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Ronald H. Coase (1910-2013)¹

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Abstract

The purpose of this chapter is to link Ronald Coase's methodological approach to what he 'learned' when he was at the London School of Economics (LSE) from Edwin Cannan and Arnold Plant. The main lesson Coase taught us and insisted upon was that economics should not be too 'abstract' and should not rely on a priori categories. He pleaded for more realism in economics, for a form of 'political economy': economists should use theory to generalise what facts tell us rather than trying to interpret facts by using a priori and abstract categories. This conception of economics is closer to the LSE of Cannan and Plant than to the Chicago of Stigler, Friedman, Becker, or Posner.

Keywords

Coase; methodology; realism; Plant; Cannan; political economy; common sense; Chicago; LSE.

1 Introduction

Ronald H. Coase was one of the most important and also one of the most famous economists of all time. His work transformed economics by giving birth to new subfields in economics, namely transaction cost economics² and law and economics.³ It also transformed economists' way of thinking with regards to firms and transaction costs, institutions and property rights in economic activities. It is no surprise that Coase's work is heavily cited. His 1960 article, "The Problem of Social Cost", is reputed for being one of the most cited economics articles of all time, and thousands of

¹ I thank Elodie Bertrand and Rustam Romaniuc for comments on earlier versions of this chapter.

² Williamson (2006) claimed that Coase's work can regarded as being amongst the very earliest on the subject of transaction cost economics.

³ "The Problem of Social Cost" is usually viewed as the foundation of 'new' (see Posner 1975) or 'modern' law and economics (see Hovenkamp (1990: 994); see also Manne (1993) and Stigler (1992)). Coase has been described by the American Law and Economics Association as one of the founders of the law and economics movement (the others are Guido Calabresi, Henry Manne and Richard Posner (see http://www.amlecon.org).

pages have been devoted to his work. This has contributed to a clear but narrow image of Coase and his ideas. Despite important recent scholarship that has tried to refine this image (among other works, see Bertrand (2006, 2009, 2010), McCloskey (1998), Medema (1994, 1995a), Medema and Samuels (1997), Klaes (2000) and Boettke and Candela (2014, 2015)), this image has not really changed. In particular, Coase remains closely associated with the (new) Chicago School of Economics and is viewed as one of the most important defenders or promoters of free markets. This is not recent: in 1962, while Coase was *not* at Chicago, Lawrence Miller cited "The Federal Communications Commission" (Coase 1959) as an 'example' (Miller 1962: 66, fn. 10) of pro-market Chicago economics. Old habits die hard.

However, Coase did not feel at ease with the way of envisaging economics advocated by the (new) Chicago School of Economics of Milton Friedman, George Stigler or Gary Becker and Richard Posner (Posner 1993b; Medema 1994, 1995b). He explicitly referred to this unease in the late 1990s and early 2000s when he complained that Stigler's naming of the 'Coase theorem' was too 'abstract' (Coase in Ferrarine et al. 1997) and misrepresented his [Coase's] work. Coase had also expressed his disagreement with Chicago in the 1970s. While the claim that economics should be viewed as an 'approach' (Becker 1971: 4, 5) without subject matter was gaining importance and economics became increasingly applied to areas traditionally not studied by economists – in particular, to the law by Posner⁴ – Coase wrote articles to clarify his methodological position and distinguish it from those of Becker and Posner

⁴ Coase had been a contributor to the area of law and economics since the late 1950s/early 1960s (see Coase 1959, 1960) and became the editor of the Journal of Law & Economics in 1964. He disagreed with Posner's idea that economics could be used as a method to analyse the workings of the legal system. Indicative of the gap that existed between Coase and Posner, in 1972, Posner launched the Journal of Legal Studies, following a suggestion by Coase, this at a time when Coase was still editor of the Journal of Law & Economics. Both journals were hosted at the Law School of the University of Chicago and published by the University of Chicago Press. On the differences between Posner and Coase, see, amongst others, Harnay and Marciano (2009).

and also of Lionel Robbins. The latter, one of the most important and influential economists of the London School of Economics (LSE), had a conception of economics that was used and pushed further by Chicagoans but one that also became dominant more widely in economics. Actually, Coase established another connection between Chicago and London. When Coase was at LSE, besides Robbins and a group of economists around him, there was also Arnold Plant and his so called industry group. Coase belonged to the latter. It was in this group that his views on economics and on markets were born. This is precisely the connection between a certain tradition at LSE and Coase's ideas that we would like to discuss in this chapter.

After a biographical summary, we discuss Coase's conception of economics and then show how it impacts his conception of institutions and, in particular, markets.

