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THE FUTURE OF THE WORKING CLASSES: A COMPARISON BETWEEN J.S. MILL AND A. MARSHALL

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Abstract. Both J. S. Mill and A. Marshall had a lifelong concern with the living conditions of the working classes and theorized the possibility of a new age, characterized by a widespread mental and moral cultivation. This paper compares the precise arguments put forward by them in the period ranging from Mill's "The Claims of Labour" (1845) to Marshall's "Principles" (1890), against the background of the evidence of progress they had. It is argued that, at different stages and with different specific arguments, their predictions relied on self-reinforcing mechanisms, in which a better life was the cause, no less than the effect, of progress. In order to make similarities and differences more transparent from a logical point of view, two simple mathematical formulations are proposed.

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1. Introduction

It was probably no mere coincidence that in the year in which Mill died (on 8 May 1873) and his *Autobiography* had been published, Marshall agreed to deliver a speech on "The future of the working classes" [1] – the same topic of Mill's celebrated chapter "On the Probable Futurity of the Labouring Classes". We know, in fact, that Mill's *Principles* had an "enormous influence" (Groenewegen, 1995, p. 145) on Marshall's economic apprenticeship, that Marshall shared with Mill (and others, of course) a conception of economics as a science whose main *practical* aim was to contribute a permanent amelioration in the condition of the working classes[2], and that few questions had been as constantly debated in the period ranging from the first publication of Mill's *Principles* in 1848 and the year of Marshall's conference (and beyond) as much as the "labour question".

At the beginning of his conference, then, Marshall mentions Mill's *Autobiography* and the relevant chapter of his *Principles*, and very explicitly says that:

> The course of inquiry which I propose for to-night will *never lie far apart* from that pursued by Mr. and Mrs. Mill, but it *seldom exactly coincides* with it. (Marshall, 1925 [1873], pp. 101-2; emphasis added. As Marshall remarked, Harriet Taylor Mill had an

[1] Marshall's speech had been read at the Cambridge Reform Club on 25 November 1873. A few months earlier, he gave a series of *Lectures to Women* on similar broad topics. The latter have been recently published with extensive commentary in Raffaelli, Biagini and McWilliams Tullberg (1995).

[2] Quoting again Groenewegen, "The problem which guided Marshall's work throughout the whole of his life [was that of] raising the standards of life of the working class until they had reached those of 'gentlemen'" (Groenewegen, 1994, p. 278). Along similar lines is the interpretation of Himmelfarb, 1991, pp. 285-300 and the seminal contribution of Parsons (1931, p. 132). Similarly, Mill considered scientific principles as a means to "help build a better society (...), his main concern was with practical applications (...) and foremost among the practical questions he considered was that of equality" (Schwartz, 1972, p. 193). With special reference to poverty, see also Ekelund Jr and Tollison, 1976.

important role in the writing of Mill's *Principles* and of the abovementioned chapter in particular).

Marshall's own *Principles*, and its last chapter, in particular, almost twenty years later, elaborated on similar ideas, albeit in a more balanced form.

Since the definition of the aspects in which Mill anticipated Marshall, and departed from the Ricardian tradition, is highly debated (e.g. Groenewegen, 2005), it will be of some interest, in this paper, to examine the precise similarities and differences alluded to by Marshall in the above quoted passage, and to extend them, with the necessary modifications, from the conference paper to Marshall's *Principles*.

This will lead us to deal with some difficult and important questions which still await a comprehensive answer: how could Mill predict the coming of a Millennium of society, so different from the "stationary state" of Smith and Ricardo, while their theories of value and distribution were so similar? Conversely, how could Marshall share many of Mill's views on "the probable futurity of the labouring classes", and yet develop a completely different theory of wages?

Our questions clearly require some detailed evidence of the progress made by the working classes in the relevant period from the 1830s to the 1880s. To this purpose, we present, in section 2, a succinct account, from the standpoint of some qualified observers of the time. Then, in section 3, we turn to Mill's inference from Malthus's principle of population and, in section 4 discuss Mill's conception of the 'ultimate' aims of economic progress in terms of mental and moral cultivation. It will be argued that Mill based his predictions on a self-reinforcing mechanism in which a rising standard of comfortable living determined a check on population growth, and conversely. A simple mathematical formulation is provided in section 5. Marshall's 1873 conference paper is analysed in section 6 and the further elements introduced in the *Principles* are discussed in section 7: we argue that Marshall, too, ended up with a logically similar self-reinforcing mechanism in which a

rising standard of life determined an increase in efficiency and wages, and conversely. An elementary mathematical formulation which parallels that concerning Mill is proposed in section 8. The final section concludes.

2. The progress of the working classes from the 1830s to the 1880s

Mill's and Marshall's perceptions of the possibilities of the working classes in England depended, of course, on the progress that the latter made after the industrial revolution, and notably in correspondence to the changes introduced by the factory legislation around the middle of the 19th century. We should, therefore, preliminarily present a succinct account of this progress, from the standpoint of some qualified observers of the time.

J.M. Ludlow (a lawyer) and Lloyd Jones (a former workman of Manchester), wrote in 1867 a book full of testimonies, detailed descriptions of facts and statistics which enthusiastically argued a marked material, moral, intellectual, and political progress of the working classes in the aftermath of the Reform Bill of 1832. Since we know that Marshall valued their *Progress of the working class: 1832-1867* very highly[3], and since the period taken into consideration embraces both the time of Mill's writings and that of Marshall's economic apprenticeship, it is proper to consider this book as our main reference.

Ludlow and Jones contrasted sharply an early period of the industrial revolution, which was characterized by "large fortunes (...) made by numbers of men" (p. 9), but also by the worst educational, moral and physical aspects of the new factory system, the legal

[3] Marshall's examination of Ludlow for the "Labour commission" in 1893 (Marshall, 1996, pp. 129-132) testifies of this high consideration. Mary Paley Marshall reported that some members of a Working men's College, in the course of a visit at Balliol Croft, had been impressed by the fact that "he was enthusiastic about Ludlow, and evidently valued his work highly" (Paley Marshall, 1947, p. 44).

obstacles to worker associations[4], the destruction of many old artisan's trades, low and fluctuating wages, uncertainty of work, bitter contrasts between workers and employers, with a later period, which they date from 1832, characterized by a social regulation of the factory system, the development of Trade Societies, steadily increasing wages, steadier labour market conditions, and a strengthening in character, intelligence and social consciousness of the working classes. This picture broadly corresponds to that given a few years later by Toynbee in his *Lectures on the Industrial Revolution*[5], and to that given statistically by Giffen (1886).

