

The demarcation of economics in Robbins's Essay and the concepts of formal and real scarcity: a key to escaping economic imperialism

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Abstract: This paper investigates whether the development of economic imperialism can be considered a direct consequence of Robbins's definition of economics and his characterization of real economic activities. Although we find that this approach does not follow directly from Robbins's definition of economics, we simultaneously find that some of his ideas have indirectly favoured its development. We show that a key element in understanding this influence is the association between real and formal scarcity that operates in his work and the synergy that the latter concept exhibits with some mathematical developments in the science. We also study the problems that are introduced when the science is demarcated by the drastic means-ends distinction that characterizes formal scarcity. Since this distinction cannot hold even from a theoretical point of view, the boundaries of economics become vague with respect to both the technical problems and to the normative judgements. Finally, we show that these problems are also related to some difficulties that have been detected within the economic imperialism approach.

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I. Introduction

Robbins's *Essay* can be considered one of the most influential books on economic science that has been written in the 20th century. This is attested by the numerous reactions (both positive and negative) and vivid debates that this work has raised since its publication – see, for example, the exhaustive study by Backhouse and Medema (2007). Furthermore, many of the issues raised by the author in his book are still alive and exerting an influence on the development of the science, as indicated by the topics debated in this paper.

One of these issues and, at the same time, one of the most controversial points of the *Essay* concerns the limits of economic science. It is usually understood that Robbins's definition of economics, together with his argument that all human behaviour has an economic dimension, has *directly* favoured the unlimited expansion of the domain of economic science that took place after the publication of his *Essay*. According to this view, the “invasion” of non-conventional areas of knowledge by economics has its roots in Robbins's definition, which helped to remove the old boundaries of the science, leaving the way clear for the aforementioned “expansionism”.

This paper investigates the extent to which this idea is correct, if at all. That is, we study whether the emergence of economic imperialism is a *direct* consequence of Robbins's definition or whether he has exerted an indirect and more subtle influence – or neither. Regarding the first question, we conclude that not only is Robbins's definition not a necessary condition for economic imperialism, as some authors have suggested [e.g. Marciano (2007)], but that it is not a sufficient condition for it either: agreeing with Robbins's definition does not necessarily lead to economic imperialism. Despite this finding, we answer the second question affirmatively: there are also elements in Robbins's works that have *indirectly* favoured the development of the economic imperialist approach. However, the influence of these elements cannot be understood without making reference to the synergy that they exhibit with some mathematical developments that took place in the science – especially regarding the application of constrained optimization problems to derive the main conclusions of economic statics. It is this synergy which has, at the very least, facilitated the relentless application of economic concepts to human behaviour that characterizes economic imperialism.

A second issue is the extent to which Robbins's arguments are valid regarding the demarcation of economics. We show that the arguments supporting his demarcation of the science are controversial and give rise to many theoretical problems. We also show that these problems are similar to the problems that have been detected in the economic imperialist approach, which reinforces our thesis about the indirect influence that Robbins has exerted on the development of economic imperialism.

II. Robbins's definition and economic imperialism: a necessary relationship?

Robbins's definition (1962:16) is usually considered imperialistic, as it brings to the forefront the concept of scarcity and also shows that this element is present in all human behaviour. In this section, we develop the point highlighted in the introduction, namely, that the definition of economics proposed by Robbins is not imperialistic in itself, and that the main element in Robbins's work that paved the way for the subsequent

development of economic imperialism is the conflation of formal scarcity with real scarcity, a consequence of his efforts to defend the scientific character of economics.

II.1. The predecessors of Robbins's definition.

To correctly understand why Robbins's definition is not imperialistic, we first have to refer to previous attempts to define economic science, as Robbins does in the initial pages of his Essay. As Kizner (1976:22-29) clearly explains, the existence of distinct subject-matter ripe for independent investigation was accepted by economists with little discussion from the very beginning of the science. Consequently, the definitions proposed by Adam Smith onwards followed a similar strategy: the science was defined as the study of (or knowledge about) subject-matter which was taken as something given – and in most cases synonymous with the concept of wealth¹. Thus, the resulting definition provides very little insight into the subject-matter of the science, and only tells the reader about the use that has been given to the term economics: to denote studies whose main object of interest is “wealth”. To put it differently, this kind of definition is similar to what logicians call a nominal, “word-thing”, lexical definition: a definition that explains “the actual way in which some actual word has been used by some actual person” – see Robinson (1965:35)².

