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Accepted Version

Stack, D. (2020) The hostility of William Stanley Jevons towards John Stuart Mill: the fourth dimension. *History of Political Economy*, 52 (1). pp. 77-99. ISSN 1527-1919 doi: 10.1215/00182702-8009523 Available at <https://centaur.reading.ac.uk/79392/>

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To link to this article DOI: <http://dx.doi.org/10.1215/00182702-8009523>

Publisher: Duke University Press

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**The Hostility of William Stanley Jevons towards John Stuart Mill: The Fourth
Dimension**

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The hostility of William Stanley Jevons towards John Stuart Mill: the fourth dimension

Introduction

There was ‘nothing hasty or ill-considered’ in William Stanley Jevons’s determination to traduce the work and reputation of John Stuart Mill. Shortly before his untimely death in 1882, Jevons recalled that he had first made ‘acquaintance’ with Mill’s *Principles of Political Economy* (1848) as an undergraduate in 1857, ‘and from the time of first reading’ had ‘strongly dissented from some of his views.’ Jevons’s misgivings deepened when he was obliged to read Mill’s *System of Logic* (1843) for his MA in 1861 and, after five years teaching this text, between 1863 and 1868, his faith in Mill was so ‘thoroughly shaken’ (JA6/5/42, 4) that the then recently married Jevons sacrificed part of his 1868 holiday in the Isle of Man to draft three articles pointing out ‘some of the inconsistencies and contradictions’ in Mill’s *Logic*. These articles were then declined by an unidentified magazine editor, most probably on grounds of their intemperance (JA6/5/42, 4)). Jevons was more measured in the anti-Mill remarks which peppered his two major works – *Theory of Political Economy* (1871) and *Philosophy of Science* (1874) – but the success of these books, and Mill’s death in 1873, did little to assuage the animus. Between December 1877 and November 1879, Jevons published a series of four articles in the *Contemporary*

Review, under the running title of ‘John Stuart Mill’s Philosophy Tested’, with the averred intention of demonstrating the ‘disconnected and worthless character’ of Mill’s philosophy, exploding his ‘magazines’ and leaving him ‘hoist, like the engineer, with his own petard’ (Jevons, 1877b, 169). As comprehensive as these articles were, even this public defenestration did not satisfy Jevons. He continued to rail against Mill in private and began to draft a book in which, he declared with the portentous menace of a comic book villain, his ‘cool and settled purpose, as far as in me lies, to destroy the philosophical reputation of Mill’s writings’ (JA6/5/42, 3). Only Jevons’s death forestalled this ‘one more settling of the score’ becoming a further public assault.

All of this is well known. As R. D. Collison Black put it in 1960, ‘Jevons’s intense opposition to all that John Stuart Mill stood for in English political economy is so well known as to be a commonplace in the history of economic thought’ (214). As familiar as the problem is, however, historians have struggled to explain it convincingly. In particular, neither the state of contemporary economic theory nor the methodological differences between the two men seem *prima facie* sufficient to account for the depth and endurance of Jevons’s hostility. It is, after all, generally agreed, following Hutchison (1972), that the four central pillars of Mill’s economic theory – the wages fund, the labour theory of value, natural wages doctrine, and Malthusian constraints – had all collapsed suddenly in the years before Mill’s death and ought not to have formed any kind of incubus for Jevons. Moreover, Margaret Schabas (1990), Neil De Marchi (1972), and others have noted the common ground between Jevons and Mill, to the extent of finding it ‘somewhat puzzling’ that Mill did

not develop along the same lines as Jevons – given their shared interest in psychology, grounded in Benthamism (Sigot 2002), and study of differential calculus – to ‘arrive at or grasp,’ as Schabas put it, ‘the significance of the concept of diminishing marginal utility’. Schabas even regarded it as ‘at least plausible that, had Mill read Jevons with care, or read him at all,’ he ‘might have realized that the more abstract parts of economic theory could be analyzed mathematically’ (104). Leaving aside the curious chronology – Mill appears to be made culpable for not developing sufficiently to prevent Jevons from disagreeing with him – the general point is indisputable: in respect of economic theory alone, there were grounds for incipient agreement and the two men were far closer than Jevons’s truculence would suggest.

The mystery only deepens when one looks in any detail at what Jevons had to say about Mill’s political economy. Given the ferocity of Jevons’s judgment of Mill as ‘essentially illogical’, ‘sophistical and false’, and possessed of an intellect that was ‘wrecked’ (1877b, 169), it comes as something of a surprise to find him grudgingly respectful, both in public and in private, of Mill as a political economist. It is true that the preface of the first edition his *Theory of Political Economy* presents Mill as the embodiment of precisely that strand of economic analysis to which he wishes to object (Jevons, 1871, p.v), but the main body of the text contains very little direct criticism. In his unpublished papers Jevons is, if anything, even more forgiving, saying that Mill’s ‘errors are those of previous economists – the prevailing doctrines of the Ricardo school; some may be traced back to Adam Smith’ (JA6/6/14, 3). This was hardly complimentary - Mill, Jevons seemed to be saying, was unoriginal even in his mistakes - but the ‘Preface’ to the second edition of *The Coal Question* (1865) was

more fulsome, arguing that ‘no writer can approach the subject of Political Economy without falling into the deepest obligations to Mr. Mill, and it is as impossible as it is needless always to specify what we owe to a writer of such great eminence, and such wide-spread influence’ (Jevons, 1866, 19). Indeed, for Jevons the best of Mill’s many characters was that of economist, and he judged the *Principles* as the work for which Mill would be ‘most esteemed in the future’ (JA6/6/14, 3).