2 Biographical Summary

Coase was born on 29 December 1910 at Willesden (a suburb in northwest London) and died on 2 September 2013 in Chicago. He had lived a long 102 years, half of which was spent in the USA – first at Buffalo and then Chicago – and the other – first – half was spent in the UK, in particular at LSE. It is there that he studied economics. More precisely, he enrolled in an undergraduate commerce degree in 1929. In his second year, Coase attented the lectures of Arnold Plant. We will say more below about how Plant's ideas influenced Coase. For now, let us say that Plant then supervised the work Coase did during his third year (1931-1932) which he spent traveling in the USA on a Sir Ernest Cassel Scholarship. Coase visited factories and carried out interviews to improve his understanding of the structure of American firms and industries. When he came back, he secured teaching positions first at the Dundee School of Economics and Commerce from 1932 to 1934, at the University of Liverpool from 1934 to 1935, and

then at LSE from 1935 until 1951, with the exception of the Second World War during which Coase worked in the Central Statistical Office. In 1951, Coase earned his PhD from the University of London and was offered by Robbins the Tooke Chair at LSE. At the same time, Coase received a proposal from Ralph C. Epstein at the University of Buffalo, now the State University of New York at Buffalo. To Robbins's disappointment, Coase accepted Epstein's proposal and went back to the USA where he settled permanently.

Coase taught for a few years at Buffalo. In 1957, he gave a series of lectures examining the economics of radio, television and the press. One of the attendees was G. Warren Nutter, then Professor at the University of Virginia and Co-Director of the Thomas Jefferson Center with James Buchanan, who recounted later that: 'Nutter returned to Charlottesville mightily impressed with Coase, and he immediately commenced to examine the prospects of prying Coase away from the University of Buffalo ... After lengthy, and sometimes tortuous negotiations, the deal was made, and after a full year's delay, Coase shifted to Charlottesville' (Buchanan 2006: 36).

Actually, before moving to Virginia, Coase went to California where he spent time during 1958-1959 at the Center for Advanced Study in Palo Alto. It is where he began writing "The Federal Communications Commission" (Coase 1959; see also Coase in Kitch (1983: 222)). This was the paper that attracted the attention of the economists at Chicago. Disagreeing with the anti-Pigovian message of the paper, they invited him to present his views at a Chicago seminar for economists, a number of whom, Coase explained, thought '[p]art of the argument...to be erroneous' (Coase 1991a)⁵ because it was 'contravening Pigou's analysis' (Coase: 1996: 810). After the seminar, Coase was invited to Aaron's Director house to explain himself and was

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The 'part' was the fact that the allocation of resources is independent from legal rules.

successful in convincing 'all the big shots of Chicago' (Coase in *Reason* 1997) that his view was not 'heresy': 'In the course of two hours of argument, the vote went from 21 against and one for Coase to 21 for Coase' (Stigler 1988: 76). To Stigler, it was such an 'exhilarating event' that he 'lamented afterward that we had not had the clairvoyance to tape it' (ibid.: 76). For Coase, the evening was stimulating too. Indeed, it was a turning point in his career. For one thing, 'After that seminar, Aaron [Director] said, "Would you write this up for the *Journal*," and I wrote it up in the summer of 1960' (Coase in Kitch 1983: 221). The first outcome was Coase's famous article on "The Problem of Social Cost" and the second was a position at the Law School of the University of Chicago – where Stigler managed to hire him in 1964 – and the editorship of the *Journal of Law & Economics*, a proposal made by Director. Coase spent the rest of his academic career at Chicago, retiring in 1982.

In 1991, he was awarded the Nobel Prize in Economics. But he did not stop working. Among the many things that he did one must mention the founding, under the auspices of the Coase Society, of a journal called *Man and the Economy*. Coase was over 100-years-old when this took place. The goal of the journal was to contribute to the emergence of a new paradigm in economics because the discipline had degenerated into 'blackboard economics' and moved too far away from 'the ordinary business of life'.

3 Coase's Methodology and his Definition of Economics

Remembering his years in London, Coase once wrote that What set me going was the approach I learned from Plant, and this no doubt came via Plant from his teacher, Edwin Cannan' (Coase 1988a: 20).⁶ The views of these two economists are crucial in

^o Medema and Zerbe (1997) also cite Hewins (see, in particular, his 1911 article in Encyclopedia Britannica) as someone whose work was close to Coase's. One of the founders of LSE in 1895, Hewins was described by Hayek (1946: 4) as 'in revolt against "orthodox" economics'.

understanding Coase's conception of economics.

Cannan, 'the chief teacher of economic theory at the LSE...before World War I (Koot 1982: 14), - was instrumental in the creation and establishment of an LSE tradition in economics and, more specifically, contributed to a revival of classical liberalism in Great Britain.⁷ Cannan favoured, as Coase remembered it, a 'common sense' approach in economics (Coase 1982: 33). To Cannan, economics should be 'expressed in plain language understood by the people' (Cannan 1933: 370), which was not, at least to him, the case in those years. Moreover, a common sense political economy should be theoretical and 'relevant to a particular time and place' (Koot 1982: 15). It is no surprise that the title of Cannan's Presidential Address to the British Association in 1902 was entitled "The Practical Utility of Economic Science". He was not against theory per se but rather against a sort of theory that would be completely 'abstract'⁸ and devoid of any connection to history and to the practical problems of society.⁹ Thus, in the Presidential Address he delivered at the 1933 annual meeting of the Royal Economic Society, the year after the publication of Robbins's An Essay on the Nature and Significance of Economic Science (Robbins 1932), Cannan regretted the tendency of economists to 'find peace and contentment in neat equations and elegant equilibria' (Cannan 1933: 370) and deplored 'the almost complete absorption of the

