DRAFT (please do not quote)

Knowledge and Progress in Thomas Hodgskin

Long considered a "Ricardian Socialist," Thomas Hodgskin (1787-1863) offers us the case of a shrewd reader of the dynamics of the Industrial Revolution, better and more far-sighted than most of his contemporaries. Hodgskin was, mainly, a journalist, whose writings appeared scattered, and unsigned, on some of the liberal newspapers of his time: from the *Morning Chronicle* to *The Economist* to *The London Telegraph*, which he himself edited, for the six months of its existence, in 1848. But he left us a few major works: *An Essay in Naval Discipline* (1813), *Travels in the North of Germany* (1820), *Labour Defended Against the Claims of Capital* (1825), *Popular Political Economy* (1827), *The Natural and Artificial Right of Property Contrasted* (1832) and lectures on free trade, peace, and criminal justice. Of these, *Labour Defended* was deemed the most relevant, because of the influence it apparently exercised on Karl Marx's thought. The Webbs styled Marx as "the illustrious disciple" of Hodgskin (Webb 1920: 162), perhaps to establish a British genealogy for the main trends in socialism.[1]

And yet, reading Hodgskin one absorbs a very different vision of the Industrial Revolution than the one that became mainstream, by and large thanks to Friedrich Engels's *The Condition of the Working Class in England* (1845). More than a socialist, Hodgskin reads now as a proto-libertarian: his writings show a constant antipathy for basically any kind of government intervention, and a granitic belief that society would be best if left to itself. His view of a beneficent, spontaneous order of the market economy was also based on his vision of progress, as an increase in "people, wealth, and knowledge".

Engels proclaimed that "The history of the proletariat in England begins with the second half of the last century, with the invention of the steam-engine and of machinery for working cotton" (Engels 1845: 1). It were machineries that "invented" the proletariat.

On the contrary, Hodgskin thought that machines were signalling a fact of more general relevance: people's knowledge is constantly growing with time. This progress in knowledge made ever better instruments possible, and this in turn allowed for increasing productivity, which made for greater prosperity. Even in *Labour Defended*, Hodgskin thought workers should get a better deal – but never gave the impression to think they were impoverished or exploited by industrial capitalism. Hodgskin's lucidity in seeing the Industrial Revolution as a great improvement for all fuelled his optimism over population and human liberty.

1. Thomas Hodgskin, a Ricardian Socialist?

[1] Beatrice Webb was herself the protégé of Herbert Spencer, who took an interest in the children of his friend Laurencina Potter and particularly in young Beatrice. For a little while, Spencer shared a room with Hodgskin at *The Economist*. Spencer, who always claimed originality, denied Hodgskin's views exercised any influence on his thinking ("The intercourse we had daily at the *Economist* office consisted of remarks about passing incidents, especially such as bore upon misgovernment and overgovernment, in which remarks we habitually found ourselves in agreement. That he exercised any influence over my opinions I deny." Spencer to Mary Hodgskin, March 22nd 1903). It may be speculated that Beatrice was aware of Hodgskin's relationship with Spencer.

Thomas Hodgskin was born in Chatham in 1787. At the age of 12 Thomas was forced by his father, a storekeeper in the Chatham Naval Dockyards, to enlist in the Royal Navy. He spent the following dozen years at sea, self-educating through the books he managed to acquire.[2] Despite the fact that "for most of his service Hodgskin enjoyed an exemplary career" (Stack 1998: 36), he was court-martialled with the accusation of having let a prisoner under his charge to flee and of having written a disrespectful letter to his commanding officer over the affair. As a consequence Hodgskin was demoted, thus ending all promotions prospects, and making "a discontented and disappointed man" of him. Forced to return to civilian life and only supported by a modest pension, Hodgskin faced a world he had no real experience of.

Without education nor employment, in 1813 he published a short polemic based upon his experiences in the Navy, whose purpose is well summarised by its title: *An Essay on Naval Discipline, Shewing Part of its evil Effects on the Minds of the Officers, on the Minds of the Men, and on the Community; with an Amended System, by which Pressing may be immediately abolished* (Hodgskin 1813). This short essay was at the same time a condemnation of the brutality of naval discipline, and an appeal to civil authorities for its reform. Hodgskin considered paradoxical that the Royal Navy, that was meant to preserve English liberties, resorted so heavily on impressment. His view of naval discipline was of "one universal system of terror; no obedience, but what was forced; no respect, but what was constrained" (Hodgskin 1813: ix).

The *Essay on Naval Discipline* marked the literary debut of Hodgskin and was noticed by Francis Place, who was among the central figures of the London political and intellectual scene. In the *Essay on Naval Discipline*, Hodgskin sketched an anarchistic vision, showing a deep distrust for any form of coercion.

Pressing people into the Navy, Hodgskin reflected, was morally indefensible particularly because, in the Napoleonic Wars, Britain was fighting for the cause of liberty. "Never had a nation, since the defence of Greece against the Persians, such a cause as ours; and since it has had its proper effect upon the minds of a free people, never was so fit an occasion for our governors to repose in us unlimited confidence" (Hodgskin 1813: 213). Free men followed moral principles derived from "the fear of God" and "the love of their neighbour," not from civil authority. Hodgskin thought that "pressing, compelling men to do their duty by terror, and permitting captains to employ that at their pleasure, are as destructive of real discipline, as they are of morality" (Hodgskin 1813: 112). Active service taught Hodgskin that "the consequence of liberty is courage" while the consequence of slavery is "fear" (Hodgskin 1813: 109). His political theory was built upon this intuition.

Francis Place, one the major organisers of the radical movement, helped Hodgskin in entering the literary world. Through him Hodgskin managed to get in touch with Jeremy Bentham and James Mill.