In his biographical memoir of Jevons, John Maynard Keynes offered one way out of this conundrum, suggesting that the most perspicacious explanation for Jevons pursuing his aversion to Mill ‘almost to the point of morbidity’ (Keynes 1978, 136) was psychological. Drawing upon his own enthusiasm for Freud and the testimony of his father, who had examined with Jevons, the urbane, insouciant Keynes diagnosed an excessive retentiveness in the character of the ‘over-insistent, even unbalanced’ Jevons (Winch 159). This psychological failing, Keynes argued, exhibited itself in Jevons’s habit of hoarding paper, fed through into his concern with the exhaustibility of Britain’s coal stocks, and led him to cling to old resentments long after any reasonable basis for them had expired. At the root of Jevons’s unresolved, irrational anger towards Mill, Keynes argued, was his failure to take the BA first prize as an undergraduate student in political economy at University College, London, where the syllabus was dominated by Mill’s writings. This wound was then constantly reopened by the act of repression entailed in Jevons having to spend twenty years teaching and examining a syllabi still dominated by Mill’s *Logic* and *Principles* ‘brought this jealousy against Mill to boiling point’ (Keynes 1978, 136).

Keynes was certainly on to something in stressing the need to delve deeper than the few personal interactions between Jevons and Mill to account for the strength of Jevons's feeling. After all, the two men had only one meeting, which was entirely cordial, and exchanged only a few brief, formal, but not unfriendly, letters (Schabas 1983; Mill CW, Vol. XXXII, letter 819a). Mill, moreover, spoke warmly in praise of Jevons's *The Coal Question* (CW, vol. XXVIII, 70-71) in Parliament and provided him with a reference in support of his successful candidature for election as Professor of Logic and Moral Philosophy and Cobden Professor of Political Economy at Owens College, Manchester in 1866 (Mill CW, Vol. XXXII, letter 940a). Any antagonism, in short, was one-sided, and deepened after Mill's funeral, a newspaper account of which Jevons kept in his private papers (JA6/5/97). In early 1874 he even visited Mill's grave in Avignon. Writing to his sister Lucy, Jevons described in driving out to the graveyard and then traipsing a hundred yards off road to find Mill's former home. There was, he told Lucy, 'nothing attractive' about either the house or its location in the 'least wholesome and interesting part of the country near Avignon.' His patience exhausted, the couple returned to their rooms in the *Hotel de l'Europe*. The same hotel, Jevons told Lucy, in which Mill's wife – the celebrated Harriet Taylor – had endured her final illness sixteen years earlier and from which Mill, he noted coldly, had 'carried away the furniture of the small room in which she died.' The gratuitous use of the adjective, which seemed to suggest it somehow unbecoming to have died in a room of modest dimensions, was followed by an unironical criticism of Mill's 'morbid attachment to the dead' (Black 1977). Jevons was not unique in visiting the grave, house, and the hotel, all of which had somehow made their way on to the essential itinerary of educated English men and women traveling in the South of

France. But most of those who preceded and succeeded him were admirers of Mill, and few others would have experienced *Schadenfreude* as their principal emotion while standing over Mill's grave.

In short, one does not need to share Keynes's Freudian foibles to concede that there was, as Donald Winch put it, a 'psychological dimension' (Winch 2009, 156) to Jevons's attitude towards Mill.¹ It was undeniably the case that 'some fluctuating mixture of envy, admiration, and resentment' was as much a feature of Jevons's animus to Mill, as divergent views on the role of mathematics in economic analysis. Neither, however, provides a full explanation, and Winch pointed to a third dimension: it is 'simply not possible', he argued, 'to understand Jevons's attitude to Mill without taking account of the role played by logic and scientific method in forming it' (151). This was consistent both with Jevons's own statements – which simultaneously singled out the *Logic* for opprobrium and dismissed Mill's scientific credentials – and the more recent revisionist work on Jevons's economics. In particular, as part of the more general movement in the history of economic thought away from Schumpeter's narrow disciplinary exegesis and towards a more contextual approach, Jevons's economics has been reinterpreted in relation to his *Principles of Science* (Mirowski 1989; Schabas 1990). Harro Maas (2005) and Michael White (1994a, 1994b), in particular, have demonstrated the centrality of science and scientific methodology to Jevons, and it is no longer possible to argue, as Schumpeter did, that Jevons's philosophy of science and his economics were 'quite divorced', or

¹ Although as with every foray into Freudianism, there is a danger of over interpretation, which only a proper sense of historical context can keep at bay. The fact, for example, that Jevons also married a woman whose maiden name was Harriet Taylor probably tells us no more than that Taylor is a common English surname, and Harriet a popular name for girls born in the nineteenth century.

that the ‘roots’ of his thought are untraceable (Schumpeter 1954, 826). This ‘scientific dimension’ brings with it a fuller understanding of the basis of Jevons’s economic animus to Mill. In particular it demonstrates, as we shall explore below, that it was Jevons’s psychophysiology, rather than simply his desire to mathematize economics per se, that set him on a collision course with Mill.

Our contention, however, is that even when taken together, these three features – economic doctrine, a ‘psychological dimension’, and questions of scientific method – are still insufficient to account for Jevons’s attitude towards Mill. There was, we argue, a fourth dimension: religion. Although discussed insufficiently in previous accounts, Winch indicates the need to pursue this, and this article takes up and extends his case that religion – and more especially the post-Darwinian apprehension of atheism – provided the crucial context in which Jevons’s animosity took root and burgeoned. In making this argument we are also making two broader interrelated claims about the study of nineteenth century economic thought more generally. First, we will argue that historians of economic thought need to consider the broadest possible context and bear in mind complex, crisscrossing patterns of intellectual allegiances that defy single contexts such as ‘science’ or simple binary divisions such as ‘science versus religion’. Second, we will argue that historians of the later nineteenth century economic thought need to show a similar sensitivity to the influence of religion as those studying the earlier nineteenth century. The relevance of religion to economics did not end abruptly with the publication of the *Origin of Species* in 1859, or even with Jevons’s *Theory of Political Economy* twelve years

later. To the contrary, the progress of the newer sciences heightened religious fears and provided the key context in which Jevons nurtured his hatred of Mill.

