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WHY DID SHUMPETER NEGLECT INTELLECTUAL PROPERTY RIGHTS?

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ABSTRACT. Joseph Schumpeter is the father of evolutionary economics and the origin of notion that technical change is the key to capitalism as an engine of economic growth. His most famous book is *Capitalism, Socialism and Democracy* (1942) which develops the thesis that capitalism is always an evolutionary "process of creative destruction". When this book was published fifty years ago, there was little solid scholarship on technical advance. Now there is a great deal, so much so that it would take a book to do justice to it. Nevertheless, Schumpeter's book correctly captures many of the stylised facts about technical progress revealed in recent research but, oddly enough, he never discussed, or even mentioned, intellectual property rights and this despite the fact that patent legislation was a prominent subject of debate in nineteenth century economics. This is a puzzle I hope to resolve in this paper.

Many commentators on the works of Joseph Schumpeter have been struck by the contrast between early and late Schumpeter as displayed in the paean to entrepreneurship in *The Theory of Economic Development* (1911) and theory about the obsolescence of entrepreneurship in *Capitalism, Socialism and Democracy* (1942). The early book distinguishes 'inventions' from 'innovations', dismisses inventions as being essentially exogenous to the market mechanism and instead underlines the process whereby inventions are transformed into innovations by entrepreneurs for the sake of short-term profits. The later book treats the innovative process as endogenously driven by the profit motive and conducted largely within the R&D laboratories of large firms. This shift of emphasis in Schumpeter's views may have been a reflection of the changes that had taken place in the American economy between the two World Wars, of which Schumpeter became aware in preparation for the historical survey of technical progress in *Business Cycles* (1939) and his increasing involvement with the Research Center in Entrepreneurial Studies at Harvard (Swedberg, 1991, p.172). Some authorities deny this thesis of a difference between an early and a late Schumpeter and provide evidence from the second English edition of *The Theory of Economic Development* (1934) to show that Schumpeter already believed in 1934 that the innovation process in advanced capitalist countries was becoming routinised in the hands of university-trained scientists and engineers, working to plan in specialised in-house labs closely linked to the products and processes of particular firms (Langlois, 1987). But others (Freeman, 1982 p.8; Rosenberg, 1994, p.58) do see a definite break in Schumpeter's thinking somewhere in the 1930s and epitomised in the virtual reduction of entrepreneurship in *Capitalism, Socialism and Democracy* to the introduction of technical innovations broadly defined to include process innovations, product innovations, marketing innovations, organisational innovations and now sources of raw materials. No book in twentieth century economics, or for that matter nineteenth century economics,

has ever come closer to utterly rejecting static theorising and with it any version of welfare economics based on the optimum allocation of resources in a market economy than *Capitalism, Socialism and Democracy.* The essence of capitalism is economic change driven by innovative activities argues Schumpeter, and far from being benign, capitalist competition is actually "a perennial endless gale of creative destruction" that would have Dr. Pangloss crying out in despair.

"In appraising the performance of competitive enterprise", he declares, "the question of whether it would tend to maximise production in a perfectly equilibrated stationary condition of the economic process is .....almost, not quite irrelevant" (Schumpeter, 1947, p.106).

And again; "In capitalist reality as distinguished from its textbook picture, it is not [price] competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organisation (the largest-scale unit of control for instance) – competition which commands a decisive lost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives". (ibid., p.84).