Thanks to Place Hodgskin also embarked on a long journey across Europe. In Paris he attended the lectures of Jean-Baptiste Say. Details of Hodgskin's permanence in France are still obscure, but it is clear that Say exercised a profound influence on him. He later moved to Germany and this yielded the publication in 1820 of a two-volume *Travels in the North of Germany* (Hodgskin 1820). The modest sales success of this work, and other unprofitable attempts at making a living as a writer, left Hodgskin in an awkward economic predicament, that only turned out for the better in 1822, when the influence of Place's and Mill's obtained him a job as parliamentary reporter for the *Morning Chronicle* edited by John Black. After that, Hodgskin contributed to the establishment of *Mechanics Magazine* and edited its sister publication *The Chemist*. These magazines were filled with articles

[2] Hodgskin invested considerable energy in educating himself, for his work are rich with quotations from a variety of sources, from Hume to Pope, from Locke to Bentham.

explaining and preaching technological improvements, which could be replicated by artisans and tinkerers.

According to E.P. Thompson, the "London Unionist … turned to Thomas Hodgskin, for their theory" (Thompson 1963: 778-779). Later Hodgskin wrote for assorted radical publications and eventually joined *The Economist*. He landed a job in the periodical established by James Wilson in 1844, initially as a reviewer of books and pamphlets on economic and social issues, but later becoming one of its leading writers.[3] In 1848, he was briefly to edit *The London Telegraph*. Hodgskin was also one of the first collaborators of Hansard's *Parliamentary Reports* (Halevy 1903: 130).

Hodgskin regarded Francis Place with "an almost child-like admiration" (Stack 1998: 57), but was never an Utilitarian. His *The Natural and Artificial Right of Property Contrasted* is structured as a series of letters to Lord Brougham, the Parliamentary right-arm of the Benthamites. As Dicey observed, "the movement of which he [Bentham], if not the creator, was certainly the prophet, was above all things a movement for the reform of the law" (Dicey 1917: 46). Hodgskin opposed reforms in the sense of new legislative initiatives, considering all legislation to be rotten. His experience in parliamentary chronicles may be seen as the backdrop of this lifelong belief.

Place and Hodgskin clashed over the establishment and the governance of the London's Mechanics Institute. These institutions were established thanks to a movement which resulted from "the confluence of a rising wave of concern for educational reform (in infants schools, Sunday schools and secondary as well as university education) and an increasing demand for the availability of technical education for artisans and mechanics or machine-operators who required training for new and rapidly expanding forms of technology" (Claeys 2000: 158). Their aim was the improvement of the conditions of artisans through better education. As mentioned, Hodgskin was part of the editorial team of the *Mechanics Magazine* and editor of *The Chemist*: both editorial ventures had the ambition to transfer useful knowledge to their readers.

Together with the editor-in-chief of the *Mechanics Magazine*, Joseph C. Robertson, Hodgskin thought the school needed to be financed by funds provided by workers themselves through subscriptions. Francis Place persuaded them that such a plan was unviable. A large donation from George Birkbeck made the establishment of the London Mechanics Institute possible, fulfilling Place's scheme of big benefactors stepping in to sustain the institution. Subsequently, most likely because of Place's maneuvers, neither Robertson nor Hodgskin were elected to the Board. Though his friendship with Place was damaged, Hodgskin did not sever his ties with the Institute, somehow made it up with Birkbeck and, in spite of Place's opposition, succeeded in eventually giving a course on political economy in 1826, substituting for William Ellis, a Benthamite economist. Those lectures were published as *Popular Political Economy*.

Hodgskin was long considered one of the most prominent "Ricardian Socialists." But Hodgskin was not a "Ricardian". In a May 28 1820 letter to Francis Plate, he reacted to Ricardo's *Principles* upon reading them – and this reaction was informed by a hostility that never abandoned him (Halevy 1903: 66-79). Hodgskin has later and more carefully been labeled a "Smithian anarchist" (Hutchinson 1978: 242n). Max Beer, the historian of British socialism, succinctly pointed out that "Hodgskin was no socialist. He preferred competition in the midsts of institutions and opinions as free as man can form them" (Beer 1919: 206). And yet, Hodgskin seemingly cannot give back the membership card

[3] Ruth Dudley Edwards suggests that although "there is no evidence about how the relationship between Hodgskin and Wilson was conducted […] it is clear from the pages of *The Economist* that it worked well. Hodgskin added intellectual tone, and though facts, more facts and yet more facts continued to form the backbone of the paper, it became quirkier, less stolid, more cultivated and less prosaic" (Edwards 1993: 127).

for the Ricardian socialists' club: in part because the label seems to have become customary for "a diverse group" of writers that "emerged as the popularisers of the doctrine of classical political economy" providing "the intellectual artillery in an increasingly radicalised political struggle" between capital and labour (Milgate and Stimson 2009: 219).

Hodgskin's *Labour Defended Against the Claims of Capital* (1825) is certainly his best-known work. As it was quoted extensively – and by and large positively – by Marx, both in *Capital* and in the manuscript published as *Theories of surplus-value*, it gained Hodgskin the reputation of a forerunner of socialism. The author of the book called himself "A Labourer," thereby presenting himself not just as a champion of the working classes, but as part of them. This was possible because Hodgskin put intellectual labour on a par with physical labour – for which he was criticised by William Thompson as a hypocrite (Thompson 1827: 2-6).

In *Labour Defended*, Hodgskin argued that labour had a legitimate claim to a larger share of its product. The pamphlet was written mainly as a polemics against the Combination Laws, which in fact prohibited freedom of association among workers. Combination Laws were abolished in 1824 but, after a wave of strikes, reinstated in a different form through the Combination Act of 1825. Contrary to the outright ban of combinations of 1799, this Act allowed for some freedom of association among workers, but made combinations with the sole purpose to press for wage increases or change working hours illegal. The Parliament was in fact denying the right of the workers to negotiate wages by themselves (Perkin 1969: 188).