The paramount feature of Ludlow and Jones's report[6] is the social, *national* gain from the overall advancement of the working classes. Not only did the individual worker, or even a class of workers, benefit from the steady shortening in working hours, sanitary and educational provisions, voluntary associations for social security and labour bargaining, and co-operation in retail trade and production; all this, they argued, was also in the interest of the nation, because it encouraged loyal national feelings and the spirit of citizenship (p. 286); and it was also in the specific interest of the employers, because productivity had increased and social conflict had softened. The main message contained in a memorial of master-bakers of Edinburgh and Leith to master-bakers of London, summarizes a leading theme of the entire book:

> From the improved condition of men, the masters receive no small share of the benefit. They are more diligent and active in their work, more regular and trustworthy in their

[4] The so called "Combination laws" of 1796 and 1799, which made any voluntary worker association legally impossible, had been repealed in 1824 and replaced by the Combination Act of 1825, which allowed Trade Societies, but still severely restricted their activity.

[5] Toynbee positioned the turning point in 1846, when the Corn Laws had been repealed and protectionism had been abandoned in favour of a new free trade legislation. On the social distress of the early period, see in particular, Toynbee, 1890, pp. 91-94; on the improvements since 1846, see pp. 144-147.

[6] Even though it concerns mainly the English workmen of the manufacturing districts, there are also a series of testimonies and data on miners, sailors, artisans, while little is said on agricultural workers "a class (...) amounting to less than half of the industrial class, and which diminishes as the latter increases" (p. 4).

habits (...). In a word, the masters do not hesitate to say that even in a commercial point of view; the change has been to them a great advantage.

This leads us to a second major thesis of Ludlow and Jones: that the *public opinion* on factory labour and its possibilities drastically changed in the post-1832 period. Around 1832, they argue, with a certain sense of drama, that there had been a "great awakening" (p.87) "amongst the thoughtful and intelligent portions of our working people in the manufacturing districts of Great Britain" (p. 85) first, and then in the factory operatives, who "had opened their eyes and had seen, not their nakedness alone, but also their corruption, their degradation, their rapidly approaching moral death" (p. 87). The shaping of this new opinion on the possibilities of factory labour has been mostly determined, of course, by Trade Societies. Symmetrically, also the public opinion more sympathetic to employers changed very much. Around 1832, the employers opposed the claims of labour on the argument that short hours and high wages would diminish domestic production in favour of foreign competition, lead capital to migrate abroad, induce workers to spend in the public-house their higher wages and their longer leisure time, lead children to run in idleness around the streets, and women to be deprived of their income (p. 91). Since all this did not happen, they argue, public opinion slowly changed and became aware of the common benefits of the new regime. In this respect, they are keen to notice that:

> It would scarcely be too much to say, that the humble factory worker, through his perseverance in enforcing righteous legislation, has been the great civilizer and moralizer of his employer (Ludlow and Jones, 1867, p. 112).

A third important aspect is education. Apart from general children education in public and private schools, which had been a major theme of discussion amongst social reformers in Great Britain around the middle of the 19th century, Ludlow and Jones present much evidence of the progress made in a variety of less formal institutions and associations specifically designed for workers of various ages. The shortening of daily working hours and of Saturday

work opened many possibilities: the old Sunday schools proved of far more value to the adult than they originally were to the children (p. 167), the Evening Class was becoming an even "more effective means of adult education" (p. 168), the Union of Mechanics' Institutes "have born excellent fruit, springing up almost of necessity wherever the spirit of association is strongly manifested" (p. 170), like the Working Men's Colleges, Clubs and institutes (pp. 174-180). The spreading among the working classes of reading rooms, cheap newspapers and literature made the working man "a man of fuller information, better judgement, and wider sympathies than the workman of thirty years back, who had to content himself with gossip and rumour" (p. 187). This intellectual advancement made a series of rational forms of recreation well received by some working people. The activities, which were, in the judgement of the Authors, often baneful and degrading, like betting, were being somewhat balanced by more refined ones, so far reserved for the upper and middle classes, like literary and musical entertainment, cricket, rowing, excursions, and industrial exhibitions. All this flourishing of workers cultural associations and this new demand for rational recreation had been fostered by general worker associations and by Trades Societies, in particular[7].

As we shall see, both Mill and Marshall, from their different standpoints and with their different emphases, had a precise perception of the main qualitative aspects of the intellectual and moral progress of the working classes which Ludlow and Jones have so enthusiastically described.

3. J.S. Mill and Malthus's principle of population

During J.S. Mill's lifetime (1806-1873), then, the personal and social possibilities of the working classes in Great Britain made a qualitative leap forward. This was so, both from an

[7] 'We believe that there is no school like that of the Trade Society to teach the working man the value of [individual strength, sobriety, mutual trust and confidence, and distrust of the noisy, the plausible, the violent, the self-seeking]; that it has taught and is teaching it to them' (Ludlow and Jones, 1867, p. 228).

objective point of view, and in public opinion. Accordingly, also the perception of *future* possibilities had been continuously updated.

Mill traced the beginning of a positive intellectual climate towards a happy future of the working classes back to the appearance of Malthus's *Essay on Population*. This is a paradox, of course, as he recognized, because the first edition of the *Essay* was meant precisely to *contrast* the visions of indefinite social improvement proper to French Enlightening authors, like Condorcet, and the English supporters of the French Revolution, like William Godwin. Nevertheless, Mill argued that Malthus's explanation of misery:

> ...afforded a sure hope, that what accelerates that progress [intellectual and moral] would tell with full effect upon the physical condition of the labouring classes. (...) Whatever accustoms [people at large] to require a higher standard of subsistence, comfort, taste and enjoyment, affords of himself, according to this encouraging view of human prospects, the means of satisfying the wants which it engenders. In every moral or intellectual benefit conferred upon the mass of the people, this doctrine teaches us to see an *assurance* also of their physical advantage (Mill, 1967 [1845], p. 368; emphasis added).