⁷ According to Hayek, Cannan 'created the tradition which, more than anything else, determined the intellectual climate in the central department of the School' (Hayek 1946: 6). It was thanks to Cannan's influence that LSE became 'one of the very few centres of teaching in which the tradition of classical liberalism was carried on' (Hayek (1963) [1995]: 52-53). Let us note, however, that Cannan was already retired when Hayek arrived at the School.

⁸ For instance, he opposed Marshall, criticising him for having 'constantly supposed that "abstract theory" must be defended at almost any cost against the attacks of the "historical school" (Cannan quoted in Koot 1982: 15).

⁹ Among the many examples Cannan used to illustrate his claims, one finds the theory of marginal utility which, 'simple as it is...has never made much way among the general public...because...it has been treated as a classroom plaything to be illustrated by lines and curves on a blackboard, which, like the stone and wooden idols of the more degraded religions, come to be revered for themselves rather than for the things they were originally intended only to represent' (Cannan 1933: 370).

younger teachers in making what they rightly or wrongly believe to be important advances in the higher branches of theory' (ibid.: 367), hoping that 'out of the large accessions to the ranks of professional economists which have taken place in recent years, a substantial force might be spared to assist common sense to grasp the bare elements of economic science' (ibid.).¹⁰

Among Cannan's students were both Robbins and Plant. However, as Coase noted, 'it seems to me that the influence of Cannan's common-sense approach to economic policy is more strongly felt in Plant's work' (Coase 1977: 87) compared to that of Robbins. Actually, Robbins disagreed with Cannan and Plant regarding the definition of economics (see Robbins 1929, 1932 and Coats 1982). Plant, in contrast to Robbins, 'retained in his teaching Cannan's interest in institutions and his common sense approach' (Coase 1982: 33). This translated into a conviction that economics should aim at explaining the real world: Plant was, as Cannan had been, 'an applied economist' (ibid.). Indeed, what Plant taught to the economists who were around him was to treat economic theory 'seriously' (Coase 1970: 115) and as a means of applying ' ideas...[to] the real world' (ibid.). Plant taught his students to pay attention to theory but also to the real world, to the applied dimension of the problems they studied: '[A]lthough deeply interested in the theoretical advances being made, [the Plant group was] more concerned with the practical problems of their application to business and public administration' (Coase 1977: 87). Without facts, economic theorising was empty and vain. Gathering facts and data were the first task that economists should perform. It

¹⁰ This echoes what Robbins had said in his Inaugural Lecture, delivered in 1930: 'Ladies and gentlemen, the science which will emerge from the developments I have been indicating will not be a body of knowledge accessible to everyone. The days are gone when Political Economy was a fit subject for a gentleman to study in his moments of relaxation. It is sometimes said that one of the main duties of economists at the present day is to make plain to everyone the main doctrines of their science. This is not a view which I find possible to accept ... [I]n fact, I believe, that the hope that Economics will ever become something which the layman can comprehend without training is doomed for ever to frustration' (Robbins 1930: 23). See Coats (1982) for a more complete comparison.

was only after having gathered facts that theory could be used to make sense of the empirical evidence with which the analysis started.

This is what Coase retained, saying that economics should be 'practical', its goal being to improve our understanding of the real world. To him, economics is 'the study of man as he is and the economic system as it actually exists' (Coase 2012). This methodological claim has two dimensions that are important in understanding Coase's methodology: The first relates to the domain of economics and what economists should study, and the second relates to the methods that economists should use.

Regarding the first dimension, Coase was convinced that a science has a, and should be defined by its, subject matter; this is 'the dominant factor producing the cohesive force that makes a group of scholars a recognizable profession' (Coase 1978a: 204), 'the normal binding force of a scholarly profession' (ibid.: 206), what 'distinguishes' (ibid.: 207) it from other professions. Economists are no exception. As with any other scientists, they 'do have a subject matter' (Coase 1998: 73) or, in other words, they 'study certain kinds of activities' (Coase 1978a: 206). The implication is that economists should limit their analyses and use the tools of their discipline within the limits of their subject matter. This is what Coase meant when he insisted that economists should study 'the working of the economic system, a system in which we earn and spend our incomes' (Coase 1998: 73). To be more precise, for Coase this meant that economists should study '[t]he working of the social institutions which bind together the economic system: firms, markets for goods and services, labour markets, capital markets, the banking system, international trade, and so on' (Coase 1978a: 206-207). He added that we are talking about a 'system' that is 'a complicated set of interrelationships' (Coase 1998: 73) made up of interactions and transactions and not the sum of choices made by isolated individuals. He therefore did not distinguish

between studying the economic system and its institutions. It can thus be said that Coase did not only define economics by its subject matter and, complementary to this, as a science of exchange (see Boettke and Candela 2014, 2017).