According to the foregoing explanations, the definitions under consideration have the major shortcoming that the characterization of the science has to be postponed until the subject-matter is understood. Until this is correctly done it is not clear what the science deals with, and the definition remains incomplete. In this sense, this kind of definition requires investigating the nature of “wealth”. It needs to be emphasized that, in order to complete the definition of the science, such research should not aim at defining what the word “wealth” means – to provide a nominal word-thing definition of the term – but to ascertain what the true nature of “wealth” is, what constitutes “wealth” in reality – which, as Robinson explains, is an activity different from making definitions³.

Although this is the kind of research that is undertaken by Adam Smith⁴ in his *Wealth of Nations*, the author does not provide a clear explanation of what constitutes “wealth” in reality. In fact, this term is given diverse definitions in the different parts of Smith's

¹ For example, Smith (1776/1994: 736) defines political economy as the study “of the nature and causes of the wealth of nations”. Many other classical economists directly or indirectly hold that “wealth” is the subject-matter of economics – see Malthus (1836/1986: 21), Stuart-Mill (1848/1987: 1-2), Cairness (1873/1965:240-41), Say (1880/1964:1) Senior (1836/1965:2), Clark (1894: vii-viii).

² Notice that I am not claiming that they *tried to* produce a “word-thing” lexical definition. In fact, they might have tried to produce a thing-thing definition (see note 3) of economics. The key issue is that they actually failed to produce it because their definitions were limited to reporting what had been understood by economics up to the moment.

³ Using Robinson's (1965: 149) terminology, they should not ask a question about the word “wealth” but ask a question about the thing “wealth”. As this author points out, though both types of questions have been subsumed into the same name (definition) – see Robinson (1965: 12-16), they have different purposes. Moreover, as Robinson (1965: 171-178) goes on to explain, over time the search for answers to the second type of question has included several kinds of intellectual activities, which traditionally have been subsumed under the (false, according to Robinson) name of “thing-thing” definition.

⁴ It is clear that the work of Smith has the purpose of investigating the nature of real wealth – e.g. see the passages where he criticizes the way that wealth is commonly understood (Smith 1776/1994: 273, 371, 456ss). Even Robbins (1998: 128-129) describes the work of Smith as “(...) the work of a profound thinker anxious to discover the nature of things”.

book⁵. As can be inferred from Cannan's explanations (1903:14-31), these different definitions give rise to conflicting conceptions of wealth and this is where the distinction between productive and unproductive labour has its roots. This distinction is correctly designated by Kizner (1976:30) as the starting point of a lasting debate among economists about whether immaterial "utilities" should be included under the heading "wealth" or not. The problem is that, although all authors attempted define "wealth", the definitions they proposed were not of the same nature⁶.

Thus, on the one hand, some authors have mainly tried to offer a real definition of "wealth" (if this kind of definition exists, see note 3), that is, authors who really inquired into the nature of the subject-matter of economics. These authors invariably concluded from their research that actual wealth is also composed of nonmaterial goods or utilities – see, for example Say (1880/1964:119-127) and Lauderdale (1819:56-57). The problem is that the inclusion of nonmaterial goods within the scope of economics seemed to be difficult to reconcile with its scientific character – which was firmly defended by (almost) all classical economists. This happened mainly for two reasons: (i) they introduced some vague elements into the language and concepts of economics (i.e. what is meant by an increase, or decrease, in wealth); and consequently, (ii) they made studying the causes of the wealth of nations more difficult as well as measuring the changes in the wealth of a person or a country in empirical studies. Even worse, the limits of the science became blurred, because in this case the science of wealth would have to cover subject-matter from other sciences, and these kinds of definitions were accused of being imperialistic – on this point, see Maths (1836/1986:23), and McCulloch's criticisms of Lauderdale's definition of wealth in Kizner (1976:30-31).

