle of caprice (which advances no rationale, and abjures any appeal to the understanding, relying instead on a bare statement of will) and that of asceticism (which a moment's reflection exposes as positively anti-rational and insane), with a better one, better by being explicitly based on the examination of entities whose reality is at least potential. But in exposing the way in which dominant discourses channel the course of our intellectual construction of our world, and in the realization of the role of sinister interest in that process, the demand is capable of being interpreted, as it is to some extent by Engelmann, and more radically by Ben Dor,[121] as a plea for the continual re-examination of the reality and robustness of all the causal connections which have become second nature to us, a plea for competing discourses to be heard and evaluated on the basis of the adequacy or otherwise of their predictions about the probable consequences of competing actions.

Whatever the pitfalls of the effort to adduce causes, and to predict and calculate the present value of 'sensations, partly present, partly future in certainty, partly future in contingency', Bentham is convinced that there is no alternative to it, while the available tool-kit, consisting of recollection, observation and analogy, is all we have:

> It is true, again, that this recollection of experience, this observation, and this analogy are the very grounds (and the only ones we have) of conduct which are universally received as sufficient for the most as well as the least important concerns of common life.[122]

Nevertheless, it must be remembered that when we undertake the process of making the calculation of future sensations, we are all too likely to get it wrong:

> These observations of experience may be erroneous, [they] may be incomplete, though just: the analogy binding together the experiences and observations, according to which the sensations of others are presumed to be what we remember our own to have been in cases similar, though true as to the kind of those sensations, may be erroneous as to their degree.[123]

First then, we rely on our own memories and on second-hand data, both of which may be inaccurate. Second, we are prone to leave out of the account either pains or pleasures, or people liable to experience them, without which our calculation is incomplete. Third, we become confused in making analogies and attributing causes, so that we take account

[121] O. Ben Dor, *Constitutional Limits and the Public Sphere: A Critical Study of Bentham's Constitutionalism* (Oxford, 2000).
[122] UC lxx. 23.
[123] UC lxx. 23.

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of 'uninfluencing *circumstances* and even *obstacles* . . . in the character of principally or even exclusively operating causes'.[124] Fourth, we get our analogy right in selecting similar cases, but we err in estimating 'degree', that is, we assess intensity incorrectly.

Bentham thinks the second error, the sin of omission in the failure to take account of all the relevant pains and pleasures and all the relevant persons liable to experience them, is all too common. Remember the dimension of extent: when Bentham discusses the consequences of a mischievous act in *IPML*, he includes the secondary mischiefs of danger and alarm. I read of a rise in knife crime in London, and I suffer a modest pain of alarm at the thought that I might become a victim. Since some 7 million people live in London, the total pain of alarm arising from the offence is enormous. By leaving it out of the account I guarantee that my calculation is erroneous. Similarly, it is the impact of extent which renders example the most important end of punishment, 'in proportion as the *number* of persons under temptation to offend is to *one*'.[125]

The third category of error in calculation is also widespread, and arises in part from the inability of language to offer meaning without employing a raft of fictitious entities, which are all too easily infected with irrelevant ideas which prejudice good calculation. A good example is 'motive', a fictitious psychological entity comprehensible only through its dependence on the pleasures or pains expected from an action. Since no pleasure of itself is evil, and no pain good, no motive can be of itself evil or good. Once more, the role of discourse, of the terms in which debate is undertaken, which influences the will indirectly through the medium of the understanding, becomes apparent: 'To speak of motives, as of anything else, one must call them by their names. But the misfortune is, that it is rare to meet with a motive of which the name expresses that and nothing more.'[126] Instead, in common usage motives come pre-equipped with approbation (benevolence, piety, honour) or censure (greed, avarice, vengeance), which at the very least confuses, and may indeed subvert altogether, the single relevant process of the calculation of the probable consequences of action. Thus we expect good motives to have good consequences, and therefore we don't look for bad ones. We think revenge (or antipathy) a worse motive than greed (or desire for wealth), and might plausibly expect the mischiefs arising out an act of vengeance to be worse than those arising out of a similar act of greed. But the desire for money is universal, and anyone who has

[124] Bentham, 'Of Ontology', UC cii. 71 (in *De l'ontologie*, p. 146 (Bowring, vol. 8, p. 209)).
[125] Bentham, *IPML* (*CW*), p. 159n.
[126] Bentham, *IPML* (*CW*), p. 101. See also 'Universal Grammar', UC cii. 466–7 (Bowring, vol. 8, p. 331).