Once we start quoting from this second part of *Capitalism, Socialism and Democracy*, entitled "Can Capitalism Survive?" – to which the answer is a reluctant No – it is difficult to know when to stop. Richard Nelson (1996, pp.52-3) once complained that the Schumpeterian picture of technical advance under capitalism is presented somewhat sketchily in these pages but, nevertheless, taken together they constitute a veritable manifesto of evolutionary economics, warning us not to evaluate the market mechanism in terms of static efficiency rather than dynamic growth.[1]

Schumpeter's argument leads to the broad conclusion that innovations will typically be found in large firms in highly concentrated industries, or what in the old days would have been called "monopolies" and nowadays "non-contestable" markets.[2] It therefore comes as a surprise that Chapter 8 of *Capitalism, Socialism and Democracy* on "Monopolistic Practices" makes only a passing reference to patents and none whatever to trademarks or copyright and this deficiency is not made good anywhere else in the book. This is surprising because these are grants by governments of exclusive rights to private producers to sell certain goods or ideas, or expression of ideas, in exchange for the requirement on the inventor to reveal his or her useful techniques and knowledge, in short, they are protected monopolies that economists had long exempted from their general condemnation of monopolies. They did so because it was thought that the loss imposed by the temporary monopoly granted to the patentee would be offset by the social benefit of requiring the patentee to disclose his secrets; in other words, by analogy, that of copyright, the patent system was justified as a contract between the inventor and the state. Schumpeter must have been familiar with the Great Patent Debate that raged furiously between 1850 and 1875 with the victory going to the defenders of

[1]Hayek and John Maurice Clark soon eschewed Schumpeter and elaborated its significance for anti-trust legislation (see Blaug, 1997, pp.69-70, 81).

[2]This is the famous "monopoly hypothesis" inspired by Schumpeter's later writings according to which the possession of monopoly power is conducive to innovation. In the earlier *Theory of Economic Development* he had in fact suggested that innovations typically come from small and often new firms. On the vast literature testing this "monopoly hypothesis", see Scherer & Ross, 1990, Chaps. 17 & 18.

patents, despite a brief period in the 1860s in which it looked as if the abolitionists would gain the upper hand (patents were in fact abolished in Holland in 1869 and not reinstated until 1910 and Switzerland did not adopt a full patent system until 1907).[3] Bentham, Adam Smith, McCulloch, John Stuart Mill and later Sidgwick and Pigou in Britain (Hadfliield,1992) and Jean-Baptiste Say, Bastiat, Dupuit and Walras in France (Sagot-Duvauroux, 2004) all participated in this debate. Schumpeter, like any publishing author, must surely have endorsed Mill's refusal in his widely read textbook to extend the condemnation of monopolies to patents and copyrights in published books:

> It is generally admitted that the present Patent Laws need much improvement; but in this case, as well as in the closely analogous one of Copyright, it would be a gross immorality in the law to set everybody free to use a person's work without his consent, and without giving him an equivalent. I have seen with real alarm several recent attempts, in quarters carrying some authority, to impugn the principle of patents altogether; attempts which, if practically successful, would enthrone free stealing under the prostituted name of free trade, and make the men of brains, still more than at present, the needy retainers and dependants of the men of moneybags (Mill, 1909, p.933).

Besides, his friend Fritz Machlup published a survey of the Great Patents Debate in the nineteenth century in the very year that Schumpeter died (see Machlup and Penrose, 1950) and may well have discussed that survey with Schumpeter. But let us assume that he did not, another very close friend, Edward Chamberlin, teaching at the same university as Schumpeter (Harvard) included a section on patents and trade-marks in Chapter 4 of his *Theory of Monopolistic Competition* (1933). Chamberlin (1947, pp.57-64, 246-50) revelled in the idea that patents, copyrights, and trade marks were licensed monopolies and yet the very means that enable sellers to compete effectively with one another, thus blending monopoly and competition as the perfect example of what Chamberlin meant by "monopolistic competition". Finally, there was Arnold Plant's (1934a, 1934b) well-known objections to the extension of copyright, well-known in the 1930's, arguing that what is now called "the first mover advantage" would give publishers an incentive to publish even without copyright. He made similar objections to patents. And yet it never occurred to Schumpeter to relate his own conjecture that monopoly encourages innovation, or at least facilitates it, to the on-going controversy about patents, copyrights, and trademarks. Of course, patents, copyright and trademarks are simply examples of intellectual property rights (IPR) but they are not themselves the grant generalisation of IPR. And the label IPR and the generalisation implied by that label is wholly absent from *Capitalism, Socialism and Democracy* which brings us to the question from which we started: Why did Schumpeter neglect IPR?