By contrast, he opposed the conception of economics as a science of choice *and* as a method (without subject matter), two characteristics that Coase also viewed as indissociable (see Coase 1998: 72-73). His reasoning was that, once economics is defined as the science of choice, there is no reason to limit its scope to economic activities. Economics can then easily become 'the study of *all* purposeful human behaviour and its scope is, therefore, coterminous with all of the social sciences' (Coase 1978a: 207; italics added). Once restricted to the study of human choice, economics can be defined as a method or as an approach that can be applied to any kind of social phenomenon. Hence the so-called economic imperialism that developed at Chicago, which Coase could easily observe and with which he disagreed. Indeed, the economists who envisage their discipline as a set of tools without subject matter – as Becker and Posner did but also John Maynard Keynes and Joan Robinson (see Coase 1998: 73) – behave as if they were studying 'the circulation of the blood without a body' (ibid.).

After having specified what, according to Coase, economists should study, the next question is *how* they should proceed to understand the *system as it actually works*. This is the second step that is necessary to characterize Coase's methodology. After all, one may well conceive economics as limited to a subject matter and as an abstract science. This was, for instance, the view held by Stigler. As he wrote to Thomas Kuhn, he was convinced that 'it is part of a theory's formulation that it have a domain' (Stigler quoted in Schliesser 2012: 163). To Stigler, the 'insularity' or 'autonomy' – he used the terms synonymously – is not only 'surely essential to [the] existence [of a science]' (Stigler 1960: 45) but also to its success and a discipline open to other disciplines

'would simply not be a discipline'. But Stigler also believed that economics – and any science – should not depend 'upon the current output of events' (ibid.) but should be based on abstract and general statements.

Coase disagreed with these two aspects. He criticised those approaches to economics that he called, in an echo of Cannan, 'blackboard economics' (see Coase 1988b: 19, 28, 179; 1991b) for being abstract. To him, abstraction implied 'little concern', 'disregard' or 'disdain' 'for what happens concretely in the real world' (Coase 1998: 72). Abstract theories could not but 'misrepresent the character of man and the nature of the economy' (Coase and Wang 2013).

Coase identified the misrepresentation of man in the "theories of utility" which are abstract because they represent individuals as atomised rational utility maximisers (Coase 1978b: 244; see also Coase (2012) and Coase and Wang (2013)). To assume that individuals maximize a utility function allows economist to predict – with some accuracy – what *abstract* individuals will do. The prices and quantities that are computed in economic models are valid only in the abstract world that models represent. These are estimates made by an external observer that do not, and cannot, exist in the real world. This is the case because prices and quantities do not exist for the individual independently from the choice itself or, as Buchanan argued, cost and choice are interrelated.¹¹ It is only when the choice becomes effective that individuals know the price that they are ready to pay and the quantities that they want to demand or supply. This was also Coase's view as seen in particular in a series of articles on business organisation and accounting (see, for example, Coase (1938); see also Bertrand

¹¹ Such a subjectivist approach to costs was also perfectly summarised by George Thirlby in 1946 when he wrote that, 'Cost is inevitably related to the behaviour of a person' (Thirlby 1946: 33). Thirlby was also an LSE graduate and then faculty member. He co-edited with Buchanan a book on the so-called LSE tradition in cost theory (Buchanan and Thirlby 1973). That Coase remained a 'subjectivist after the 1930s is far from clear (see Bertrand 2015b).

(2015a)), and the reason why Buchanan saw Coase as one of the representatives of the LSE's tradition on cost (Buchanan 1969; Buchanan and Thirlby 1973). As a consequence, the economic theories that assume that individuals are rational utility maximisers do 'not tell us why people choose as they do' (Coase 1988b: 5), what are 'the purposes which impel people to action' (Coase 1978b: 244) and 'for which they engage in economic activity' (Coase 1978a: 208). These theories are therefore 'sterile' (ibid.) because they do not tell us anything about how men actually behave and cannot teach us anything about how the system works in practice.

Similarly, firms, one of the most important institutions of economic systems, are misrepresented by standard economic analyses because they are viewed in abstract terms. Economists do not analyse them. They presuppose the existence of firms and focus on the process of production only (see Coase 1988b: 5).¹² Firms are then reduced to a technology of production aimed at turning inputs into outputs. They are a 'shadowy figure', Coase wrote (ibid.), echoing Frank Hahn (1981: 131). Coase identified similar problems with the modern treatment of the market in economics: '[I]n modern economic theory the market...has an even more shadowy role than the firm' (Coase 1988b: 7); 'discussion of the market itself has entirely disappeared' (ibid.) from modern textbooks because the focus is put only on the determination of price. The consequence is that these theories cannot be said to adequately describe what is happening in the real world¹³ and provide any valuable insights as to why there are firms, how they function

¹² In 1978, Coase considered that economists 'have a primitive analytical system to handle the firm, the market, the process of contracting and property rights' (Coase 1978b: 244). The comparison between economics and biology which Coase made in this paper, an approach that was particularly trendy in those years amongst economists, was not favorable to economics. Twenty years later the judgement was the same: 'Biologists now have a detailed understanding of the complicated structures that govern the functioning of living organisms. I believe that one day we will have similar triumphs in economics' (Coase 1998: 73).