The Scientific Dimension

Following the work of White in particular the psychophysiological foundations of Jevons's neoclassical theory have been brought into the open. The importance of Jevons's debt to Richard Jennings, and the foundation of both in the psychophysiological theories of William Carpenter and Thomas Laycock (see Danziger 1982; Daston 1978; Jaycna 1981) is now well understood. Jennings's ambition to apply physiology and psychology to political economy, and make economic actions 'reflexes' analogous to gravitational force, incorporated within a framework of the "correlation of forces", resonated with Jevons's training in physics, and he followed the author of *Natural Elements of Political Economy* (1855) in seeing political economy as a 'science of human actions' founded on universal 'laws of nature'. Fundamentally, this meant that economic activities came to be conceived of as reflex actions (without any significant exercise of free will) and movements that originated in the spinal column constituted the 'natural laws' of political economy, which could be observed statistically by the method of averages. Jennings, in his own terms, was exchanging the 'terra incognita' of association psychology for the 'terra firma' of psychophysiology (Maas, 624). This methodology made political economy a physical science, which abandoned social definitions in favour of a purely atomistic approach (Jennings 1856) in which the isolated individual was placed prior to social relations, and man was rendered little more than a highly developed animal (Stark,

1943, 178, 44). The collapse of the distinction between mind and matter that followed once human actions were conceptualised as the product of man's neurophysiological constitution, that is, provided if not the roots then at least the soil in which Jevons's political economy grew.

One implication of this approach to Jevons is that it suggests that it was not mathematics per se, but psychology that formed the fundamental methodological divergence with Mill. This fits much better with Jevons's focus on the *Logic* and the detail of his arguments in the *Contemporary Review*, in which Jevons complained that the 'ruthless training' (1877b, 169) of James Mill had saddled his son with a 'false' (1878a, 275) philosophy, that was unscientific and rendered Mill unable to 'distinguish between fact and feeling, between sense and sentiment' (1879, 523). The elder Mill, of course, was the doyen and most uncompromising exponent of associationist psychology, the belief that the mind is formed causally by the impressions and experiences of one's environment. Although he drew heavily upon the eighteenth century traditions of the Scottish Enlightenment and the writings of David Hartley, the roots of Mill's associationist psychology lay in John Locke's seventeenth century attempts to combat the theological notion that humans possessed a fixed nature or innate ideas implanted by the Creator. The younger Mill's extraordinary education and upbringing was predicated on the principles of associationist psychology and these same principles formed an aspect of his intellectual inheritance that remained central to his thought right the way through to his later works, such as *The Subjection of Women* (1869). What made associationism so key to Mill. is that - in stark contrast to any theological assumption of human

immutability - it allowed for the infinite malleability of humankind and allowed, therefore, for the possibility of reform, progress, and human improvement.

For Jevons, associationist psychology led Mill into two interrelated errors. First was Mill's 'misapprehension of human nature': the common Enlightenment view that the mind was a *tabula rasa* and human character infinitely pliable. Jevons thought it ludicrous to regard humans 'like lumps of soft clay' – 'Granite rocks can be more easily moulded than the poor savages that hide among them' (1879, 536) – and mocked Mill: 'why not harness the lion and teach the sheep to drive away the wolf?' (1879, 537)² Whereas Jevons's psychophysiology entailed, of course, a physiological basis for economics, Mill had explicitly excluded physiology from the phenomena of the mind, arguing that the necessitarianism implied in physiological reductionism was neutralized once mental phenomena were considered to have an explanatory power of their own. Second, Mill subscribed to what Jevons regarded as the 'cardinal error' of associationist psychology, 'mental experiments' (1877b, 180).

Introspection, a long established tool, especially among the Scottish Enlightenment thinkers in whom James Mill had been schooled, was crucial to Mill's method. In Book VI of his *Logic*, in particular, he made use of introspection as a scientifically acceptable method of inquiry to separate political economy from history on one side and the natural sciences on the other. Jevons considered it quite extraordinary that Mill regarded '*mental experimentation*' as equivalent to physical experiments:

■ ² See also JA6/36/84, 'Hereditary Habits' and JA6/36/85, 'The Physical Basis of Life'.

What will our physicists say to a *strictly physical science*, which can be experimented on in the private laboratory of the philosopher's mind? What a convenient science! What a saving of expense in regard of apparatus, and materials, and specimens. (1877b, 178)

To Jevons, Mill's use of introspection was not only absurd, it formed a roadblock to the use of the ordinary tools and methods of the natural sciences within the moral domain (Maas, 23). There was, therefore, a *scientific* divergence between those economists who embraced the psychophysiology and those who rejected it, and the latter were identified with Mill. This had its clearest expression in Cairnes's 1857 dressing down of Jennings for 'extending economic inquiry beyond the limits which have hitherto been observed' (Cairnes 1857, 226), and explains Jevons's identification of Mill, in the introduction of his *Theory*, as the representative of the approach to economics he rejected. Jevons's ambition was to level down the categorical distinction between sciences of the mind and sciences of matter, and establish political economy as a strictly mechanical science, which used the ordinary methods of the physical sciences – mathematics, material experiments, and statistics – rather than introspection (Maas, 624).

A Darwinian dimension?