Malthus himself, as we know, presented more moderate views in successive editions, and Mill credited him with having "*abandoned* the mistaken inferences he had at first drawn from his celebrated principle, and adopted the very different views now *almost unanimously* professed by those who recognise his doctrine" (p. 267; emphasis added); "notwithstanding the acknowledged errors of his first edition, few writers have done more than himself, in the subsequent editions, to promote these juster and more hopeful anticipations" (Mill, 1929, p. 747). There is an important difference, however, between an early 'intelligent' Malthusianism and the neo-Malthusianism of Mill. The former considers the moral restraints to population growth as an abstract possibility, while the latter takes them seriously also as a practical possibility within reach of the coming generation of workers. The position of D. Ricardo can

perhaps be considered as representative of the former view. In the Second Edition of his *Principles*, he stressed the positive inference from Malthus's principle:

> The friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertions to procure them. There cannot be a better *security* against a superabundant population (Ricardo, 1951, p. 100; emphasis added).

Mill's "assurance" clearly corresponds to Ricardo's "security". There was no logical necessity, according to *both* of them, that any wage rise should automatically be transformed into an increase in marriages and fertility: they can simply lead to more "enjoyments". Ricardo also added, however, that:

> Although this *might* be the consequence of high wages, yet so great are the delights of domestic society, that in *practice* it is invariably found that an increase of population follows the amended condition of the labourer (Ricardo, 1951, p. 407; emphases added).

This was no longer so during Mill's times. Mill, unlike Ricardo, could *observe* the intellectual and moral improvement of the factory worker of England described in the previous section. From his standpoint, there was, therefore, a reasonable hope that the "moral restraint", which was then practised by the middle classes and by the skilled artisans, could spread to the more progressive parts of the working classes. Besides, it could not escape his attention that those classes were rapidly rising in numbers at the expense of the less progressive agricultural workers[8]. Also, unionisation had a positive effect on self-restraint, both by educating workers to self-dependence and by securing high wages[9]. As society progressed, then, the habits proper to the then middle classes were assumed to prevail:

[8] In Porter's estimate (Porter, 1951, p. 54), the number of agricultural workers in Great Britain, which were 31.51% in 1831, dropped to 25.93% in ten years. Forty years later, Giffen estimated they had fell to 12.5%: see Giffen, 1886, p. 36.

[9] Mill's Malthusian argument in support to trade unions is scrutinized by Ekelund and Kordsmeier, 1981, pp. 531-535.

> A well educated laboring class could, and we believe would keep up its condition to a high standard of comfort, or at least at a great distance from physical destitution, by the exercise of the same degree of habitual prudence practiced by the middle class (Mill, 1967 [1845], p. 379; emphasis added).

A further element of contrast with Malthus and early Malthusianism was, of course, Mill's well-known positive attitude towards birth control, which also helps explaining his optimism[10]. At the end of his life, then, Mill could say that:

> Malthus's population principle we [he and his Benthamite colleagues] took up with ardent zeal in the *contrary sense* as indicating the sole means of realising that improvability by securing full employment at high wages to the *whole labouring population* through a voluntary restriction of the increase of their numbers (Mill, 1989 [1873], p. 94; emphases added).

This interpretation of the population principle in the "contrary sense" is the main conceptual basis of Mill's optimism. The intellectual and moral progress of the working classes provided the main empirical justification. There was also an *ethical* justification, however, without which his vision of the future cannot properly be understood.

4. J.S. Mill and the ethical aims of economic progress

Mill asked very explicitly "towards what ultimate point [was] society tending by its industrial progress" (Mill, 1929, p. 746), and was anxious to answer that in all likelihood it was tending to a good life for the population at large. Such a possibility was also at the very heart of Marshall's prediction, and we should therefore enter into some detail.

We know that in his *Past and Present*, T. Carlyle protested against a "Mida's" new economic system whose achievements were unable to improve *the life* of the people: the

[10] While Malthus considered contraception an evil even worse than misery, Mill (like his father) always supported it to the point of being arrested, apparently in the Summer 1823, for distributing birth-control literature. See Schwartz, 1972, p. 28, and Appendix 2. Contraception happened to be legalised in England in 1877.

efficiency of factory labour and the abundance of production were, in his evaluation, an "enchanted fruit" such that "no man shall be better for it" (Carlyle, 1845, p. 1). His famous description of the 1842 "Manchester insurrection" in which a million "hungry operatives" rose up in testimony of their poor conditions, was in his opinion a proof of the inability of the new economic machinery to deal with true condition-of-life issues. Carlyle's "sermons", condemning "mammonism" and praising a modest but intellectually refined life, very much influenced the old British type, and can hardly be underestimated. Since Mill had a lifelong acquaintance with him and for a long period he was "one of his most fervent admirers" (Mill, 1989, p. 138-139), no explanation of his prediction on the future of the working classes can ignore Carlyle's influence.

Mill's explicit condemnation of some characteristic aspects of the social life of his time, like "trampling, crushing, elbowing, and treading each other's heels", as "disagreeable symptoms of one of the phases of industrial progress" (Mill, 1929, p. 748) can be interpreted as a concession to Carlyle's criticism. The struggle for riches and an increased material production per se, were indefensible on ethical grounds and were a "false ideal of society" (Mill, 1929, 752). Mill could never accept, therefore, that that kind of progress should have no other final goal than that of increasing the numbers of the population, as predicted by the economists of the past two generations. He *needed* some kind of theory in support of an improvability in the conditions of life, and found it in a proper interpretation of the population principle. *Assuming* that such an improvability was fully in view of the current generation of workers, as he believed it was, the industrial progress and its "disagreeable symptoms" could be *temporarily* accepted as a means for fulfilling an end of a higher order. When he refers to the ultimate aims of economic activity in terms of "mental and moral cultivation", "intellect and virtue", "higher aspirations", enjoyment of the "graces of life", "heroic virtues", and the "greatest perfection of human nature", he was, at the same time, reverting to Enlightenment views of human progress and accepting the main spirit of Carlyle's metaphysics. Mill had,

therefore, to depart sharply from the "dismal scientists" and predict a stationary state characterized by:

> ...a well-paid and affluent body of labourers; no enormous fortunes (…) but a much larger body of persons than at present, not only exempt from the coarser toils, but with sufficient leisure, both physical and mental, from mechanical details, to cultivate freely the graces of life (Mill, 1929, Book IV, Ch. VI, § 2 p. 750).