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money is a potential victim, which means that the mischiefs arising from a robbery will be widespread; whereas the desire for vengeance is far from universal, and the potential victims are limited to those who have offered to the offender 'a *provocation*, equally irritating with that which gave occasion to his crime'.[127]

The final source of error arises directly from the inaccessibility of the dimension of intensity. We might remember and observe accurately, we might include every relevant potential sensation, and be spot on with our choice of analogy, and yet our ascription of intensity to those sensations 'may be erroneous as to their degree'. This difficulty would persist even if moral discourse were to be cleansed of misleading fictions, and no matter how perfect became our recollection, the observations we rely on, or our ability to select our analogies accurately.

In view of all these difficulties, it is not surprising that for all Bentham's emphasis on quantification in *IPML*, fine-tuned calculations do not appear there. In discussing the desirable property of commensurability between punishments, Bentham is quite explicit: 'Punishments of different kinds are in few instances uniformly commensurable.'[128] Only where, given positive numbers, one quantity is definitionally larger than another, as in 'x + y is greater than x' or 'x + ¼x is greater than x', does he demonstrate his method in action.[129] When Bentham speaks of competing quantities of pleasure and pain in discussion of rules or policies, he is almost always tentative, hesitant, and unwilling to attach figures to his estimates.[130] As he himself advised in his writings on Logic:

> From these speculative observations, practical inferences of no small importance might be deduced. 1. Avoid dogmaticalness. 2. Still more avoid intolerance. In both cases never cease to bear in mind how slippery and hollow the ground on which your opinion, and consequently the utmost value of any expression which you can give to it, rests.[131]

And yet, for all the caveats and qualifications, the crucial point for Bentham remains that other moral theories do not even begin to make the attempt:

[127] Bentham, 'Table of the Springs of Action', p. 107. See also *IPML* (*CW*), p. 155.
[128] Bentham, *IPML* (*CW*), p. 177.
[129] See also Bentham, *Rationale of Punishment*, p. 102 (Bowring, vol. 1, p. 421), where Bentham notes that in principle, the more intense a punishment, the shorter need be its duration in order to produce a given quantity of pain.
[130] See, for instance, Bentham, *Rationale of Punishment*, pp. 174–6 (Bowring vol. 1, pp. 443–4) where Bentham questions the legitimacy of the afflictive capital punishment inflicted on West Indian slaves.
[131] Bentham, 'Universal Grammar', UC cii. 460 (Bowring, vol. 8, p. 330n.).

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All this it may be said is but guess-work. Difficult it is to make these calculations: nor is there any certainty in them when made. Is it so? indeed it cannot be denied: but this may be boldly affirmed, that bad as the chance may be which this method gives us of judging right, no other method is there that affords so good an one: and that any other mode of judging is right or wrong in proportion as it approaches to or deviates from this. . . . Suppose any mode of forming a judgment different from this, and the chance which that shall be liable to of deviating from expediency will be all the chance which this is liable to, superadded to the chance which results from the deviation.[132]

Having thus worked his way through many of the objections to consequentialist analysis of which he has often been regarded as completely oblivious, Bentham insists that, despite its shortcomings, such reasoning constitutes the only defensible method in moral and legal reasoning.