The most striking rhetorical flourish with which Jevons sought to discredit Mill's scientific credentials, however, did not relate directly to psychophysiology, but came when he described Mill as 'the last great philosophic writer conspicuous for his

ignorance of evolution' (1879, 535). This was a telling taunt directed at what even Mill's closest sympathizers recognised as a weak spot. Mill's stepdaughter Helen Taylor, for example, in her introduction to the posthumous *Three Essays on Religion* (1874) reassured Mill's readers that he 'would certainly have referred' to Darwin in the essays had they not been written prior to the publication of the *Origin* (CW, vol. X, 371). Nonetheless, we need to be wary of making any simplistic assumption that Jevons and Mill were divided by what is often referred to as the 'Darwinian revolution' – and not only because many historians of science are skeptical about the perspicacity of that term (e.g. Bowler, 1988).

Psychophysiology was not dependent upon, or congruent with, either evolution in general or Darwinism in particular. For one thing, psychophysiology in economics predated Darwinism, as the Cairnes/Jennings dispute, which occurred two years *before* the publication of the *Origin* shows; although Darwinism, of course, helped to reinforce the emphasis on the fixity of inherited traits and an analogy between animal and human behavior, which Jevons had already learned from Jennings. It also encouraged, as psychophysiology had, the growing tendency to use mathematics and statistics in economic argument.³ Darwin himself had little aptitude or enthusiasm for numbers, but his half-cousin Francis Galton and Darwin's son George saw the advantages of a statistical approach. Indeed, George Darwin became an enthusiastic defender of Jevons. In one paper, the younger Darwin attacked Mill's view of capital and in another wrote a critical review of Cairnes, which Jevons thought more like a defence of his own work (Darwin 1873; Darwin 1875; Jevons to G.H. Darwin: 22

³ 'The shift to physiology and the mathematization of the subject, in short, were twins.' Maas, 624.

April 1874 and 24 Nov. 1874, Black 1977). To that extent it is fair to say, as Schabas did, that Mill's comprehension of science was 'more in keeping with the late Enlightenment' than that of Jevons, who was 'au courant with Darwin and Maxwell' (135-6). Mill indubitably represented an age in which both opponents of the mathematization of economics, such as himself, and advocates, such as William Whewell, were agreed in their determination to keep political economy distinct from natural science; while Jevons represented an age which mechanical analogies, long used in economics, became constitutive and structuring of economic thinking (Maas 279-80). But this does not really tell us much more than we might learn from their respective dates of birth?

Any suggestion that Mill and Jevons stood on opposite sides of a Darwinian divide and that this explains the latter's hostility to the former is certainly wide of the mark. Jevons's specific debt to Darwin was negligible and he expressed disappointment that *The Descent of Man* (1871) had not gone further in criticising Mill (1879, 537fn). Moreover, in some ways, as Winch has noted, Jevons's desire 'to establish the autonomy of a pure deductive science within narrowed boundaries' was 'remarkable' in an era of 'widespread enthusiasm for evolutionary and inter-disciplinary modes of explanation' for representing 'a decisive movement *against* the prevailing intellectual tide' (75, emphasis added). What this comment points to is the complex relationship of the marginalists to Darwinism and the same might be said of psychophysiology more generally.

The weakness inherent in any attempt to understand Jevons's attitude to Mill exclusively in relation to science is that science was no more a bounded domain than political economy. Both existed in interaction with the dominant cultural context and, even in late nineteenth century Britain, this was still primarily a religious context in which questions of morality, ethics, and Providentialism were never far from the surface. Science had long played an important integrative role in British society (see Cannon, 1978), by supposedly revealing the providential order in nature and society, most self-consciously in the *Bridgewater Treatises*, and this continued even after Darwin. An exclusive focus on the scientific context will not help us capture the significance of this for explaining Jevon's divergence from Mill. Indeed, as important as psychophysiology and evolution were, there is a danger that in concentrating on the role of science in his thought we will lead ourselves back in a circle to viewing his animosity to Mill primarily in terms of economic methodology, albeit with a much richer understanding of that divergence contextualized in debates over the relationship of matter and mind, rather than an apparently gratuitous falling out over mathematics. This is an improvement, but it is not the full story, and it risks misunderstanding the deeper meaning of the scientific divergence by underestimating the importance of the religious dimension.

When Jevons defined Mill 'as the last great philosophic writer conspicuous for his ignorance of the principles of evolution,' his concern was with moral philosophy rather than natural science. The book he praised in order to damn Mill was not Darwin's *Origin of Species* but Henry Sidgwick's *The Methods of Ethics* (1874), which he lauded for introducing 'a precision of thought and nomenclature which was

previously wanting' (1879, 535). The evolutionist Jevons praised above all others was not Darwin but Herbert Spencer who had, Jevons declared, 'made a new era in philosophy' (1879, 535). The great advantage of Spencer, for Jevons and many of his contemporaries, was that he allowed one to embrace evolution but retain Providentialism, thus the fourth *Contemporary Review* article, which began by damning Mill's 'ignorance' of evolution, concluded with Jevons's paean to Providence and of man as 'no Automaton, no mere lump of Protoplasm, but the Creature of a Creator' (1879, 538). Jevons, as Winch noted wryly, 'was well on his way to his Bridgewater treatise' (175). Here, at last, we have the keystone to understanding Jevons's hostility to Mill. The sheer vehemence and gross disproportionality of Jevons's language can only be explained by the subject which, above all others, provoked English gentlemen of the late nineteenth century to ire: religion.