While sharing Carlyle's human goals, Mill, of course, disagreed on the means by which they could be attained. He abhorred the nostalgia for the old system of social duties and protection, and argued in favour of self-dependence. At the time in which the factory laws were providing "that the labouring classes shall earn more, work less, or have their lot in some other manner alleviated" (Mill, 1845, pp. 365-366), there was discussion about the duties of the employers to the employed; Mill insisted that the "old times" of protection were over, and a new sense of social dignity was developing among the working classes, and that this was good. He recognised the 1832 Reform Bill as an important turning point and thought that the sole effective means for a permanent improvement was the education of the population of all ranks to forms of rational behaviour: practically none of the forms of association and of the new social habits recorded in section 2 escaped Mill's attention.

5. Mill's trade-off between population growth and the standard of comfort: a formalization

Ethical progress was, therefore, a means no less than an end of economic progress, according to Mill. The precise mechanism leading to this positive self-reinforcing mechanism involved theoretical considerations which are worth analysing in some detail.

Mill assumed, like Ricardo, a minimum "habitual standard of comfortable living" (Mill, 1929, p. 161), below which, the population (or its rate of growth) stops rising. This minimum (not fixed, of course) concerned the lower ranks of society. A rising fraction of the

population, and prospectively all the labouring population, however, were above the minimum, and had the dignity and self-respect to make fertility a matter of choice. Now Mill stressed *an inverse relationship* between comfortable living and fertility: the higher the number of children, the lower the standard that can be passed on to them, and vice versa. It follows that, at a given wage, there was a critical habit in respect to population which permits a labourer to pass on to his family a constant habit in respect to comfort (Mill, 1929, p. 159). A higher (lower) fertility would worsen (improve) it. This can be easily formalised as follows.

Let us denote by n_t the rate of population increase, by S_t an index of comfort, and by w_t the real wage, all referred to time *t*. The trade-off between population and comfort, at constant wages, can be expressed as

$$w_t - (\alpha n_t + \beta S_t) = 0 \qquad [1]$$

where α and β are positive parameters.

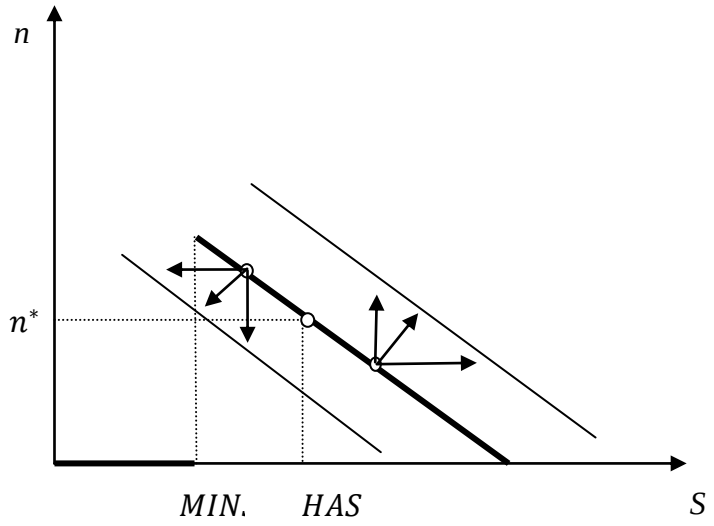

Figure 1

Of course, because society is heterogeneous in regard of wages, fertility, and comfort, we should represent each social group with different equations. Since, however, Mill expected convergence towards the *qualitative* life styles of the then middle classes and skilled artisans, we can consider [1] as an average trade-off for the society as a whole. In the interest of

simplicity, the value of S in Equation 1 is assumed to be always greater than or equal to a minimum (no matter whether fixed or variable).

At a given time, and at given real wages, we may therefore represent the trade-off as in Figure 1. Any point on the downward sloping straight line may be chosen, depending on the social attitudes concerning comfort and fertility. Nothing assures, however, that the point where society is, can establish *habitual* standards. A certain standard of comfort becomes *habitual* if it can be (and actually is) transferred from one generation to the other. This requires that S_t, n_t, w_t be stationary. *In given economic circumstances*, however, the wage at time $t+1$, depends on the rate of population growth at time t, so that the trade-off in Figure 1 is liable to *vary* in relation to the choice made at time *t*. Assuming (temporarily) the rate of capital accumulation at time t as given, we may postulate a relationship between w_{t+1} and n_t, or, by Equation 1, between w_{t+1} and S_t:

$$w_{t+1} = F(S_t), \quad \text{with } F'(S_t) > 0 \quad [2]$$

At any given wage at time t, the habitual standard, HAS, can thus be defined as

$$HAS_t(w_t) = F^{-1}(w_t) \quad [3]$$

It will be clear that, in the given economic circumstances, comfort standards, population growth and wages are constant (and the trade-off is constant, as well) if $S_t = HAS_t$. Should workers "choose" a point where $S < HAS$, the trade-off would shift downwards, determining a Malthusian impoverishing mechanism with falling real wages and further diminishing comfort standards, until the minimum (or perhaps a new, lower minimum) is reached, and the positive check, at last, becomes effective. Mill, however, paid special attention to the *opposite* case, in which the desire to *improve* the conditions of life spontaneously leads to further voluntary reductions in birth rates. The actual comfort standard, then, rises above the HAS, and population growth drops below the "constant wages" rate: real wages, therefore, *rise*, and the trade-off shifts "upwards".