On the other hand, other classical economists who were aware of these problems lost sight of the necessity to investigate the nature of "wealth" to close the definition of the science, and centred their attention on preserving the scientific character of their studies. Given the need to eliminate ambiguity from concepts in order to successfully pursue science, the definition of wealth and other elements should be as accurate as possible. As Robinson explains (1965:68-69), this is done by stipulating what it is going to be understood by "wealth"⁷. Thus, these definitions of wealth were not of the same kind as those of the previous group, for they were nominal, not real, definitions. In this sense,

⁵ That Smith is not able to clarify the nature of wealth is shown by the fact that Malthus (1836/1986: 33) holds that, though *The Wealth of Nations* contains no formal definition of wealth, it is clear that the author understands it as being "material objects". However, Smith defines wealth at least in the following alternative ways: "power of purchasing labor" (1776/1994: 34), "the exchangeable value of the annual produce of the land and labour of the country" (1776/1994: lxii, 277, 367), "the accumulate produce of the improvements of agriculture and manufactures (1776/1994: 754).

⁶ Thus, it was not possible to reach an agreement since, although all the authors believed that they were trying to do the same thing, this was not really the case. This kind of confusion can even be found in works by the same author. For example, take Cannan (1928:1): here, he argues that the question "what is wealth?" is exactly the same as "what is it *most convenient to take as* the subject-matter of economics?" [see, emphasis added]. On the other hand, in Cannan (1903:1), he holds that "the first problem that confronts us is therefore the question of the nature of wealth that is the subject of production and distribution". The first kind of question is a word-thing stipulative definition, whereas the second kind of question is a thing-thing or real definition (see note 3 and the text below).

⁷ This does not mean that they define wealth in a completely arbitrary way – without taking into any consideration the real attributes of wealth – but that they artificially introduce limits by focusing their attention on some characteristics of real wealth, generally for the sake of clarity either in the language used or in the scientific concepts developed [see Stuart-Mill (46-53, Malthus (1827/1986: 4; 1836/1986:21-23 and ss.)].

the authors who adopted this strategy usually agreed on reserving the term “wealth” to mean “material products” – see Malthus (1827/1986:234; 1836/1986:33-34) and Stuart-Mill (1848/1987:9 and 48). The adoption of this convention had at least two main advantages. First, it made the development of the science possible because, by removing the ambiguity introduced by real definitions, it became possible to establish precise language, as well as to accurately measure the changes in the wealth of a country – both necessary conditions for economic science, as we have seen. In addition, if wealth was understood as “material objects”, the limits of economic science seemed to be clear, since it was possible to trace an unambiguous division between the economic and non-economic areas of interest. Human behaviour could easily be divided into two separate domains (the economic and non-economic), according to whether the actions of the person were conducive to the production of the “material goods” that counted as “wealth” or not – see Kizner (1976: 21). This also helps to clarify why these earlier definitions of the science were apparently non-imperialistic.

II.2. Robbins’s definition of economics and its implications.

Obviously, each research strategy produced a different view of economics. Robbins examines the latest generation of the second group of definitions in the initial pages of the *Essay*. Here, Robbins detects a major shortcoming in the resulting definitions of the science, which is a consequence of the stipulation imposed on the meaning of “wealth”. As the meaning of this term is adopted by economists mainly to facilitate the scientific character of their studies, the restrictions that this convention imposes on the definition of economics are found to be arbitrary as soon as they are subjected to scrutiny. First, the original definition of the science becomes a kind of tautology: economics is the study of wealth, which, in turn, is what is defined by economists. Hence, as Robbins points out (1962: 4), the definition of the science becomes incapable of describing its ultimate subject-matter. Second, the resulting division between the “economic” and “non-economic” spheres is found to be arbitrary because, as Robbins explains (1962: 5-8), if this definition of wealth is taken literally, the most relevant part of the generalizations of the science fall outside the area of economics.