The religious dimension

The importance of the 'religious dimension' to Jevons's *Contemporary Review* articles is not obvious if we focus on the texts alone. We need to look up from the texts and study the broader context in which he wrestled with Mill's reputation. The first three articles concentrate their fire on Mill's *Logic* and dissect, in turn, his approach to geometry, his doctrine of 'Resemblance', and his treatment of 'Methods of Experimental Inquiry.' Only in the fourth, where Jevons probed Mill's utilitarianism, and considered sundry remarks from the *Three Essays*, were there any direct references to religious questions. The immediate context for publication,

however, was steeped in religious controversy, with Jevons's contribution following swiftly on the heels of a letter he had sent to *The Spectator* complaining that Mill had not been logical in his *Three Essays on Religion* (Jevons 1877a), and had been foreshadowed by his 1874 contribution to *The Criterion*.⁴ The 1877 letter itself was occasioned by an earlier missive, signed 'G.S.B.', which had accused Mill of 'scientific shuffling and intellectual dishonesty' in his treatment of the question of the immortality of the soul (G.S.B. 1877), and a retaliatory letter to the same magazine in which W. T. Malleson attempted to defend Mill (Malleson 1877). Thus the articles began in religious controversy and culminated in fourth article's identification of a providential Creation, 'working towards goodness and happiness' (1879, 538).

The religious dimension is more obvious in the 'one more settling of the score' manuscript Jevons drafted before his death. Where Jevons wrote that it was 'Not because Mill is erroneous and eccentric in some of his doctrines do I fear the influence of his writings', it is notable that the word 'eccentric' had been inserted only after he had crossed out 'heterodox' and that he later inserted the word 'evil' in front of 'influence', and complained of Mill's 'philosophical nothingness' (JA6/5/42, 3). The planned chapter titles indicate similar concerns. Chapter one was to consider: 'Was Mill logically consistent in publishing his *Essays on Religion*?'; Chapters two and three were concerned with 'Did Mill believe in Free Will or necessity?'; and 'Was Mill a Utilitarian moralist, as he thought himself?'. (JA6/5/87) The draft conclusion makes clear that the planned work would have been broader than the *Contemporary*

⁴ In the *Criterion* letter Jevons declared: "I am aware that the charges I bring against the logical consistency of Mr. Mill's celebrated treatise are of the most sweeping and serious kind; but they are made in the most deliberate manner, and I am only awaiting sufficient good health and leisure to substantiate them in detail."

Review articles in considering ‘the more important parts of Mill’s systematic works on Religion, morals, metaphysics & logic’ (JA6/5/43, 1). Moreover, in both the unpublished manuscript and the *Review* articles, there was a constant refrain of ‘fear’ of ‘Mill’s immense philosophical influence’ (1879, 524), which hinted at a failing much greater than mere ‘illogicality’. The very ‘excellence of style’ of Mill’s writings was made a point of criticism, because it was liable to lull ‘every inexperienced and unwarned reader’ (1879, 521) into getting lost in Mill’s prose, and Jevons presented himself as performing ‘an indispensable service to truth’ in revealing the character of Mill’s ‘sophistical and false’ (1877b, 169) philosophy. Mill’s ‘evil’, Jevons feared, would live after him, in his ‘immense philosophical influence’ and his ‘well united sect’ (JA6/5/43).

This language has perplexed and appalled contemporaries and historians alike, and makes little sense if Jevons’s gripe was primarily about economic methodology. George Croom Roberston, for example, the editor of the psychology journal *Mind*, complained in midst of the *Contemporary Review* articles that: ‘Whatever Mill’s philosophic sins may be, he does not wield anything like the kind of despotic sway that could alone excuse this violence of attack; and Prof. Jevons ought to know it’ (Strachey 1878). Henry Sidgwick made a similar point in relation to political economy, in an appendix to the introduction to his *Principles of Political Economy* (1883) (Sidgwick 1883, 9-11), and almost all historians from Keynes through to Winch have commented upon Jevons’s over-insistent focus on Mill’s ‘influence’ and ‘school’, and the supposed ‘conspiratorial successes of the “Mill faction”’ (Winch, 159). Jevons was well aware of the criticism that his articles had been ‘written with

needless warmth and strength of language' (JA6/5/42, 11) and noted, in his unpublished manuscript that 'Some people even tell me that I am killing a dead horse' (JA6/5/42, 9). His rejoinder to this was a simple 'I do not think so.' The basis for this divergent assessment was that Jevons and his critics were estimating different things. Jevons's attack was grossly disproportionate if the target was economics, where Mill's reputation was waning rapidly, philosophy, where he had never been hegemonic, as his combat with William Hamilton showed, or science, where, as Winch noted, Jevons needed to say no more than that Mill was 'outdated' (172). The ferocity of Jevons's assault, however, becomes comprehensible when viewed as a response to the feared religious implications of Mill's thought. When Jevons wrote of Mill's 'evil' and 'sophistry' and the 'fear' he felt of Mill's 'influence', it was not economics he had in mind.

This was the language of an earlier age's battle against religious unbelief and an indication of what Jevons understood by 'the evil of [Mill's] philosophical character' can be discerned in his gratuitous references, in both the draft 'Introduction' and 'Conclusion' of his unpublished manuscript, to the seventeenth century philosopher Thomas Hobbes. Jevons was 'struck', he claimed, 'by the analogy' between Hobbes and Mill. Both, he said, were prone to 'extravagant statements' – a point Jevons illustrated by comparing Mill's *Subjection of Women* to Hobbes's 'Essay on Humane Nature' – and both, also, 'had a high and mistaken notion of their geometrical knowledge'. Geometry, however, was not foremost in Jevons's mind when he referred to Mill and Hobbes sharing 'sometimes *grotesque* views' (JA6/5/43, emphasis added). Hobbes, of course, was a by-word for atheism. 'Every book hunter', Jevons noted,

‘will remember turning up a dingy volume about “Mr Thos Hobbes his Philosophie Confuted”’, and he envisaged his own volume performing a similar function for Mill. There was, Jevons admitted, nothing new in his criticism; what had refuted Hobbes would serve equally well for Mill: ‘article after article, pamphlet after pamphlet, and even book after book overturned the philosophy of which I am nevertheless giving so elaborate analysis’ (JA6/5/43, 8; JA6/5/42, 8-9). Jevons, that is, saw himself in an anti-atheistic tradition that stretched back two centuries, but his urgency – the ‘over-insistence’ so often noted – was driven by the very particular context of the late 1870s, in which Mill’s ‘philosophical nothingness’ appeared particularly dangerous.