¹³ Coase was struck by one problem: economic theories viewed coordination through markets, via prices, as distinct and separate from coordination through firms. Realistic explanations of market coordination and coordination through firms, the existence of firms and their size were lacking. There was

and are organised and how entrepreneurs or managers make choices and what is the role of markets.

These theories are, as with the theories of utility, useless and can even be dangerous. They lead to erroneous normative conclusions. For instance, the economists who analyzed the economic function of lighthouses started with an objective definition of a public good, in turn noting that markets can fail in the presence of public goods and also what the State should do to correct these failures and to not consider what are or were the behaviours of individuals. In this case, we are not talking about 'misinterpretation' but simply of 'ignorance': 'Despite the extensive use of the lighthouse example in the literature, no economist, to my knowledge, has ever made a comprehensive study of lighthouse finance and administration' (Coase 1974: 375); '[t]his seems to me to be the wrong approach' (ibid.).

The "right" approach, that would allow for the production of useful theories, consists in observing what actually happens in the economic system. This is why Coase pleaded for, and took care to anchor his work in, empirical studies and, more precisely, case studies:

I think we should try to develop generalisations which would give us guidance as to how various activities should be best organised and financed. But such generalisations are not likely to be helpful unless they are derived from studies of how such activities are *actually* carried out within different institutional frameworks (ibid.; italics added).

Coase did not do much empirical work in the form of econometric studies (exceptions are his works with his LSE colleague, R.F. Fowler, on the pig cycle (Coase and Fowler 1935a, 1935b, 1937). Significantly, his famous article, "The Nature of the

a 'gap in economic theory between the assumption (made for some purposes) that resources are allocated by means of the price mechanism and the assumption (made for other purposes) that this allocation is dependent on the entrepreneur-co-ordinator' (Coase 1937: 389). Coase found it necessary to 'bridge' (ibid.) that gap in order to gain realism.

Firm" (Coase 1937), grew out of interviews of managers he made in the USA in 1931. That was for him the only possible way to improve his understanding of how firms work and how industries are structured. After those interviews, Coase could say that he had clearer ideas about markets, firms and coordination. The same kind of method can be found in his analyses of public utilities which did not consist of abstract models about public firms but were grounded in observations of how the postal service or the BBC (Coase 1947a, 1948, 1950) actually work. Interestingly, Coase's second famous article, "The Problem of Social Cost" (Coase 1960), was entirely based on case studies. It was, as Mishan put it, 'a learned paper, replete with case law' (Mishan 1965: 29). Of course, this is also the approach Coase followed in his analysis of lighthouses (Coase 1974), in which he started from empirical evidence rather than with abstract and a priori categories.

This does not however mean that Coase defended an approach based on a spineless, atheoretical, collection of facts and data in the form of a "naive" empiricism that has frequently been used by institutionalists (see Boettke and Coyne 2005). On the contrary, he insisted that facts without a theory would be useless. Indeed, this was his main criticism against institutionalists: 'John R. Commons, Wesley Mitchell, and those associated with them were men of great intellectual stature, but they were anti-theoretical, and without a theory to bind together their collection of facts, they had very little that they were able to pass on' (Coase 1998: 72; on Coase and institutionalism, see Medema (1996)). Thus, from this perspective, one may note that "The Nature of the Firm", although based on empirical evidence, is not an empirical paper. In "The Problem of Social Cost", Coase used what we have called a "toy model" – that was his theoretical framework – 'in complement with the legal case and, reciprocally and complementarily, the legal cases were means to illustrate and clarify the result reached

through the numerical example' (Frischmann and Marciano 2015: 330). Such a backand-forth movement between facts and theory is typical of Coase's method, albeit a method necessary 'to improve our analysis of the working of the economic system' (Coase 1993: 250). As Bertrand (2008) has noted, Coase used facts to establish theories. Let us see now how this affected his analysis of markets and firms.