How might Bentham respond to the charge that his insistence on widespread publicity, and his consistent demand both for the coupling of rule with rationale, and for the widest possible public scrutiny of rules and their rationales, simply serves to shine a revealing light on the seductive but ultimately false promises of utilitarian reasoning, and in particular on its ultimately vainglorious vaunting of its, to say the least, vastly exaggerated capacity to deliver determinacy and correctness in morals? It is likely that he would simply repeat, as he did late in his career, and for the widest possible public scrutiny and assessment, the rationale of utilitarianism, that is the basis on which utilitarian reasoning is conducted, and argue that the conditions of human existence do indeed render calculation an inexact and imperfect tool, whose sole claim to preference is its superiority 'over every other form of argumentation, in which every idea is afloat, no degree of precision being ever attained, because none is ever so much as aimed at'.[133]

CONCLUDING REMARKS

Bentham believed that the principle of utility replaced the issuing of mere sounds with the exchange of sense. Reasoning about human welfare, prudential, moral or legal, required an anchor in the real, objective entities of human feelings. Once the effects of a policy on the distribution of pains and pleasures amongst those affected became the criterion of evaluation, those pains and pleasures could be compared quantitatively, and the policy offering the greatest net balance of pleasure over pain identified and adopted. If the effects of policies were to be compared in quantitative terms, a common

[132] Bentham, 'Preparatory Principles Inserenda' (UC lxix. 69) (emphasis added).
[133] Bentham, 'Codification Proposal', p. 255.

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metric had to be found. Initially, Bentham thought that money could provide such a metric between pleasures and pains which were all expressible, at least indirectly, in money terms. On more than one occasion, however, Bentham noted that certain pleasures and pains were in fact unquantifiable in money terms. Whilst Bentham remained committed to the position that, at least in relation to cases in which the relevant pleasures and pains could be inferred from money values, the elusive goal of quantitative determinacy could be achievable, he does seem to have recognized that significant aspects of human experience, that is the subjective experience of idiosyncratic human individuals, were not quantifiable, because the pleasures and pains involved in that subjective experience, especially the pains and pleasures arising from attitudes of sympathy or antipathy, from love and hate, had no common metric. In this sense, the image of straightforward calculations of homogeneous pleasures and pains does turn out to be completely misleading.

However, the imperfections of the process of calculating pleasures and pains do not turn Bentham into Hume: the recognition of serious pitfalls and obstacles is not equivalent to abandoning the enterprise. We should indeed be wary about the accuracy of our calculations, but recognition of the imperfections of human reasoning is not equivalent to abjuring the prospective application of utilitarian reasoning to moral and political problems, to the end of rearing 'the fabric of felicity by the hand of reason and law',[134] in favour of a retrospective, historical reasoning which, at best, can explain how we arrived at our present set of rules and assumptions. Nor does the impossibility of exact quantification fatally undermine Bentham's claim that the principle of utility represents an advance over that of sympathy and antipathy: broad judgements are sometimes fine-tuned enough to determine practical policy, and even where they are not, argument can still benefit from focusing on the alleged benefits or burdens of policies to individuals. Moral and political decisions reached by the calculation of consequences in terms of potential pleasures and pains, not all of which can be measured by the same metric, will indeed be messier and less definitive than modern cost–benefit analysis and the law and economics movement assume; yet if human beings are to engage in discussion about morals or politics, this is the best they can do.

It would be disingenuous not to recognize that this article raises more questions than it answers. In particular, one fascinating and crucial question concerns the role and status of those other famous proxies for the principle of utility, the subordinate ends of legislation. It is

[134] Bentham, *IPML* (*CW*), p. 11.

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certainly plausible that these ends were intended, at least in part, to obviate the necessity for the legislator to engage in the calculation of particular individual utilities.[135] One area in which Bentham employed the subordinate ends of legislation as a guide to the legislator was political economy, and the process of editing Bentham's writings in this field has shed some further light on the tensions inherent in his approach to the calculation of utilities. That, however, is a subject for a different article.[136]

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[135] For interpretations of Bentham's project which adopt elements of such an approach see P. J. Kelly, *Utilitarianism and Distributive Justice: Jeremy Bentham and the Civil Law* (Oxford, 1993); F. Rosen, *Jeremy Bentham and Representative Democracy: A Study of the Constitutional Code* (Oxford, 1983), pp. 200–20, and *Classical Utilitarianism from Hume to Mill* (Oxford, 2003), pp. 220–31; Postema, 'Interests Universal and Particular'.

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