Contemporary concerns

The key to this context was Darwinism. There was little in Jevons’s background to suggest that theology would provide a key motivation in his writings. Jevons was raised in a freethinking Unitarian family far removed from the piety of the Christian political economists of the early nineteenth century (Waterman 1991, Hilton 1988). The death of his father in 1855 provoked a period of religious introspection, and in 1858 he warned his sister Henrietta: ‘do not misunderstand me when I say that I am in some respects an Atheist’. The caveat it transpired was that ‘I almost Deify the love of Man’. At this point, therefore, it would seem that Jevons was infused with a humanistic impulse, and Schabas suggested that it was this religious crisis that led Jevons to make it his ‘mission’ to inquire into the condition of man, and thus shift the focus of his studies from the natural sciences to the social sciences. ‘My whole second nature’, he explained, consists of one wish, or one *intention*, viz to be a *powerful good*

in the world ... To be *powerfully good*, that is to be good, not towards one or a dozen, or a hundred but towards a nation or the world, is what now absorbs me' (Schabas, 1983, 16-17). The missionary zeal aside, Jevons, at this point, would seem to have no particular reason to be troubled by Mill's irreligion. What changed in the 1860s and 1870s was a twofold transformation: both of Mill's reputation, which rendered him an increasingly dangerous and disreputable figure and, simultaneously, the broader intellectual context, in which evolutionary thought redefined the fault lines of belief and unbelief.

Although Jevons dated his doubts about Mill to his first reading of the latter's *Principles* in 1857, it was not until 1868 that he felt moved sufficiently to formulate a detailed critique. The timing is significant. By 1868 it was impossible to evaluate Mill as a political economist, a philosopher, or even as a logician, without implicitly or explicitly taking a stance on his politics. Between 1865 and 1868 Mill served as a Member of Parliament (MP), and proved a prominent and divisive political figure. At the very same moment Jevons 'began to detect a 'fundamental unsoundness' (1877b, 169) in Mill's books, British politics was gripped by the anxieties concerning democratization that accompanied the passage of the Second Reform Act in 1867, and Mill was engaged in a most extraordinary period of activity in which his name was associated with the most controversial issues of the day. It is impossible to overstate just how divisive Mill's name became: he received death threats for his role in the Jamaica Committee; mockery for his championing of female suffrage; and smears, innuendos, and abuse for his association with the radical freethinker Charles Bradlaugh (Mill, CW, vol. 1, 274-288). Whatever the psychological idiosyncrasies of

Jevons's aversion to Mill, his attacks formed part of a broader offensive against Mill and his reputation, which began in earnest during his stint as an MP, provoked Abraham Hayward's infamously impugning *Times* obituary (10 May, 1873), and gathered pace with the posthumous publication of the *Autobiography* (1873) and *Three Essays of Religion* (1874) (Stack 2011; Stack 2017). Jevons, in short, was not unusual in attacking Mill, and not unique in making Mill's *Three Essays* the crux of a broader critique. The 1875 Bampton Lectures at Oxford University, delivered by William Jackson of Worcester College, and reprinted under the title *The Doctrine of Retribution* (1876), for example, similarly took Mill's utilitarianism to task, albeit in more measured terms. Another similarity was that Jackson, like Jevons, placed Mill in a long tradition of infidelity (although with David Hume rather than Hobbes) and thought his task urgent.

This sense of urgency had less to do with Mill directly – especially *after* his death – than with the broader conservative reaction to irreligion provoked by the reception of Darwinism, and which found its clearest expression in the *Contemporary Review*. It was no coincidence that this was the journal where Jevons's critique of Mill appeared. Under its new editor Alexander Strahan (see Srebrnik 1986), the *Review*, was the flagship of a conservative fleet battling religious unbelief. Upon taking up his post in 1877, Strahan stated publicly that the twelve years since 1865 had witnessed intellectual change 'unexampled in rapidity; and nothing has varied more conspicuously than the complexion of public controversy on theological and philosophical questions.' As a result, he detected, an 'increasing mass of cultivated opinion' unfavorable, not only to Christianity but, to any kind of Theism at all

(Strahan 1877). The previous editor, James Knowles, had been removed for giving succor to irreligion by publishing W. K. Clifford's essay on 'The Ethics of Belief' (Clifford 1877), which had argued for a strictly evidential approach to all questions of belief. This was too much for one of the *Contemporary's* owners, Richard St John Tyrwhitt, who feared a cross-disciplinary alliance of 'science, culture, and aesthetics, or their best advertised professors, [...] united by a joint cupidity, founded on a common atheism' (Dawson 195-196). It was the perception of this hydra-headed enemy that created the shared sense of urgency.

As Bernard Lightman (2004) has noted, for 'defenders of the faith' the mid-1870s felt like a 'critical point' in which belief itself was 'under siege' (201), with Clifford's essay, John Tyndall's 1874 'Belfast Address' (Tyndall 1874), and the propaganda around the Bradlaugh-Besant trial of 1877 each deepening a sense of crisis. Mill was often identified with this 'common atheism' (see, e.g., Anon. [Reeve] 1875) in general and with Tyndall in particular, not least in the 'G.S.B.' letter (1877) which heralded Jevons's four articles. There was in the minds of those gathered around the *Contemporary*, that is, a sense crisis, a 'party' of unbelief, and an imperative to take sides. Under the editorship of Strahan, the 'new more doctrinally conservative *Contemporary*,' became 'overtly antagonistic towards the rival *Fortnightly Review's* endorsement of both naturalistic science and aesthetic literature' (Dawson, 196). The fact that science and literature were simultaneously in the *Contemporary's* sights was indicative of the fact that unbelief was not to be treated as a discrete defect, but as part of a broader intellectual failing. The *Contemporary* was to 'render faithfully for general reading in cultivated circles the reserves, the resistance, the reaction of