4 Institutions: Markets, Firms and the State

Coase was not the pro-market economist that a close association between his name and work and a theorem – named for him by Stigler (1966: 113) – seem to imply. He was balanced with regard to the respective roles of the market and the State and, more broadly, to the roles of all possible institutions. Indeed, he 'was essentially studying and trying to explain the boundary between "the market" and "the non-market" (Veljanovski 2015: 5). Or, as Coase put it himself:, 'I am arguing for sensible government action. I am arguing for a properly functioning market. These aims are not inconsistent' (Coase1965: 167). It nevertheless remains that the case that Coase believed that the market should be used, and favoured over any intervention by the State, whenever it was possible, even in cases which economists usually view as incompatible with the market, such as increasing returns, public goods or harmful effects. This thesis characterizes all of his work. It was not only present in Coase's later writings, such as the "The Federal Communication Commission" (1959), "The Problem of Social Cost" (1960), "The British Post Office and the Messenger Companies" (1961), "The Interdepartment Radio Advisory Committee" (1962), "Evaluation of Public Policy Relating to Radio and Television Broadcasting: Social and Economic Issues" (1965), "The Lighthouse in Economics" (1974) and many other works; one also finds evidence of a defence of markets and the pricing system in his earlier articles, such as "The Nature of the Firm" (1937), "The Marginal Cost" (1946) and of course his work on the BBC and the British postal service. Coase thus did not become a liberal when he moved to the University of Virginia and met Buchanan, Nutter, and Tullock. His confidence in the market and the price system pre-dates this. Indeed, it can be traced back to the years he spent at LSE.

For sure, at LSE, Coase made the acquaintance of Abba Lerner, Nicholas Kaldor, Brinley Thomas and Evan Durbin, all economists who, as Coase put it, held 'very different views" (Coase 1982: 34) than Robbins, Hayek and Plant about private enterprise (ibid.). They were indeed favorable to the regulation of the economy by the State and played, according to Coats, an important role in the 'transfer of allegiance from Hayek to Keynes' (Coats 1982: 29) at LSE.¹⁴ But even if '[t]he intellectual atmosphere [at LSE] was extremely agreeable' (Coase 1982: 34) and 'differing political views did not impede economic discussion', it was rather the teaching of Robbins. Hayek and Plant who influenced Coase, the effect being 'to make students look to private enterprise for solutions to economic problems' (ibid.).Plant played the major role in convincing Coase of the virtues of the market. Attending Plant's seminar was to Coase a 'revelation' (Coase 1991b: 715), radically changing his views on the working of the economic system: 'Before being exposed to Plant's teaching, my notions on how the economy worked were extremely woolly. After Plant's seminar, I had a coherent view of the economic system'. In particular, Coase found a coherence around the notions of the invisible hand and competition. Plant had 'introduced me to Adam Smith's "invisible hand"...[and]...explained how a competitive economic system coordinated by prices would lead to the production of goods and services which

¹⁴ Bob Coats cited Lerner and Kaldor but added also Tiboµr Scitovsky, Harold Barger and Michał Kalecki whom Coase met when he was at LSE.

consumers valued most highly' (ibid.; italics added), which can be interpreted as meaning that Plant taught him why a *competitive system coordinated by prices* should be preferred to other forms of the organisation of production.¹⁵

Coase was more explicit in his research. In particular, in his early work, perhaps when Plant's influence was still significant, he included references to the important role of consumers, explaining that the pricing system is 'one in which individual consumers have command over various sums of money which they use to obtain goods and services by spending this money in accordance with a system of prices' (Coase 1946: 171). Then, he justified the system by arguing that it is the most efficient way to know what individuals, consumers and producers want to pay for obtaining a good. Thus, he wrote that a pricing system is 'a most useful guide to what consumers' preferences really are' (ibid.: 172). More broadly, as he wrote in the case of radio frequencies: '[I]t is one of the advantages of the pricing system that, for its efficient working, the only person who needs to know about how any given user would use radio frequencies is the user himself' (Coase 1962: 43). This therefore guarantees 'that resources are obtained by those who will pay the most for them' (ibid.: 40). By contrast, information about an individual's willingness to pay is very difficult to obtain in a centralized way, that is by the State:

[A]n administrative agency...cannot, by the nature of things, be in possession of all relevant information possessed by the managers of every business which uses or might use radio frequencies, to say nothing of the preferences of consumers for the various goods and services in the

¹⁵ Thus, from this perspective, consumers' sovereignty is the normative criterion to use to judge a competitive system coordinated by prices. Plant insisted on the importance of consumers in the economy: '[T]he demand of ultimate consumers...is...the controlling power which ultimately determines the nature and volume of all production' (Plant 1932: 46), and '[t]he controlling employer in the productive system is the community of consumers' (ibid.: 52). This echoed William H. Hutt's defence of consumers' sovereignty, – a concept that he invented (see Hutt 1936, 1940). Hutt graduated from LSE, where he was influenced by Cannan and Plant. In 1928, he became Lecturer at the University of Cape Town where Plant also held a position, moving back to LSE in 1930. For his part, Plant did not speak of consumers' sovereignty but of the 'freedom of consumers' choice, as the condition of individual liberty in its *full sense*' (Plant ibid.: 53; italics added).

production of which radio frequencies could be used (Coase 1959: 18). Indeed, the arguments for the adoption of the pricing system 'derive their main force from the view that such estimates of individual demand by a Government would be very inaccurate' (Coase 1946: 175).