The diffusion of social habits aimed at improved comfort through further restraints in fertility, is the main force driving a *permanent* increase in real wages, and to still further ameliorations in living standards.

The above argument presumes, of course, that *all the other economic circumstances*, and, in particular, the effective desire of accumulation, are given. In Mill's theory, this cannot be so indefinitely, because the rise in wages involved a falling rate of profit and thereby a falling "effective desire of accumulation" (Mill, 1929, p. 165), thus eventually leading to Mill's stationary state, characterized by high wages, high living standards and very moderate habits of fertility[11].

Mill borrowed from Ricardo the idea that technical progress (as well as openness to new international trade) can only *postpone* (rather than prevent) the attainment of a stationary state. It is worth noting, however, that on the Millian path to the stationary state, the effect of technical progress was *not* that of increasing population, but that of increasing real wages: in terms of Figure 1, technical progress, by dropping the price of commodities relative to wages, is an independent source of an upward shift in the trade-off, and a morally progressive laboring population would increase its standard of comfortable living at a constant or falling rate of population growth.

6. Marshall's 1873 conference paper

Marshall's claim that his conference paper never departed sharply from Mill's treatment of the subject, is perfectly justified. It is true that he paid no tribute to the Classical conception of diminishing rates of profit, capital accumulation and population growth. Yet in his "fancied country", that "next" stage of human civilization, the prospective manner of living of the

[11] We need not formalize here these further aspects, which are very similar to those of standard Classical theory. The interested reader can be referred to a forthcoming paper of this writer, which will be published in the *Festschrift* in honor of Ian Steedman, Rutledge.

working classes, was characterized in the same way as in Mill's stationary state. Moreover, to be precise, Mill's stationary state made ample room for "all kinds of mental culture, and moral and social progress" (Mill, 1929, p. 751), and this has a counterpart in the "continued and progressive prosperity" (Marshall, 1925, p. 114) of Marshall's fancied country. Whether capital, production and population would be strictly constant, or slowly and steadily growing, is decidedly of minor importance. Marshall's formulation of the conditions in which his fancied country was to start, then, corresponds to Mill's characterization referred to above:

> Our fancied country (...) is to have a fair share of wealth, and not an abnormally large population. Everyone is to have in youth an education which is thorough while it lasts, and which lasts long. No one is to do in the day so much manual work as will leave him little time or little aptitude for intellectual and artistic enjoyment in the evening (Marshall, 1925, p. 110).

We need not insist here on Marshall's adherence to Mill's broad ethical conception of material wealth, as merely a means for fulfilling the true end of mental and moral cultivation of the population at large (cf. Marshall, 1925, p. 117). Apart from the direct influence that Mill exerted on Marshall, this broad conception had deep roots in a certain moral imagination which characterized the Victorian Age[12], and which Mill's generation (and Mill himself) contributed to shape. Like Mill, "Marshall desired to create a vision of a more joyful political economy to eliminate the description of 'dismal' with which Carlyle had saddled it" (Groenewegen, 1995, p. 141). In so doing, both of them contrasted a "conservative" view, which argued against the possibility of any real, permanent progress in the life of the working people. Mill opposed an improper interpretation of Malthus's principle. Similarly, Marshall's conference paper was aimed at opposing what he called a "Pagan belief":

[12] A fond interest in the standard of life of the working class was very common among Late Victorian intellectuals, as the beautiful study of Himmelfarb (1991) shows. For a valuable survey of the Anglican ethics in Marshall's times, see Biagini, 1995.

> ...that it is an ordinance of Nature that multitudes of men must toil a weary toil, which may give to others the means of refinement and luxury, but which can afford to themselves scarce any opportunity of mental growth (Marshall, 1925, p. 109).

On the strength of industrial progress, both of them argued that there was no economic and moral hindrance to a marked progress of the working classes. More precisely, as we have seen in § 2, the main conservative argument against the "claims of labour" was that shorter hours, higher wages, and general factory legislation, would lead exports to be reduced and/or capital to migrate, and workers to spend their leisure time and their increased wages unwisely, thus ruining the economy. Ludlow and Jones argued that this did not happen, and Marshall took pains with presenting more analytical arguments. On the (implicit) basis of a theory of international trade in which only *relative* prices and *reciprocal* demand mattered[13], Marshall argued that "a high rate of wages, or short hours of work, *if common to all industries*, cannot cause a country to be undersold" (Marshall, 1925, p. 112; emphasis added): the "doctrine" then professed by "some of our public men" was therefore "a fallacy" (Ibid.). As far as migration of capital was concerned, Marshall used two of his most favourite arguments; one was that, in his fancied country, "labourers would be highly skilled and (...) the capitalist can afford to pay almost any rate of wages in order to secure highly skilled labour" (Marshall, 1925, p. 113), and the other was that short hours of labour do not mean short hours of work of the *machinery* - he saw in labour shifts, a very effective means by which the time of rest and leisure of the workman could be increased without a loss in efficiency and production. A further argument concerned the prospective spread of production co-operatives, which, by definition, can never be tempted to migrate. Marshall quotes here "Mr. and Mrs. Mill", even though he evidently disagrees with the possibility that hired labour could be *entirely* replaced by collective ownership of capital: he maintained that "*all* industries might be *partly*

[13] Marshall's early diagrammatic exposition of a trade theory based on reciprocal demand was to be privately published a few years later, in 1879. See Marshall (1930).

conducted by capitalists", while "in *many* industries production would be *mainly* carried on" (Marshall, 1925, p.113) by co-operatives.

All these arguments can be somehow refereed back to Mill, but they mainly echoed the debates of the few decades preceding 1873, and one can easily find in Ludlow and Jones's report, the empirical counterpart of Marshall's more theoretical and general reasoning (e.g. Ludlow and Jones, 1869, pp. 85-104). Besides, in his conference paper, Marshall explicitly mentions in his support an otherwise undetermined "series of reports by well-informed, unprejudiced men" (Marshall, 1925, p. 116) and one can reasonably presume that Ludlow and Jones's were included in that[14].