philosophic intelligence, as distinguished from the merely scientific' (Strahan, 1877), because 'mere' science, as Clifford's essay demonstrated, was insufficient and could be dangerous. Jevons expressed a similar sentiment when, in a letter in 1878, he told Edward Broadfield he would rather be 'unscientific' than line up with "exact thinkers" like Mill' in doubting God's benevolent government of the universe. The lines of division here were not principally between scientists and non-scientists, or Darwinians and non-Darwinians, but between believers and non-believers. Jevons was in no doubt about the side he was choosing. Justifying his decision to accept Strahan's offer to write for the *Contemporary* he wrote: 'I do not always like the company I am in there; and yet, on the whole, their company is more congenial than that of the Comtists who reign in the *Fortnightly*' ((Jevons to Broadfield, 7 April 1878, Black 1977, 250).

The editors of the *Fortnightly Review* were not, of course, 'Comtists', in the literal sense of dedicated followers of the French positivist philosopher Auguste Comte (1798-1857). But by the 1870s, 'Comtist' had become a byword for sceptics and religious non-believers, and Comte's name was most often deployed as a pejorative with which to beat and discredit one's opponents. By 'Comtists' Jevons meant those, like Clifford, who allowed evidence and doubt to prevail over belief, whatever the consequences. Mill fell into this category because whilst the *Three Essays* showed that he understood the utility of religion, he nonetheless allowed his doubts to get the better of him. There was, according to Harriet Jevons, 'a deep religious feeling at the bottom' of her husband's nature, which made irreligious tone of the day 'alien to him' (H. A. Taylor 1886, 451). Jevons himself argued that Mill ought to have

‘endeavored to conceal’ his own lack of belief and persuaded others to maintain theirs (JA6/5/76). Religion, that is, was *the* fundamental, determining factor.⁵ Jevons, in common with many of his contemporaries, wanted to find a way to embrace science *and* maintain belief, and he worked hard to reconcile his acceptance of the theory of evolution with religion. Again, this process paralleled his rejection of Mill. Thus in an unpublished piece written in August 1863 Jevons states that in the four years since Darwin and Wallace went public with their theory he had ‘not ceased’ – no doubt, he says, in common with others – ‘to reflect on their theological bearing’. What troubled him, he explained, was that at ‘first sight’ Darwin and Wallace’s views ‘if true’ would appear to be ‘the actual triumph of atheism’. We would seem, he continued, to have reached ‘the very nadir of Religion’ with the mind reduced to matter and matter made ‘the manifestation of Blind Law or of Blind chance’, and no room left to see the universe governed by the ‘law of an ever Thinking, Acting & Benevolent Creator’. This was not something Jevons was prepared to accept. His predisposition to natural science rendered him unable to reject evolution outright, and he sought to broker an unlikely compromise: ‘The theory of natural selection,’ Jevons declared, ‘will complete instead of destroying the old natural theology.’ How this would be done, he wrote, he would ‘not hesitate to express’. Frustratingly for us, it is at this point that the scrap of paper on which he was writing runs out (JA6/36/1).

We can, however, see what Jevons had in mind from his published works, supplemented by some of his unpublished pieces. In essence, Jevons strove to

⁵ We might, for example, have expected the advocates of psychophysiology, having elided mind and matter to be all but atheists. In fact, psychophysiology gave rise to no clear position. Jevons aligned himself with the *Contemporary Review* and protested against Mill’s atheism. Another advocate psychophysiology, John Tyndall, by contrast, was precisely one of those atheists the *Contemporary Review* feared. Tyndall, who was also an evolutionist, was, on the question of religion, closer to Mill.

reconcile evolution with Design, by developing a utilitarian argument that drew self-consciously upon the eighteenth century Anglican theologian William Paley, updated into the evolutionary language of Herbert Spencer. Paley had made an ‘overbalance of good’ argument, in which the evils of the natural world were only ever ‘partial evils’ rendered compatible with Design, and a beneficent Designer, by their tendency to produce a greater, long-term good. Jevons detected the same ‘overbalance of good’ in the evolutionary process. He paid only lip-service to Darwin’s caution that natural selection did not always lead to ‘higher and happier types of life,’ and recast ‘retrogression’ as a form of improvement: ‘the being becomes more suited to its circumstances – more capable therefore of happiness’. Pain and evil, that is, were acknowledged as only superficially ‘sinister and ungenial’ and, in fact, provided evidence of ‘a deep-laid scheme working towards goodness and happiness’ (1879, 538). This argument was many things but it was not, on any definition, Darwinian. Indeed Jevons was engaged in nothing less audacious than identifying evolution with one of the principal targets Darwin had in mind when drafting the *Origin* – Paley’s notion of Design.⁶

It also pitched Jevons against Mill in three interrelated ways. First, he had to wrestle utilitarianism from one who, Jevons noted acerbically, had come to regard himself as the ‘almost hereditary representative of the utilitarian theory’ (JA6/5/42, f.2). Second, he needed to celebrate Spencer over Mill (as well as Darwin) as a philosophical guide, and this he did in quite revealing terms: ‘judged by their *ultimate tendencies* the

⁶ As one newspaper put it in its review of Jevons’s fourth *Contemporary Review* article: ‘Professor Jevons unhesitatingly expresses his preference for the philosophy of evolution – an all-prevailing tendency towards the good and the happy – to the ethics of utilitarianism as interpreted by Mill.’ *Aberdeen Weekly Journal* 4 Nov. 1879 ‘Magazines for November’.

philosophy of Spencer is infinitely to be preferred to that of Mill' (JA6/5/77, emphasis added). For Jevons, the ultimate tendency of Spencer's writings was the completion of Paley's natural religion; the ultimate tendency of Mill's was atheism.⁷ Third, he wished to discredit Mill's view of a godless, directionless, warring nature – which Mill had outlined in the first of his *Three Essays* – and this is where Spencer's utilitarian providentialism was indispensable. In the fourth *Contemporary Review* article, Jevons's critique culminated in the contrast between Mill's view of humans as 'little self-dependent gods, fighting with a malignant and murderous power called Nature, sure, one would think, to be worsted in the struggle' and Spencer's vision of man as 'the latest manifestation of an all-pervading tendency towards the good – the happy' (1879, 538).