Coase defended the pricing system, even though he admitted that such a system is costly. Actually, Coase had realised quite early on that 'there are costs of using the pricing mechanism' (Coase 1991b). According to his own recollections, this realisation took place in the summer of 1932, that is when he was working on "The Nature of the Firm". Moreover, throughout the years, Coase never failed to insist that all the operations that are necessary 'to carry out a market transaction...are often extremely costly' (Coase 1960: 15). More precisely, all transactions in an economy are plagued by so-called *transaction costs*. This concept became a sort of motto for Coase. For him, 'it is impossible to understand the working of the economic system...[w]ithout the concept of transaction costs' (Coase 1988b: 6). Thus, he insisted that if we want to study and understand 'the world that exists', there is no better alternative than 'to introduce positive transaction costs explicitly into economic analysis' (ibid.: 15).

This might seem surprising, or indeed an ambiguity, since Coase is frequently cited or remembered and criticised for having argued that markets are always efficient when there are no transaction costs. For example, he began "The Problem of Social Cost" by examining the 'case...when...the pricing system works smoothly (strictly this means that the operation of a pricing system is without cost) (Coase 1960: 2). However, to reduce Coase's analysis to just this case – and to the Coase theorem – would be doubly misleading. It gives the wrong impression, first, that Coase was interested only in explaining how markets work under the specific assumption of zero transaction costs and, second, that, to him, the economy could either be based on a pricing system (when there are no transaction costs) or on other forms of institutions (when there are

transaction costs). But that does not correspond to Coase's view. Indeed, even Coase agreed with the assumption of zero transaction costs as being somewhat 'heroic' (McKean 1970: 31) or, at least, he dismissed it as unrealistic: '[T]he assumption...that there [are] no costs involved in carrying out market transactions is, of course, a very unrealistic [one]' (Coase ibid.: 15). As such, although the insights we get from the study 'of what would happen in a world of zero transaction costs' (Coase 1981: 187) may be 'valuable', they are 'without value except as steps on the way to the analysis of the real world of positive transaction costs'. As a consequence, '[w]e do not do well to devote ourselves to a detailed study of the world of zero transaction costs' (ibid.) or '[i]t would not seem worthwhile to spend much time investigating the properties of such a world' (Coase 1988b: 15).¹⁶ It could be interesting but only as 'a preliminary' that would precede the 'development of an analytical system capable of tackling the problems posed by the real world of positive transaction costs' (ibid.), which was the actual objective pursued by Coase. To be more precise, Coase was primarily interested in understanding how various institutions - including the market - perform when there are positive transaction costs, which happens all the time; he wanted to know whether or not one can rely on the pricing system in cases where there are transaction costs and, accordingly, if other institutional arrangements are required to complement or replace the market.

To understand Coase's solution to this problem, one must not forget that he believed that *all* institutional arrangements – the pricing system but also firms and the government – are costly. Certainly, 'a pricing system puts additional marketing costs on

¹⁶ This claim would be trivial, a truism indeed, for when there are no transaction costs, the pricing system works smoothly and, one could add, all exploitable gains from trade are exploited. Coase even wrote that, 'In an economic theory which assumes that transaction costs are nonexistent, markets have no function to perform' (Coase 1988b: 7). More generally, 'the institutions which make up the economic system have neither substance nor purpose' (ibid.: 14).

to consumers and firms' (Coase 1946: 172), but one should not therefore condemn the market because there are always transaction costs. Or, to put it in other words, one should not justify the intervention of governments on the basis of the failure of markets. We should not forget, claimed Coase, that the 'governmental administrative machine is not itself costless. It can, in fact, on occasion be extremely costly' (Coase 1960: 18). Therefore, the costs of the pricing system 'may in fact be less than the organising costs which would otherwise have to be incurred by the Government' (Coase 1946: 172). If this were the case, one should prefer the market over the government. In other words, since all institutions are costly, the goal cannot be to adopt a system that would be costless. We should only choose the institutions for which the benefits are greater than the costs. This idea is long-lived in Coase's work. It was already present in his discussion of marginal cost pricing in 1946, where he argued that it was only by comparing 'the results of adopting the Hotelling-Lerner solution with those of using multi-part pricing' (ibid.: 174) that it could be decided which solution should be adopted (see Bertrand and Marciano 2015 and Frischmann and Hogendorn 2015). In 1960, he wrote again: 'When an economist is comparing alternative social arrangements, the proper procedure is to compare the total social product yielded by these different arrangements' (Coase 1960: 34). Coase was indeed one of the first economists, along with James Buchanan and Roland McKean, to stress the need for a 'comparative institutional analysis' to determine which institutions should be used to organise the economic system.¹⁷

Of course, as explained in the preceding section, such a comparison between the respective costs and benefits of using different institutions should not be made

¹⁷ It is accepted that political economy should be comparative. No institution can be said to be better than another in absolute terms. Each institution has benefits and costs and it is only by comparing these benefits and costs that one may decide which one should be chosen (see Boettke et al. 2013; Ramello 2015).

theoretically, that is by using pure or abstract theories. It is only by using case studies and by making comparisons that one can decide which institutions recommend themselves:

It is my belief that economists, and policy-makers generally, have tended to overestimate the advantages which come from governmental regulation. But this belief, even if justified, does not do more than suggest that government regulation should be curtailed. It does not tell us where the boundary line should be drawn. This, it seems to me, has to come from a detailed investigation of the *actual* results of handling the problem in different ways (ibid.: 18-19; italics added).