A wise, frugal and unostentatious way in which the workers were to spend their increased leisure time and wages had been at the heart of Mill's description of a happy stationary state, as we have seen and this can also be found in Marshall's piece. Marshall followed a curious rhetoric strategy, which is worth noticing. In the first part he depicts the dark scene of the working classes "*in the narrower sense of the term*" (Marshall, 1925, p. 109), that is, labour without any skill, and argues that they "have misspent their increased wages, (...) have shown little concern for anything higher than the pleasures of eating and drinking. (...) Men like these do value high wages mainly as affording them an opportunity of using their bodies as furnaces for the conversion of alcohol into fumes" (Marshall, 1925, p. 102 and 107). This situation is contrasted to that of an intermediate class, exemplified by the highly skilled, highly paid artisans, whose "lot just does offer them the opportunity of being gentlemen in spirit and truth; steadily learning to value time and leisure for themselves, learning to care more for this than for mere increase of wages and material comforts"

[14] A conclusive proof should of course require some archive research. It will suffice to note here that Marshall's reference to the "series of reports" is immediately preceded by some considerations on the improving habits of the collieries, as documented by Parliamentary acts, whose excerpts had been abundantly reported by Ludlow and Jones (1867), pp. 116-118.

(Marshall, 1925, p. 105). In the final part, however, he reconsidered the present state of society, arguing a general marked moral progress:

> Even if we take the ruder labourers, we find something to set off against the accounts of their habits of indulging in drink and rough pastimes. Such habits were but a short time ago common among country squires. But country squires had in them the seeds of better things, and when a new age opened to them broader and higher interests, they threw off the old and narrow ones (Marshall, 1925, p. 116).

What was happening was that the *skills* were rapidly spreading and increasing, and the working classes in the narrower sense tended to disappear. In Marshall's fancied country, in fact, "all labour would be skilled" (Marshall, 1925, p. 112). Needless to say, a fundamental ingredient was education, to which the last pages of Marshall's paper are devoted[15]. School education for character, self-respect and social duties had been considered the keystone to any permanent improvement in the life of workpeople since Malthus's *Essay*, and this has been emphasised by both Mill and Marshall. The latter, however, placed a special emphasis on education for *industrial skills*: "Knowledge is power and man [in the fancied country] would have knowledge. Inventions would increase and they would be readily applied. (...) There would be no premium on setting men to tasks that required no skill" (Marshall, 1925, p. 112). In other words, innovations, education and market mechanisms provided the appropriate incentives for driving the economy towards a new model of industrial society. Marshall's prediction of the end of unskilled labour can be paralleled to Mill's more "political" prediction of the end of *hired* labour. To be sure, as we have seen, Marshall partially agreed on a *reduction* of hired labour, but this is of no special relevance to his argument. These two different predictions may be taken to reflect different ideals of society. The former had an ideal of social dignity which required the absence of social dependence, but fully allows for hard manual work; in contrast, the latter had an ideal of an industrial society in which the

[15] It should be kept in mind that a new system of children and adult education had been shaped in Great Britain a few years previously, in the 1870 Education Act.

occupation of people was conducive to intelligence and refinement, irrespective of whether they were working for themselves or for a master.

A final aspect concerns population growth. It is true that Marshall did not postulate a prospective stationary state of population, and he was content to say that in his fancied country the population "would (...) be retained within due limits" (Marshall, 1925, p. 114). But the logical scheme he adopted followed closely in the footsteps of Malthus and Mill. The continuing rapid increase in population was a "great hindrance" to a permanent progress of the working classes, because "competition for food dogs the heels of progress, and perpetually hinders it" (Marshall, 1925, p. 116-117). Once again, the remedy was, broadly speaking, education. A high standard of education, once attained by the working classes, "would be unfailingly maintained" and transferred to the following generation, because:

> An educated man would not only have a high conception of his duties to his children; he would be deeply sensitive to the social degradation which he and they would incur if he failed in it (Marshall, 1925, p. 144).

There was, so to speak, both the capacity and the incentive for a reduced fertility, and rational beings would behave consequently. What was a hypothetical and remote possibility for Malthus and a reasoned probability for Mill, became an even more proximate and practicable prediction for the young Marshall.

7. Marshall from the 1873 paper to the *Principles*, and beyond

In the *Principles*, Marshall's opinions are expressed in a more balanced way. The precise distinction between skilled and unskilled labour is acknowledged to depend on historical circumstances, and he does not venture to say that unskilled labour, in some sense, will ever disappear. Nonetheless, the importance of a material inter-generational movement from unskilled to skilled labour is still very much emphasised:

> The children of unskilled workers need to be made capable of earning the wages of skilled work: and the children of skilled workers need by similar means be made capable of doing still more responsible work (Marshall, 1920, p. 206, and p. 718, respectively).

In the conference paper, Marshall characterised his "fancied country" by short hours of manual work: he thought that "in our new society (…) a man would not in general perform manual work for more than six hours a day. (…) In heavy work three sets of men might each work a shift of four hours" (Marshall, 1925, p. 113). Since, according to S. and B. Webb, "the nine hours movement (…)[was not] fully successful until 1871" (S. & B. Webb, 1965 [1897], p. 352, n. 1), Marshall's prescription would have implied, more or less, *halving* the daily hours of unskilled labour. Like education, and partially *by* education, shorter hours were an independent source of productivity increase, so that the reduction of working hours (at constant wages) need not reduce output. Once again, the bold opinions expressed in the conference paper are much moderated in the *Principles*: a "*moderate* diminution of the hours of labour" (Marshall, 1920, p. 694; emphasis added) is still advocated as a means of improving efficiency, but the possibility of "halving" them is no longer mentioned, nor are shifts of six or four hours Marshall now advocates, which would generally exert a positive effect on the efficiency of workers. The argument is now much more balanced. The effect on efficiency is mainly referred to the case of expensive, complex machinery which called for shifts[16]. By contrast, in more mature sectors, like mining, there was not much gain in efficiency from a reduction in working hours, and in this case shorter hours (at the same wage) would imply some losses (cf. Marshall, 1920, p. 696) in terms of output and profits[17]. The relationship between working hours and efficiency is presented in the *Principles*, not

[16] "Anglo-Saxon artisans, unsurpassed in accuracy of touch, and surpassing all in sustained energy, would more than any others increase their net produce if they would keep their machinery going at its full speed for sixteen hours a day, even though they themselves worked only eight" (694).