In his clearest statement, Jevons wrote:

I know nothing more horrible nor more untrue than the picture which Mill has drawn of the universe of existence in his grotesque *Essays on Religion*. The horrendous torturing cruelty of nature; the self dependence of poor little mortals, destined to struggle with nature in the hope of reforming her; the evanescent mocking hope that perhaps after all the state of things may not be quite so bad; there may possibly exist a God or even a Jesus Christ; and we

⁷ 'Paley pointed out how many beautiful contrivances there are in the human form, tending to our benefit. Spencer has pointed out that the Universe is one deep-laid framework for the production of such beneficent contrivances. Paley called upon us to admire such exquisite inventions as a hand or an eye. Spencer calls upon us to admire a machine which is the most comprehensive of all machines, because it is engaged in inventing beneficial inventions *ad infinitum*. Such at least is my way of regarding his Philosophy.' Jevons, 1879, 538.

must make the best of this faint possibility. This is cheerful indeed and this is what we reach by following philosophy devoid of logic. (JA6/5/77-78)

The concluding sentence is the most revealing because it points to the fact that all Jevons's criticisms of Mill's logic are implicitly concerned with removing the philosophical basis for his lack of religious belief. This was the crucial point Jevons returned to in the draft conclusion of his unpublished manuscript. He wanted to demonstrate inconsistency as 'a prevailing characteristic of Mr Mill's thought' because he wanted to show that the inconsistencies between the first and second essays on religion did not stand-alone (JA6/5/49). To do this he made explicit the interconnected nature of his critique in the draft conclusion. 'Illogicality' is the constant refrain, but the admonition is more fundamental than showing Mill to be confused: 'My principal purpose has been to show that his intellect was essentially illogical, *so that no portion of his writings should be accepted as logical or authoritative because he is supposed to have been a great logician*' (JA6/5/43, emphasis added). The 'portion', more than any other, which Jevons did not want accepted was Mill's lack of belief.

Conclusion

The ideological interstice separating Jevons from Mill was above all else a matter of belief. It follows that the problem of explaining the depth of William Stanley Jevons's hostility towards John Stuart Mill can only be resolved by giving sufficient consideration to the 'religious dimension'. Religion, or more accurately fear of

atheism, lay at the root of Jevons's animus. Jevons's focus on Mill's intellectual character, especially the character of his logic was proxy for a more fundamental criticism: Jevons attacked Mill's view of logic, because he wanted to undermine Mill's view of man, and he wanted to undermine Mill's view of man because it threatened belief in a benevolent providentialism.⁸ This is not to deny that there were real and significant differences over economic method (Peart 1995; Peart 1996; Grattan-Guinness 2002) or that there was a 'psychological dimension' to Jevons's attitude, rooted in the idiosyncrasies of his character. Least of all is it to deny the importance of the 'scientific dimension', especially the significant divergence between Jevons's psychophysiology and Mill's associationist psychology. Yet even when these 'three dimensions' – economic, psychological, and scientific – are taken into account there is still a nagging insufficiency of explanation. Our contention is that the extraordinary bitterness, urgency, and vehemence of Jevons's assault can only be explained by incorporating a 'fourth dimension': religion. Jevons was as complex as any other thinker of the late nineteenth century, and all four dimensions - economic, psychological, scientific, and religious - intersected and intertwined in his writings. Nonetheless, when we look up from Jevons's texts, to study the context in which he wrestled with Mill's posthumous reputation, we can see that the depth of his hostility is only fully explicable as an expression of late-1870s, anxieties over unbelief.

⁸ 'We are not little self dependent gods fighting with malignant nature, and sure, one would think, to be crushed.' Rather we are 'manifestations of an all prevailing tendency toward the good and the beautiful. We are the latent spring of creation, and as in the workings of material nature' – we are a confirmation of the feelings of good in the human heart.' JA6/5/80-81

This has interrelated implications for the study of the history of political economy in the 1870s more broadly. The case of Jevons's hostility to Mill illustrates the existence of complex, crisscrossing patterns of alliances and intellectual allegiances in late nineteenth century economics, which cannot be reduced to simple binary divisions, such as Darwinian or non-Darwinian, or explained by a single context, such as 'science'. What the Jevons-Mill case shows is that contextualising economic thought means studying as broad a range of contexts as possible. In particular, science, scientific methodology, and a philosophy of science cannot be considered as a self-sufficient context for understanding the development of economic thought in this period. There was 'no clear dividing line between science and the wider culture' (Smith 2004, 81), but a continual eclectic intellectual interweaving of what we might today regard as discrete areas of knowledge. Religion remained culturally important and Providentialism, even when it lurked in evolutionary garb, retained a place in economic theory and thus needs to remain a concern of historians of economic thought writing about the 'marginal revolution'. By placing religion at the heart of our explanation of Jevons's attitude towards Mill we are reminded of the need to routinely consider religion and religious concerns when analyzing later nineteenth century political economy. This has long been standard practice for the earlier nineteenth century and we need to bear in mind that the relevance of this context did not end abruptly with the publication of the *Origin of Species* in 1859, but persisted alongside the integration of ideas from the natural sciences into economics.

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