My first answer to that question is banality itself. It never occurred to anyone before, say the 1980s, that such disparate phenomena as patents for mechanical inventions, industrial products and processes (now extended to biotechnology, algorithms and even business methods), copyrights for the expression of literacy and

[3]A prominent opponent of the patent system was John Lewis Ricardo, a nephew of David Ricardo.

artistic expressions in fixed form and trademarks and trade names for distinctive products and services, could be generalised under the heading of property rights, all conferred by the legal system in relation to discrete items of information resulting from some sort of appropriate intellectual activity.[4] Why did this happen in the 1980s and not in the 1940s, so that it could have come to Schumpeter's attention? Undoubtedly, the answer to that question lies in the discovery of photocopying, the proliferation of software computer programs, the growth of the pharmaceutical industry and the multiplication of new plant varieties, etcetera, etcetera.[5] However, it is by no means certain that the use of IPR as a broad term for the traditional categories of patents and copyrights and trademarks enlightens more than it misleads. Things such as mechanical inventions, literary and artistic works, trade marks and industrial designs, differ so radically in their production technologies, sources of supplies and modes of consumption, not to mention modes of legal enforcements, that to bundle them all together under the rubic of IP smacks to me of over-generalisation.

Be that as it may, it was the rise of property rights economics in the 1970s, and especially the 1980s, that finally tied together the old labels of patents, copyrights and trademarks in one label of IPR, giving rise to our question that would simply have made no sense to anyone writing in 1942.

The economic rationale for patents, copyrights and trademarks was itself transformed by the property right approach, stemming from Coase's objection to Pigovian welfare economics and the emergence of law and economics as a distinct disciplinary subject (Medema, 1995). Economists had always argued the case in terms of a trade-off between the incentive to innovate and the encouragement to disclosure: the greater the strength of the incentive, say, by lengthening the life of a patent, the less is the access to the resulting information, and vice versa. The argument now rested more directly on the efficiency of private ownership as a means of discouraging the overuse of common property – the so-called Tragedy of the Commons – and of encouraging investment in common property to improve its productivity. Once property rights are clearly established, the price mechanism working in competitive markets can then be relied on to lead to the best use of resources (see e.g., David, 1993).[6]

So, what have we learned? That intellectual labels change over time? Well, yes, but more than that I hope that the invention of the labels themselves alter the content of those labels. We literally cannot conceive of particular licensed monopolies as intellectual property rights that the state is protecting as it protects the title of an office or the name of a family. Whether an innovation requires such protection is an inconceivable question until we are persuaded that all profitable ideas are really marketable properties that are similar to infant industries in international trade. The history of economic thought is full of these inconceivable ideas conceived of only when they are so labelled. Could asymmetric information inhibit markets

[4] I say this despite the fact that the first published paper of Walras, one of Schumpeter's favourite authors, bore the title "De la propriété intellectuelle, position de la question économique". This paper has only recently been reprinted in Walras and Walras (2001).

[5] On all that, see Dosi et al. (1988), Freeman (1994), Dodgson and Rothwell (1994) and Scherer (1999), Chap. 5.

[6] The growth of substantial markets in technology licenses between firms have recently altered the patents debate significantly (see Baumol, 2000).

from developing for certain goods and services? An impossible idea before the Akerlof (1970) "lemons" paper. Is the employment contract a standard principal-agent monitoring problem no different from hiring an architect to design your house? An absurd idea before Alchian and Demsetz (1972). Are business firms really nothing more than an organisational device to avoid market contracts in order to minimise transaction costs? Who would have thought like that about managerial economics before Coase (1937)? Are patents, copyrights and trademarks just products of the mind that are capable of being appropriated and therefore of being bought and sold? But of course!

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