Hodgskin's pamphlet was thus conceived as intellectual ammunitions in a particular policy battle: nonetheless, he brought the fight at a more theoretical level, claiming labour should be entitled to all the social produce. He denied any role for capital, viewing fixed capital basically as "crystallised labour." For Hodgskin, capital was "a sort of cabalistic word, like Church or State, or any other of those general terms which are invented by those who fleece the rest of mankind to conceal the hand that shears them" (Hodgskin 1825: 60).[4] By and large, Hodgskin wanted to be seen as demystifying vague and empirically unsound notions such as "capital." He acknowledged that fixed capital was useful and contributed to increase productivity, but considered that "Whoever may be the owner of fixed capital … it is the hand and knowledge of the labourer which make it, preserve it from decay, and which use it to any beneficial end" (Hodgskin 1825: 63).

Rothbard calls Hodgskin's approach "ultralabourism" but points out that, though it had "influenced Karl Marx," "Smith's natural law and harmony-of-interest free market doctrine was also far more congenial to Hodgskin" (Rothbard 1995: 401). If we look at his view of capitalists, Hodgskin apparently fits well within the boundaries of the "exploitation theories of capital" as defined by Bohm-Bawerk (Bohm-Bawerk 1884). Hodgskin considered capital exploitative all his life through. In *Popular Political Economy*, he even spoke of "greedy capitalists" (Hodgskin 1827: 171), anticipating an expression which now has much currency.

But in a profound way, Hodgskin differed from other theorists of capital as exploitation. First, he had no principle to substitute to the market determination of salaries. He argued that

> If all kinds of labour were perfectly free, if no unfounded prejudice invested some parts, and perhaps the least useful, of the social task with great honour, while other parts are

[4] The idea was actually fist advanced in his *Travels in the North of Germany*, Hodgskin's most fascinating and perhaps less studied work. There Hodgskin wrote that "the landlord and the capitalist produce nothing. Capital is the produce of labour, and profit is nothing but a portion of that produce" (Hodgskin 1820: II, 98).

> very improperly branded with disgrace … the wages of individual labour would be justly settled by what Dr. Smith calls the "higgling of market" (Hodgskin 1825: 85-86).

Furthermore, Hodgskin hold a broader definition of "labour" than most. As previously noted, he signed his writings as "A Labourer" because he openly equated manual and intellectual labour. He was also considering "labour" not only intellectual efforts – but also management skill and commercial intermediation. Basically, "he exhibits no modern sense of class but distinguishes society's productive labour, which includes both workers and manufacturers, from unproductive stock-jobbers, middlemen and courtiers" (Jaffe 2000: 49).

He maintained that

> The knowledge and skill of the master manufacturer, or of the man who plans and arranges a productive operation, who must know the state of the markets and the qualities of different materials, and who has some tact in buying and selling, are just as necessary for the complete success of any complicated operation as the skill of the workmen whose hands actually alter the shape and fashion of these materials (Hodgskin 1825: 88).

Masters, he thought, "are labourers as well as their journeymen" (Hodgskin 1825: 90). He somehow tried to distinguished between the profit of the entrepreneur, which he deemed necessary and just, and the rent of the capitalists, which he hoped to tear off.[5] Hodgskin's vision of capital is somewhat confused: he refers to the demands of capital as the "demands of compound interest" (Hodgskin 1825: 80) and seems to be convinced that capitalism is something like the "dictatorship of the past," a mutation of aristocracy ("Labourers are still more unfortunate in being descended from bondsmen and serfs"), which can expropriate labour only because of political support.[6]

In Hodgskin's story, all the labourers (the master manufacturer, the projector, the merchant as well as the workman) are learning from their circumstances and trying to increase their knowledge and alertness of opportunities.

Hodgskin sang the praises of the division of labour. He appears very far from flirting with the demise of the capitalist order. In a way, what he demands is that workers getting a bigger share of the social produce. He sees that that should happen because it is the skills and creativity of labourers that make things valuable. One of his main accusation against capitalists is that "Thousands of capitalists have been enriched by inventions and discoveries of which they were not the author" (Hodgskin 1825: 64). He also thought that labourers should actively work to increase their knowledge – as he hoped to help them in doing, with the establishment of the Mechanics Institute and with his journalism.

Even if one reads only *Labour Defended*, it is hard to consider Hodgskin "a socialist." It is precisely the emphasis he places on labourers' skills, that brought him to a favourable consideration of mechanisation, which lays at the root of his appreciation of the Industrial Revolution as breeding enrichment on a larger scale.

2. *Popular Political Economy* and Knowledge

The economic thinking of Hodgskin was more coherently expressed in his subsequent work, *Popular Political Economy*, which was the result of the lectures he gave at the London Mechanics Institute in 1826. The qualification "popular" does not imply that the brief treatise is aimed to the general public:

[5] The attempt "to distinguish the portion of revenue, which the entrepreneur receives as entrepreneur" (Say 1803: 176) may be something Hodgskin took out of Say, though without Say's clarity.

[6] Hunt remarked that "the ideal society was, for Hodgskin, one in which income from idle ownership would be impossible" (Hunt 1977: 338)

as Halevy observes, it was "political economy not vulgarised and written down to the level of a popular audience, but conceived from the standard of the interest of the people" (Halevy 1903: 91). The four lectures originally given by Hodgskin were turned into a ten-chapter book.

That the issue of knowledge was to be central, is clear from the fact that the first of Hodgskin's lectures was entitled "The Influence of Knowledge." As an epigraph, Hodgskin took a quotation from J.B. Say. The quotation reads "The laws which determine the prosperity of nations are not the work of man; they are derived from the nature of things. We do not establish; we discover them."[7] For Hodgskin "society has a course of its own," and the "ultimate objects at which a wise legislator ought to aim" should be to recognise such a course and learn "what are the principles of legislation necessary for maintaining it," before enacting new rules (Hodgskin 1832: 4). Thus, the very nature of political economy inclined towards *laissez-faire*, in the sense of being more interested in discovering the natural laws that govern society than in prescribing action on the part of government. He maintained that political economy was "not, as is generally supposed, a meddling, factious, ambitious science,—not a political science, prescribing regulations for society, or dictating duties to men" (Hodgskin 1827: 38-39). The economy was to be studied and understood, not intervened upon.