[17] Marshall also stressed that a reduction of working hours was "specially suitable to industries in which piece-work prevails" (p. 693).

surprisingly, as complex and multifaceted, and a quantitative evaluation is considered very difficult (cf. p. 701). On the whole, however, his judgement about the positive qualitative effect of short hours on efficiency and wages (per unit of time) remained the same.

The main difference from the 1873 line of reasoning, however, concerned population. After a few years, Marshall changed his mind on population growth being a "great hindrance" to progress. Marshall was now careful to stress his differences to Mill. Only when "the wheat-fields of the world are worked at their full power" does it follow that "a rise in the standard of comfort may rise wages merely by stinting the growth of numbers" (Marshall, 1920, p. 692; emphasis added). This was not the case, however. In fact, "while the present good fortune of abundant imported food attends on the English people, a rise in their standard of comfort could not increase their wages, merely by its action on their numbers" (Marshall, 1920, p. 692; see also p. 691 and p. 697). The post-1846 free trade, so enthusiastically praised by Toynbee, together with emigration to, and the economic progress of America and Australia, radically changed the situation which shaped the opinions of Mill and the young Marshall. The latter's American tour in the summer of 1875 may have contributed to this change in judgement. The "vast agricultural lands of North and South America and Australia" now provided the English workman with wheat "in sufficient quantities for his family at a total cost equal to but a small part of his wages" (Marshall, 1920, p. 691). This new factual evaluation has been reinforced by an explicit rejection of the theory according to which wages can be raised by merely making labour scarce: the old 'work-fund' theory had "no foundation" (Marshall, 1920, p. 697).

The main premises of Mill's argument, therefore, fell without remedy. This does not mean, however, that Marshall completely abandoned Mill's course of inquiry. In spite of the different factual premises, he built, in the *Principles,* an argument which was very similar to Mill's from a *logical* point of view. A better, fuller, nobler life was still held to be at the same time the cause and the effect of economic progress. A double-sided relationship between the

manner of living and wages, able to generate a Millian self-reinforcing mechanism, is the cornerstone of the concluding chapter of the *Principles*, which is built precisely around the question of "how far is either to be regarded as the cause of the other, and how far as the effect" (Marshall, 1920, p. 689).

The Millian positive relationship between life standards and a restraint in population growth is very explicitly replaced by a positive relation between life standards and *technological efficiency*. On the one hand, an increasing standard of life improves the intelligence, energy, self-respect and force of character on which efficiency is based, and thereby determines increasing wages; on the other hand, any improvement in industrial organisation determines a wage rise and/or more leisure which, *if expended with care and judgement*, improves the standard of life itself.

> A rise in the standard of life for the whole population will much increase the national dividend, and the share of it which accrues to each grade and each trade. A rise in the standard of life for any one trade or grade will rise their efficiency and therefore their own real wages: it will increase the national dividend a little (Marshall, 1920, p. 689).

Accordingly, of course, Marshall replaced the old theory of wages based on population with a theory based on the "net product" of labour.

In order to properly understand Marshall's cumulative causation and the precise mechanisms through which it generates social progress, one has to distinguish sharply between his new conceptions of the "standard of life" and that of "comfort". The former consists of a series of *activities* conducive to positive *moral* attitudes, and the latter consists of the satisfaction of material *wants*, above the mere decencies and necessaries of life. He thought this distinction was necessary, because the term "comfort", which had been used by Mill, "may suggest a mere increase of artificial wants, among which perhaps the grosser wants may predominate" (Marshall, 1920, p. 690). Now, it is true that "a rise in the standard of comfort will probably involve some rise in the standard of life", but "the only direct effect

of an increase of wants is to make people more miserable than before" (Marshall, 1920, p. 690). Only insofar as the increased wages and/or leisure "open the way to new and higher activities" is efficiency increased, thus determining a net social gain, an enduring basis for the higher wages and the possibility of a further rise. This antinomy between activities and wants (and between the standard of life and the standard of comfort) is at the heart of Marshall's conception of social progress, as shown in the seminal study of Parsons (1931). Marshall's "new and higher activities" are at the same time ethical and rational, while his "wants appear to be wholly arbitrary, mere whims with no permanent foundation in life" (Parsons, 1931, p. 107). Parsons synthesised this contrast in terms of two sets of virtues and their opposite:

> On the one hand energy, initiative, enterprise; on the other rationality, frugality, industry, honourable dealing. With them are contrasted, on the one side, sluggishness, idle stagnation, slavery to custom, lack of ambition; on the other, luxury, ostentation, waste, unreliability (Parsons, 1931, p. 107).

Marshall's reasoned optimism concerning the future of the working classes derived from his conviction that these two sets of virtues were slowly but steadily spreading among the working classes: the various activities referred to in Section 2, concerning leisure, work, associations, education, and ways to expend wages, are eloquent concrete descriptions of the evidence at Marshall's time.

8. Marshall's contrast between life standards and comfort standards: a formalisation

The increase in leisure and in wages was no progress *per se*: all depended on the *use* that the working classes were able to get out of them. A wise use consisted in more education, rational enjoyment, provident habits, and "care and judgement in expenditure" (Marshall, 1920, p. 689); an unwise use consisted in grosser ways of spending time, like the public house

or sporting activities[18], indulgence in food and drink (e.g. Marshall, 1920, p. 689), the "evil dominion of the wanton vagaries of fashion" (Marshall, 1920, p. 88, n. 1).

The contrast between these different manners of living distinctly parallels Mill's contrast between attitudes towards comfortable living and fertility. More precisely, as in the case of Mill, Marshall's different ways of spending time and income are naturally *alternative*, in the sense that the more that is expended in one way, the less that is expended in the other. And the progress of the working classes (and of society at large) crucially depended on what "way" was chosen.