Also, one may add, Coase used facts because they provide evidence of what individuals do.

From this perspective, the main lesson that facts tell us is that individuals do not behave as economists predict they would. In particular, they do not behave opportunistically – or, at least, as opportunistically – as economics claim. Individuals do cooperate where they are supposed – if one follows the assumption used in mainstream economics – to free ride. Or, in other words, facts teach us that individuals find private solutions to solve their problems and deal with transaction costs and, as a consequence, 'the economic system "works itself" (Coase 1937: 387; see also Coase 1988c: 17 and 1991b).¹⁸ Thus, public goods are privately produced where they should not have been produced because individuals free ride. Coase studied the lighthouses that were actually provided privately in England in the nineteenth century and explained that economists had missed this occurrence because they were trapped by their abstract assumptions and

¹⁸ This quotation comes from Sir Arthur Salter whom, as Coase recounted, Plant quoted during his seminar (see Coase 1991b) and who he also quoted in "Trends in Business Administration", Plant's Inaugural Lecture at LSE (Plant 1932: 51). Coase also noted that Dennis Robertson used the same quotation in *The Control of Industry* (see Coase 1937: 387, fn. 3).

models.¹⁹ Similarly, Coase admitted that individuals could deal with 'harmful effects' by rearranging legal rights through the market, even when there are transaction costs. Moreover, if there are transaction costs, the next solution he envisaged consists in creating firms: in certain conditions, 'it would be hardly surprising if the emergence of a firm or the extension of the activities of an existing firm was not the solution adopted on many occasions to deal with the problem of harmful effects' (Coase 1960: 17).²⁰ Even if firms are not decentralised mechanisms and involve planning, they nonetheless represent a private mechanism of coordination. As such, even when the market is too costly and if there are harmful effects which limit its efficiency, the intervention of the State is far from being a necessity. It is a solution to deal with harmful effects or with public goods which should be considered only after all private solutions have failed.

More broadly, the existence of firms provides further evidence that individuals do cooperate with each other. They are able to find alternative forms of economic organisation when markets are too costly; that was the message of Coase's first pathbreaking article on "The Nature of the Firm". Individuals are also able to cooperate across firms. This is what Coase demonstrated when he discussed the acquisition of Fisher Body by General Motors (GM) and criticised Benjamin Klein's account of what happened in this particular case (Coase 1988c, 2000). In a nutshell, Klein claimed that GM, which was being 'held up' by Fisher Body, wanted to end a commercially difficult situation by acquiring its supplier of automobile bodies. This thesis was justified by a theoretical analysis, essentially based on the assumption that managers adopt opportunistic behaviors. To put it in other words, vertical integration – and the existence

¹⁹ Coase may have been a little optimistic regarding the benefits provided by privately maintained lighthouses (see Bertrand 2008; 2016).

²⁰ This example is slightly different. As with Coase's work on radio broadcasting and the BBC, it does not really rest on an empirical demonstration that firms do find solutions to deal with externalities.

of firms – was a consequence of a desire to avoid such opportunism. In fact, Coase explained (Coase 1937, 2000) that the facts did not corroborate this thesis. Or, put differently, Klein 'misinterpret[ed] the evidence' (Coase 2006: 275). The long-term contract that existed between Fisher Body and GM was respected by both parties. It is only when they realised that it was too costly to carry on as they were that the acquisition took place. In other words, once again, opportunism – like free riding – should not necessarily be postulated as being present and normative conclusions should not be derived from an abstract and unreal assumption about human nature. On the contrary, observing what individuals do in the real world would have revealed that they do in fact cooperate. Or, a non-prejudiced approach of the interactions between these two firms would have provided evidence that there was no opportunistic behaviour.

5 Conclusion

Coase's conviction that the market pricing system is the best way to organise economic activities, a view which he learned from his classes with Plant and from discussions with Robbins and Hayek, was not only grounded in economic theory. To a certain extent, it could be said that economic theory – abstract as it can be – does not make as much room for markets and private solutions as individuals themselves do. Economic theory predicts that individuals should not cooperate or should free ride and behave opportunistically. Facts tell us otherwise. We should learn from them and use theory to generalise what facts tell us rather than trying to interpret facts by using a priori and abstract categories. This is the main lesson that Ronald Coase taught us, a lesson that is rooted in the LSE of Cannan and Plant.

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