The influence of Say over Hodgskin appears to be considerable. "Say (…) argued that the science of political economy was not a branch of the science of the legislator" (Forget 1999: 112). In the preamble to the *Treatise*, he wrote

> In the science of political economy, agriculture, commerce and manufactures are considered only in relation to the increase or diminution of wealth, and not in reference to their processes of execution. This science indicates the cases in which commerce is truly productive, where whatever is gained by one is lost by another, and where it is profitable to all; it also teaches us to appreciate its several processes, but simply in their results, at which it stops. Besides this knowledge, the merchant must also understand the processes of his art. He must be acquainted with the commodities in which he deals, their qualities and defects, the countries from which they are derived, their markets, the means of their transportation, the values to be given for them in exchange, and the method of keeping accounts (Say 1803: 10).

Hodgskin similarly maintained that

> political economy can never inform us how the hand may be made skilful. The science observes the close connexion between individual gain and the general welfare; but it does not pretend to direct the operations of the merchant, the trader, or the farmer, any more than those of the engineer; nor the labour of the ship-owner, any more than those of the shipwright and smith (Hodgskin 1827: 39).

As Gregory Claeys puts it, "*Popular Political Economy*, in fact, was principally a paean to the existence of immutable natural laws regulating and determining the production of wealth, which for Hodgskin had only to be recognised in order to be applied correctly" (Claeys 2000: 164). Cecil Driver suggests that Hodgskin's economics was basically "a particular application to special circumstances of his own philosophy of law" (Driver 1932: 198). And certainly, if we need to find unity in Hodgskin's thought, we find it indeed in his view on the nature of political obligation, that first surfaced in his *Essay on Naval Discipline*.

[7] Hodgskin also used the same quotation in an article for the *Trades' Newspaper*, in which he defended political economy from a previous editorial in the same paper, which accused political economy to be a cover-up for the status quo (Hodgskin 1826).

But, at the same time, this very definition of the boundaries of the economic science emphasised the specificity of the knowledge required for achieving particular economic tasks. If the economist "owns" a theoretical understanding of the workings of supply and demand and the price mechanism, any and each individual production needs *specific* knowledge. Hodgskin uses the word "knowledge" for both formal knowledge and know-how, explicit and tacit knowledge.

It needs to be pointed out that Hodgskin's natural laws entailed the idea of a direction of progress. They set "the natural progress of civilisation" (Hodgskin 1827: xiv) which is attained inasmuch as people are allowed to be subject to natural rather than to man-made laws. The first are benevolent, the latter are a cover-up for privileges manufactured to the benefit of special interests. Hodgskin's view is strikingly similar to that later expressed by Herbert Spencer in *Social Statics*:

> Progress, therefore, is not an accident, but a necessity. Instead of civilisation being artificial, it is a part of nature; all of a piece with the development of the embryo or the unfolding of a flower. (Spencer 1851: 65)

For Spencer, evil consists chiefly as a maladaptation of an organism to nature. Hodgskin likewise considered that the lack of compliance with natural law, as embodied in legislative meddling, was conducive to artificially and unnecessarily retarding the development of civilisation. There are "natural principles to which society owes its rise, progress, and continued existence" (Hodgskin 1832: 10).

Hodgskin sees a pattern: a tendency towards an increase "in people, in wealth and in knowledge" (Hodgskin 1832: 11).

He considers the creation of knowledge as a collective enterprise, a cumulative effort that constantly builds on previous experience, is predicated upon the idea that labor is knowledge-driven. Even manual labour cannot be performed absent the acquisition and application of knowledge in any form.

> The meanest labourer must use some mental exertion, and much of the most common labour is now rendered easy of acquisition by the transmitted habits, knowledge and skill of former generation (Hodgskin 1827: 48).

The different kinds of knowledge are placed in a continuum of sorts: Hodgskin stresses that each and any tool and occupation is de facto "indebted" to the observations, discoveries, and inventions made in the past. Each task is thus embedded into a stream of knowledge.

> Though agriculture does not supply us with the most striking examples of observation adding to productive power, yet even in this neglected and generally speaking, slave-practised art, we may find numerous examples of the hand of the labourer having been rendered productive by the observations of the philosopher (Hodgskin 1827: 55).[8]

In a way, Hodgskin seems to be reminiscent of the famous observation by Smith that "the invention of all those machines by which labour is so much facilitated and abridged, seems to have been originally owing to the division of labour" (Smith 1776: 20). Focusing on specific tasks, exclusively assigned to them, can drive labourers that "naturally turned their thoughts towards finding out easier and readier methods of performing it."

[8] At the same time, however, "without practical manual skill, the most elaborate learning may be of no use" e "without dexterous workmen, the most ingenious contrivances must be classed merely as visionary dreams" (Hodgskin 1827: 91).

And yet Hodgskin is dissatisfied with Smith, for he found in him a certain lack of interest for the issue of knowledge, which looks so pervasive to him:

> In *The Wealth of Nations* there are numberless scattered remarks, which show that Dr. Smith was aware of the influence of knowledge in adding to productive power; yet he has not dedicated any part of his book expressly to this subject. He has made no attempt whatever to explain the natural laws which regulate the increase of knowledge (Hodgskin 1827: 53).

These natural laws point towards a continuous *accumulation of knowledge*, generation to generation. Hodgskin concedes that

> Dr. Smith was not ignorant … of the effects of knowledge and observation in adding to productive power … But he seems not to have been thoroughly sensible of their importance; and to have supposed, I think erroneously, as mental labourers subdivide their employments in the progress of society, as well as bodily labourers, that the effects of observation and knowledge might all be referred to his favourite principle. "The invention," he says, "of all those machines by which labour is so much facilitated and abridged, seems to have been originally owing to the division of labour." In consequence of this opinion, while Dr. Smith has developed at great length the influence of the latter principle, he has done little or nothing towards explaining the more important laws which regulate the increase of knowledge, and its influence over productive power (Hodgskin 1827: 77-78).