Even though Marshall did not appear to have explicitly bounded such a trade-off to a budget constraint, his logical argument did involve it, and it may be of some interest, if only for comparative purposes, to provide, in this Section, a possible formalization.

Let us denote by S an index of all the activities which form Marshall's "standard of life", and by W an index of Marshall's "artificial wants", which form the "bad" side of his "standard of comfort". Taking into account that the daily work, rest and leisure must make a total of 24 hours, and that expenditure is constrained by wages, there naturally exists, at a given wage rate w, an inverse relationship between S and W. At a given time (time suffixes are omitted when all variables refer to the same time), let this relation be defined by the simple linear equation

$$w - (aW + bS) = 0 \quad [4]$$

At a given wage rate, Equation 4 defines a straight line in (W, S) space, as drawn in Figure 2. The higher the wage, the higher the indexes of both activities that can, in principle, be reached. But for Marshall, as we have seen, the wage rate and the standard of life are not independent: in our formulation, the choice made in (W, S) space at a given time, on the basis of given wages, affects *future* wages. Specifically, let

[18] Marshall expressed at various points his dislike for the vulgarities of 'sporting men'. Cf. Parsons, 1931, p. 113, n. 5.

$$w_{t+1} = f(S_t), \text{ with } f'(S) > 0 \quad [5]$$

where *f* represents Marshall's positive effect of living standards on labour efficiency *and* his assumed equality between the "net product" and competitive wages. Marshall's argument was that any increase in *S* would soon determine, by competition for more productive workers, a wage rise; conversely, a wage rise obtained artificially by "particular devices" (Marshall, 1920, p. 704) would soon return them to their previous level. Furthermore, an independent *drop* in living standards (such as the diffusion of sluggish habits, slap work, passive adaptation to fashion, etc.) would not fail, according to Marshall, to affect future wages negatively.

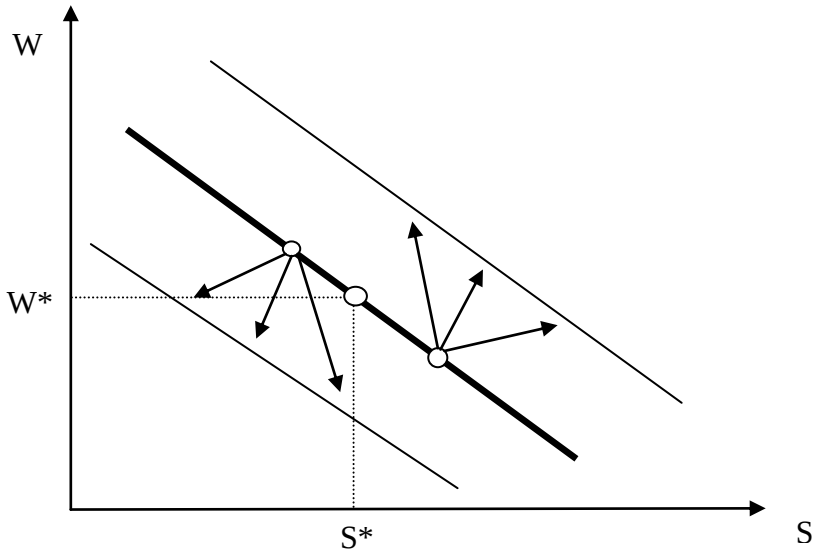

Figure 2

At any given wage rate, *w*, there will be a critical standard *S** such that $w_{t+1} = w_t$. This critical standard is clearly

$$S^*(w) = f^{-1}(w) \quad [6]$$

If, in given economic circumstances, social habits conform to *S**, we have a stationary state of wages and living standards. The key to progress is therefore an *increase* of living standards *above S** which is obtained *at the expense* of the grosser and artificial wants: this was, in fact, for Marshall, the true basis of a lasting progress of the working classes.

In terms of Figure 2, the bold line is stationary if habits conform to (W*, S*); it shifts upwards as time goes on if, at time t, $S > S^*(w)$, and it shifts downwards if $S < S^*(w)$.

There is a clear logical analogy between Figures 1 and 2, and between Mill's and Marshall's visions of progress. Both of them relied on a cumulative, self-reinforcing process, which required, broadly speaking, the learning of workpeople to *live* in a certain way. This "way" involved the same intellectual and moral values: in this respect, Marshall's "standard of life" corresponds to Mill's "standard of comfortable living". They differed, however, in the evaluation of the fertility issue. This was the key element for Mill, but played no role in the mature Marshall; in its place, Marshall stressed other "bad" ways in which an increasing comfort can be enjoyed.

9. Concluding remarks

The young Marshall had very good reasons for claiming that his 1873 conference paper was in no way dissimilar to, or in contradiction with, Mill's course of inquiry. In Marshall's "fancied country", in fact, the working classes are assumed to live with the same kind of mental and moral cultivation that Mill predicted some twenty years before. Both of them contrasted a conservative opinion according to which there was no practical possibility for this to be so: this opinion derived from a mistaken interpretation of Malthus, and it argued catastrophic economic consequences from the acceptance of the "claims of labour". Their contributions can also be interpreted as vindications of appropriate market mechanisms from Carlyle's accusations, and are based on self-reinforcing virtuous mechanisms. Marshall used, however, some new arguments, and, again, he was right to say that his 1873 piece was not a mere tribute to Mill. We have argued that Marshall's specific course of inquiry can be best understood in the light of the evidence put forward by Ludlow and Jones in their 1869 report. For point after point, Marshall presented the sketch of a theoretical counterpart to Ludlow and Jones's work. A special emphasis is placed on the spread of skills, but there is no sign of an

underplay of Mill's argument on population. The *Principles* introduced some novelties: the population argument is completely dropped and the "skills" argument is refined in much more detail. The future of the working classes is now dependent on a positive relationship between what he called the "standard of life" and labour efficiency. By means of two simple formalizations, we have argued that he adopted in the *Principles* the same logical scheme that Mill had used, in which a better manner of living was the cause, no less than the effect, of progress for the working classes.

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