Knowledge was seen by Hodgskin as both logically and historically preceding the division of labour ("undoubtedly they [men] had learned to make bows and arrows, to catch animals and fish, to cultivate the ground and weave cloth, before some of them dedicated themselves exclusively to making these instruments, to hunting, fishing, agriculture, and weaving" [Hodgskin 1827: 79]), but also increasing as a result of it. He looked not only to theoretical notions, but also to concrete improvements, considering them to be intertwined.[9] "Inventions," in which knowledge is embodied, "always precede division of labour, and extend it, both by introducing new art and by making commodities at a less cost" (Hodgskin 1827: 80 emphasis added).

In this instance, too, Hodgskin seems to evoke Say. Say placed intellectual inquiry *before* production. He wrote that "all products whatever will be found, on analysis, to derive existence from these three operations":

> The first step towards the attainment of any specific product, is the study of the laws and course of nature regarding that product. A lock could never have been constructed without a previous knowledge of the properties of iron, the method of extracting from the mine and refining the ore, as well as of mollifying and fashioning the metal.
>
> The next step is the application of this knowledge to an useful purpose: for instance, the conclusion, or conviction, that a particular form, communicated to the metal, will furnish the means of closing a door to all the wards, except to the possessor of the key.

[9] Theoretical knowledge and useful knowledge were considered as mutually reinforcing. Writing on the "history of chemistry", Hodgskin noted that "As long as Chemistry was a mere art, confined to producing a few results, of use only to a few practical Chemists, it was of no more general interest, however useful, than the art of housebuilding or shoe-making; but now, in addition to its utility as an art, it endeavours to explain most of the alterations, unaccompanied by perceptible motion, which take place in all the substances of the globe" (Hodgskin 1824: 11).

> The last step is the execution of the manual labour, suggested and pointed out by the two former operations; as, for instance, the forging, filing, and putting together of the different component parts of the lock (Say 1803: 33).

This tripartition entails a form of division of labour ("these three operations are seldom performed by one and the same person"), but it is supposed to precede the *execution* of labour.

The ubiquity of human ingenuity in economic affairs according to Hodgskin is best epitomised in that no natural resource is a "resource" by and in itself: cows and sheep, "in nature," were altogether different "from the large flesh- and wool-bearing and milk-giving animals that are nourished by the art of the grazier" (Hodgskin 1827: 62). In a sort of *crescendo* Hodgskin applies the same reasoning to the wonders of steam engine:

> The expansive power of steam has been known almost as long as history can trace back the existence of our race; but an immense reach of intellect, numberless observations, a prodigious quantity of knowledge, gathered in all the ages of the world, and a vast variety of experiments, were necessary to devise this engine in its present admirable, but not yet perfect form (Hodgskin 1827: 68).

3. Progress and the machine

Friedrich Engels explained that it was the machinery that made the proletariat. For David Landes, "What made the factory successful in Britain was not the wish but the muscle: the machine and the engines. We do not have factories until these were available" (Landes 1986: 606). The factory system remodelled peoples' lives, took away their liberty in arranging their working schedule, subjected them to a form of monitoring that was considered by many tantamount to a new form of slavery.

For this reason, attempts to stop mechanisation were intertwined with the very uprising of the socialist movement. In a sense, socialism is in itself a consequence of the factory system: a reaction against it.

Many believed that the factory system had worrisome social byproducts. In a letter to John Bacon Sawrey Morritt, Walter Scott lamented the "very fatal consequences" of factories and the increased urbanisation of the workforce. "Much of this", he noted, "is owing to the steam engine" (Scott 1894: II, 78). The Luddites in Nottinghamshire were not alone, so to speak, in being worried about machineries. Robert Southey voiced an idea that was widespread, in the workers' movement: "The introduction of machinery in an old manufacturing country always produces distress by throwing workmen out of employ" (Southey 1836: II, 157). In revising his position on the question of mechanisation, David Ricardo wrote that "the opinion *entertained by the labouring class*, that the employment of machinery is frequently detrimental to their interests, is not founded on prejudice and error, but is conformable to the correct principles of political economy" (Ricardo 1821: 392 emphasis added).

Instead, "the division of labour and the introduction of machinery were neither to be stopped nor tempered in Hodgskin's system" (Berg 1980: 172). For example, writing in 1857, in a vigorous anti-aristocratic polemics, Hodgskin made clear to consider the use of machinery something "which carried with it only advantages" and did not make "it difficult for the people to procure subsistence" (Hodgskin 1857: 16). Hodgskin seemed oblivious to the argument that machineries were substituting for human labour – because he saw machineries as themselves at a time both the embodiment of people's labour, and a device for other people's labour. In a letter to the *Trades Newspaper*, a working class publication, published in 1825, Hodgskin asked rhetorically if "Is it men or engines that work?":

> The fact is, that the engine is only the instrument of the engineer. It does no work; but a few engineers, and the persons who assist in making and working engines, are enabled, by their peculiar talents and skills, to do as much work as could formerly be done by several millions of the people. The engineer does the work, not the engine; and if the matter had thus always been stated, I should suppose that *those persons who occasionally set about destroying instruments and machines of different descriptions, would have paused before they had come to the resolution of extirpating the skill and suppressing the knowledge of their brother workmen* (Hodgskin 1825b: 166 emphasis added).

Hodgskin supported mechanisation as he saw it as an embodiment of the creative power of labourers and because it was instrumental for gains in productivity. In Labour Defended, he noted that "by our increased skill and knowledge, labour is now probably ten times more productive than it was two hundred years ago" (Hodgskin 1825: 22-23). "Knowledge and ingenuity for inventing machines" (Hodgskin 1825: 63) were to be rewarded and were considered as essential part of economic progress. This is a remarkable point, in an age when people were still getting used to that ubiquitousness of innovation typical of modern, industrial societies.

I shall briefly focus on two examples, which say something of Hodgskin's attitude. First, his treatment of the cotton industry as proving his point on the diffusion of knowledge. Second, his view of James Watt and the steam engine, as an example of a major innovation.

Cotton was perhaps the industry "most widely associated with the industrial revolution" (Mokyr 2009: 127). Together with pumping water out of coal mines, the cotton industry was the field most strongly affected by the introduction of the steam-engine: "cotton handloom weavers" saw their trade "been completely taken over by machines" (Thompson 1984: 107). And yet the author of *Labour Defended* openly sympathised with these innovations.

Hodgskin thinks that "the effects of knowledge in increasing productive power" may be effectively understood by "referring to the cotton manufacture of this country" (Hodgskin 1827:19). As far as cotton cultivation is concerned, Hodgskin maintains that, the people engaged in this trade "must be acquainted with a branch of agriculture quite distinct from any of the common practices of Europe" but they also should "have learned one part of the manufacture." His approach is always cumulative, and considers knowledge a collective enterprise. Thus, he points out that the fact that cotton is available for English manufacturers is also a result of "the art of navigation," and thus benefits of dispersed knowledge.[10] But the true marvel lies with cotton's transformation: "to clean and pick the cotton, to spin it into warn, and weave into cloth, to bleach, dye, print, and embroider it, a vast variety of knowledge is necessary, which, if lost or forgotten in any one branch of the manufacture, would extinguish the whole" (Hodgskin 1827: 19)

[10] This is true of even the simplest instruments: "The most simple instrument in use, such as a common spade, a carpenter's gimlet, or a sewing needle, by the help of which labour is not merely facilitated, but without which several most useful and necessary daily operations could not be possibly performed, were at one time unknown; and probably required as close observation of the properties of iron and steel – of the form and powers of the human body, so to adapt the digging and sewing instruments to its capabilities – and the gimlet to the purpose of boring rapidly through wood, and brining to the surface the little pieces it cuts away – as the invention of the steam-engine at a later period required of the properties of caloric, and of the weight of the atmosphere. We have been taught the arts which our ancestors learnt by observation, and are apt to forget that they, like the new discoveries of our own times, which are to be the teams hereafter of facilitating the labour of our descendants, were the result of a close and attentive examination of the external world" (Hodgskin 1827: 22).

Since cotton manufacture is a recent development, Hodgskin argues, we can "trace every step and every cause of its improvement" but the nature of invention remains "collective." Surely enough, something "collective" means it is the output of a number of individuals and thus, in the case of a story we can easily track, we can say that if "the productive power of all those engaged in manufacturing cotton has been so astonishingly increased, it is entirely owing to the knowledge and inventions of Richard Hargreave, James Watt and their fellow labourers, and successors" (Hodgskin 1827: 21). The strength of British cotton manufacturing and its productivity, so greater than any other, is "the magnificent result for that beautiful machinery, which the skilful hand of our artisans has been taught to fashion by the combined observations and experience of ages" (Hodgskin 1827: 21).

A survey of cotton manufacture gives Hodgskin an occasion to display an uncompromising enthusiasm for technological innovation – which he sees as a demonstration of human skills and creativity:

> To construct all this machinery men must know the properties of metals, the methods of softening, melting, and fashioning them; and they must have an intimate acquaintance with the mechanic powers before these materials can be put together. So admirable, however, is this knowledge-made machinery, that the fibre of the cotton is not bruised or rent, though it be spun as fine as a gossamer-thread, and wove into a web as delicate as the curious production of the spider. To bleach, dye, and print it, other sets of machines are used, requiring different knowledge to construct them; and to perform these operations, the whole science of chemistry is summoned to the aid of the workman (Hodgskin 1827: 19-20).

Hodgskin emphasises what we may call the "you-didn't-build-that" element of invention, as MacLeod (2010: 165) points out. In this sense, knowledge breeds knowledge, better instruments require and stimulate better knowledge. This is why inventions are necessarily, in a sense, a collective enterprise. This is the case even with the steam engine, the greatest technological achievement of the age:

> The influence of society over every individual mind, is paramount to all other things. Perhaps, of the last century, there is no man who stands higher as a philosopher and a mechanic than James Watt; but he was indebted for most of his scientific and mechanical knowledge, or every thing indeed, which constituted his talents, and which contributed to his glorious success, to his having been born in Britain in the 18th century (Hodgskin 1827: 32).

Watt's achievements would be unthinkable without "an immense reach of intellect, numberless observations, a prodigious quantity of knowledge, gathered in all the ages of the world, and a vast variety of experiments, were necessary to devise this engine in its present admirable, but not yet perfect form" (Hodgskin 1827: 17). Even the most astonishing inventions are, then, nothing but the last ring of a longer chain of discoveries and developments.

And yet, Hodgskin also thought that proper incentives were needed so that innovators can get the proper reward. As we already mentioned, among the injustices that the workers need to rebel against, Hodgskin mentioned capitalists appropriating the fruits of their (intellectual) labour.

Let's examine Hodgskin's reaction to a public meeting opening a subscription to erect a statue to James Watt, in 1824. The significance of this event was underlined by MacLeod (2010), who considers it as a turning point in the process that brought to a higher social appreciation of

"inventors." [11] Hodgskin was then the editor of *The Chemist* and endorsed the idea rather enthusiastically. He wrote that Watt's "peculiar merit appears to have consisted in a steady application of the discoveries of science to the purposes of life" (Hodgskin 1824b). Watt, he thought,

> was not bred a philosopher but a man of business, having his way to make in the world; and it deserves to be remarked that the guiding motive for his exertions was a clear view of his own interest. It was his pride to make useful discoveries; and all his inventions tend to improve or adorn life (Hodgskin 1824b: 251).[12]

Hodgskin praised self-interest as stimulating inventiveness, showing that the appreciated the fact that innovation requires a certain attitude towards risk-taking. Watt "is distinguished from other public benefactors, by never having made, or pretended to make it his object, to benefit the public."

A statue in honour of Watt was noteworthy because "The present, we believe, is the first instance where they have thought it necessary to confer honours on a man who was fortunate enough, in the avowed pursuit of his own prosperity, to add to the happiness and greatness of his country" (Hodgskin 1824b: 251). Honouring Watt meant thus honouring a culture of improvement and innovation.

Hodgskin was then appreciative of machineries, as a great embodiment of human knowledge; he thought that knowledge-creation was a great collective enterprise; but he also maintained that society needed to honour and reward innovators, who were legitimately self-interested people. Machineries and machine-making men were unequivocally on the good side of history, in his view.

Ever-increasing knowledge is one part of Hodgskin's idea of progress: the other is that this increased knowledge will result in better standards of life, for a larger number of people.

Already in *Labour Defended*, he openly associated "progress" with technological development. Hodgskin contends that "profit does not decrease but increase in the progress of society — that is, the same quantity of labour which at any former period produced 100 quarters of wheat and 100 steam engines will now produce somewhat more, or the value of somewhat more, which the same thing." He sees clearly that "a much greater number of persons now live in opulence on profit in this country than formerly" (Hodgskin 1825: 79). Painting the picture with a big brush, we can certainly say that the Industrial Revolution was characterised by a significant expansion in the economy, a progressive movement of labour from agriculture into manufacturing, that is into the "making of things", and the emergence of new kinds of employment opportunities thanks to an increased division of labour. Hodgskin saw these as positive features of industrialisation.

Hodgskin also thought that competition and technological innovation were lowering prices in the long run. He distinguished between a *natural* and a *social* price. The natural price is "all which nature demands from man in order that he may have" a certain good, in terms of quantity of labour (Hodgskin 1825: 75). The social price is the natural price plus the costs of social regulations, which add up to the natural price. For Hodgskin,

[11] The theme of social appreciation for mundane jobs, creativity, and entrepreneurship as key to the Industrial Revolution is at the center of the works by Deirdre McCloskey (see, *inter alia*, McCloskey 2010).

[12] More importantly, "Mr. Watt was not a warrior, over whose victories a nation may mourn, doubtful whether they have added to its security, and certain they have diminished enjoyment and abridged freedom. His were the conquests of mind over matter; they cost no tears, shed no blood, desolated no lands, made no widows or orphans, but merely multiplied conveniences, abridged our toils, and added to our comforts and our power."

> Over natural price, the relation of the demand to supply, which is frequently said to regulate price, seems in the long run to have a tendency to lower it. The ingenuity of man being necessarily first and chiefly directed towards supplying his more urgent wants, the labour employed in supplying necessaries will be most improved (Hodgskin 1827: 238).

Speaking of the price of food, that Hodgskin thought it was generally to decline and not to raise, he likewise emphasised the role of innovation:

> The opinion that the natural price of food lessens rather than increases in the progress of society, seems borne out by facts. (…) if we observe how the proportion of persons who raise no raw produce,—including not only those who do not labour at all, but also those who are engaged in the various departments of manufactures and trade, as well as all the officers, dependents, and servants of government,—continually increases, forming, as I have already mentioned, five-sixths of this community,—we must be convinced, that in the progress of society food is obtained by less and less labour. When we look also at the various improvements continually made in the arts, most of which tend, in some way or other, to diminish the labour necessary to prepare bread and procure meat, we must come, I think, to the same conclusion (Hodgskin 1827: 226-227).

Eric Mack pointed out that in his writings Hodgskin avoided "to include a distinct normative element - the compliance of individuals with norms of conduct - among the conditions that explain the 'admirable harmony' of natural market orders" (Mack 2012: 146). Hodgskin believed there are certain regularities of human action, the specific outcomes thereof (what peculiar kind of innovation will develop) cannot be forecasted, but that will nonetheless manifest themselves, if not impeded by regulation. He thought that "the progress of society is one continual stream of improvement, however much at variance with it temporary aberrations may appear to our short-sighted view". This belief in a beneficent and evolving natural order has been considered a consequence of Hodgskin's deism (Stack 1998), but certainly owes something to Hodgskin's reading of the economic circumstances of his time.

His enthusiasm for machineries allowed him to entertain the belief that that ever-decreasing prices for consumer goods was not an exception: but was to be the rule.[13] This was not unique, but still was rare, among champions of the working classes in that age. Charles Babbage reported diminishing prices for consumer goods, which he associates with "the invention of cheaper modes of manufacturing" (Babbage 1832: 158). And yet a few decades later a great economic historian like John Clapham could still lament that "The fact that, after the price fall of 1820-1, the purchasing power of wages in general – nor, of course, of everyone's wages – was definitely greater than it had been before the revolutionary and Napoleonic wars, fits so ill" with the traditional understanding of the Industrial Revolution, as "it is very seldom mentioned, the work of statisticians on wages and prices being constantly ignored by social historians" (Clapham 1926: vi).

4. The more, the merrier

Joel Mokyr recently argued that "Hodgskin … , without using the term, came closer than anyone to realising the central role of human capital in economic growth" (Mokyr 2009: 238). The appreciation, by Hodgskin, of the importance of the workers' skill and knowledge is proven not just by his writings, but also by his commitment to the education of artisans and mechanics.

[13] Hodgskin echoes Say, who in the *Treatise* maintained that machineries were beneficial both to consumers and "the operative class", in the long run (Say 1803: 37-38).

If, as we have seen, Hodgskin thinks Smith overemphasised the division of labour without fully understanding the importance of the division (and growth) of knowledge, he nonetheless thinks that "the accuracy of Dr. Smith's remarks on the beneficial effects of division of labour, must be perceptible to every man." By continuously stressing the importance of skills, Hodgskin points out that "all the benefits" of the division of labour "naturally centre in the labourer; belong to him, and contribute to his ease or add to his opulence."

> It increases his skill, by allowing his attention to be uninterruptedly fixed on a single operation; it saves his time, by making no change of tools or of employment necessary; and it facilitates his invention of those machines that are adapted to the single and simple operations, which, in consequence of division of labour, constitute the whole task of each individual. By no single machine, perhaps, except man himself, could we perform the whole process of manufacturing a piece of cloth out of the raw material; but when the complicated process of shearing the sheep, cleansing the wool, carding, spinning, weaving, dressing, and dyeing it, has been separated into distinct operations, performed by different individuals,—machines can be, and are, made to execute most of them, even with more precision than can be done by the unaided hand. (Hodgskin 1827: 108)

In this context, Hodgskin's "anti-Malthusianism" is easily understood.[14] He was an unequivocal enthusiast for population growth, as human beings contribute their skills and knowledge to each other

> The chances of improvement, it is plan, are great in proportion as the persons are multiplied whose attention is devoted to any particular subject. […] an increase in the number of persons produces the same effect as communication; for the latter only operates by bringing numbers to think on the same subject. (Hodgskin 1827: 93-94)

> This principle seems to be amply confirmed by experience. Almost all discoveries and improvements have been made in crowded cities and in densely peopled countries (Hodgskin 1827: 95)

Hodgskin's view can be summarised in: more people, more ideas, more growth. Because of his understanding of the division of labour being based upon an increasing stock of knowledge, Hodgskin takes very seriously the idea that "the division of labour is limited by the extent of the market." He regarded population growth as inherently beneficial, precisely because it increased market participation, and thus individual skills and ideas that could benefit people through market cooperation. This means, of course, a greater scope for more specialisation and the emergence of new form of employment. The more the players in the division of labour, the merrier are the outputs going to be.[15] As observed by Beer, Hodgskin deemed "increase of population, wants, knowledge, and inventions as the dynamic factors of human society" (Beer 1984: 207).

Population growth is both a symptom and a cause of progress, which Hodgskin equates with the increase of knowledge. In his words, "every improvement, which, like the introduction of potatoes into husbandry, augments the means of subsistence, is a cause, by increasing the number of people, of multiplying to an astonishing degree the productive power of our species" (Hodgskin 1827: 59n).

[14] Hodgskin (1827: xix) considered Malthus's "celebrity" to be "unhappy." His view was that though a "principle of population" existed, it worked for the betterment of society, insofar as a growing population was creating pressure for improvement in the use of resources and generating the creative potential to accomplish such am improvement. On the point, see Kern (2003).

[15] Hodgskin was certainly aware of Say's comment that "divisions of labour cannot be carried to the extreme limit, except in products capable of distant transport and the consequent increase of consumption; or where manufacture is carried on amidst a dense population, offering an extensive local consumption" (Say 1803: 40).

More people means more "creative power", which means more "productive power", which in turns means more people. Progress, for Hodgskin, is in essence this virtuous circle.

A growing population increases not only innovators but, perhaps more importantly, the needs and wants that make for the demand in innovation:

> were population not to increase, there could be no additional wants to provide for. The labour of the past year would be more than sufficient to supply the wants of the next; and but for the continual increase of people, there would not now be, there never would have been, a stimulus to invention and to the increase of knowledge. (…) Necessity is the mother of invention; and the continual existence of necessity can only be explained by the continual increase of people (Hodgskin 1827: 86).

It is for a similar reason that Hodgskin endorses the benefits of international trade. "The immediate pecuniary advantages which accrue to all the parties concerned, in exchanging the products favoured by one climate, for those favoured by another," explains Hodgskin, "gives but a feeble notion of the benefits conferred on mankind by trade."

> The mutual exchange of the products of different climates, is a great means, therefore, of promoting civilization. It offers additional enjoyments, and to procure them it incites to additional exertions. It is the parent, consequently, of much of our skill. To obtain its gratifications, gives a perpetual but gentle stimulus to our passions, saving us both from the weariness of idleness, and from those violent emotions which are followed by painful lassitude, and end in speedy when not self-destruction. A number of innocent desires fill up, with an equable flow of happiness, the time of our existence; and foreign trade is even a greater good by the stimulus it gives to thought and exertion, than by the enjoyments it immediately bestows. (Hodgskin 1827:156)

Men would sink "into inglorious repose," if they limit themselves to self-sufficiency. "The skill and knowledge requisite at any time to provide for our animal wants, must be small, and did not some other stimulus intervene, all the ingenuity and faculties of civilised man would remain dormant, or be much limited." Higher motives can find room in human life as soon as people understand "the utility of some wealth-creating arts" and "taste the enjoyment of some new productions of human skill" so that "after our mere animal wants are gratified, we still labour, and are happy when labouring, to obtain some other, and generally foreign productions" (Hodgskin 1827: 164).

Necessity is the mother of invention – but so are adventure and trade. Hodgskin thought that abundance of human capital and trade were extending the number of necessities human ingenuity should answer to. He maintained that human ingenuity was basically boundless, as it was proven by the rapid advances of machineries in the newly-industrialised England. Human progress meant the fulfilment of this promise.

5. Conclusions

For Thomas Hodgskin, the virtuous circle of the increase of population, the increase in knowledge and the increase in wealth was the natural path of humanity.

His understanding of knowledge was cumulative: products and techniques embodied better and greater knowledge, conquered by mankind with time and effort. Necessity is the great driver of this process, which makes up for knowledge creation and economic growth.

Hodgskin's views have been described as "laissez-faire approach of simply waiting for technological progress to produce moral reform, based on an inherent understanding of natural law,

offers up a vision of permanent complaint accompanied by inaction" (Riley 2013: 11). He did not preach legal reform, but basically a benign neglect. His vision was centred upon the individual labourer. His experience in journalism and at the Mechanics Institute suggests he consider education necessary, so that the working classes can take full advantage of their circumstances.

Besides his normative (or lack of normative) points, Hodgskin's writings seem to reveal a positive appreciation of the Industrial Revolution. He appears to have been that rare thing: an advocate of the working classes that thought a brighter future was already shining.

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