Having detected these flaws, Robbins breaks with this tradition of taking for granted the subject-matter of the science, and reaches his definition by taking the alternative route of analyzing what the main elements are of any problem studied by economics. The resulting definition improves upon its predecessors because it does not leave unresolved the problem of understanding the subject-matter of the science (human behaviour as affected by scarcity). Regarding this point, as Robbins himself explains (1962:14) “every act which involves time and scarce means for the achievement of one end, involves the relinquishment of their use for the achievement of another. It has an economic aspect”. For this reason, the definition offers a better grasp of real economic problems than previous definitions and shows that the economic dimension of any action does not hinge on the materiality of the means – thereby it resolves the futile discussions on the material and non-material dimensions of wealth, i.e. on the limits of the subject-matter of economics. However, the aforementioned advantages are hidden by the fact that the definition does not clearly distinguish between the subject-matter and the method of the science. In fact, both elements appear mixed in the definition, because the scarcity dimension of human behaviour is described in terms of the categories used by economics to analyze it (ends and means) [see Knight (1940:464-465)]. As a consequence, real scarcity (the subject-matter of economics) and formal

scarcity (the way real scarcity is studied by economics) are confounded – see section II.3 for a detailed explanation of these points. This can be a reason why it is usually considered that this definition widens the scope of the science, while it really expands the subject-matter of the science as it had been understood up to the moment.

According to this explanation, it is clear that Robbins is not *necessarily* imperialistic. In support of this, notice that Robbins considers that the main advantage of this definition is that it improved our understanding of the subject-matter of the *existing* scientific generalizations [see Robbins (1962:1-3, 6-9 and 22)], not that it facilitated their extension to other areas of research. In fact, with the exception of war [see Robbins (1962:7)] there is no other possible excursion outside the “traditional” fields of economics proposed by Robbins. Moreover, the main consequence of this definition is that, *in so far* as scarcity affects all human behaviour, this has an economic aspect or dimension⁸ – Robbins (1962:17). However, stating that any human action has an economic dimension is not imperialistic per se, for this does not prevent the recognition that it has social, ethical, or political dimensions [e.g. see Bye (1939:628-632), an author who agrees with Robbins’s definition]; and the existence of an economic dimension in human action is a point that both defenders – Hirshleifer (1985:53) – and opponents – Daly (1945:169-170) – of Robbins’s definition find no difficulty in accepting. An additional piece of theoretical evidence that reinforces our arguments is supplied by the collective work edited by Radnitzky and Bernhold (1987): it is surprising that in a book entirely devoted to “Economic Imperialism” no reference to Robbins is done – if this approach *necessarily* followed from Robbins’s conception of economics, one would have expected to find at least one reference to this author. Finally, and more relevantly, the term “economic imperialism” is already employed by Souter, a fierce critic of Robbins’s conception of economics, when referring to his own work. And the description that Parsons (1934:512,522,535,545) does of Souter’s “economic imperialism” fits very well the features of the modern approach to economics that has inherited this name, as we will see in the following.

II.3. The main characteristics of economic imperialism.

It is not the fact that all human actions have an economic dimension that makes economics an imperialist discipline, but the relentless application of the “economic method” to analyzing all human behaviour. In other words, the central element of economic imperialism holds that what distinguishes economics as a discipline from others is not its subject-matter, but its approach, as Becker (1976:5) states. This “economic method” consists in the deduction of meaningful predictions about different kinds of human behaviour from the repeated application of a set of specific and restrictive assumptions about human beings. The core assumptions are the three stated by Becker (1976:5-6), namely: (i) individuals are rational maximizers, in the sense that their behaviour is forward-looking and consistent over time, and they correctly anticipate the uncertain consequences of their actions; (ii) individuals have stable preferences, which do not refer to market goods or services, but to underlying objects of choice that are produced by each household using these market goods and services, their

⁸ It is worth emphasizing that this only implies that no human action can be *a priori* discarded as the possible object of study of economics, since all of them have an economic dimension. For this reason Robbins holds that the discussions concerning what kind of actions must be studied by economics were futile [Robbins (1938:344)].

own time and other inputs like human capital⁹; (iii) there are markets that coordinate the actions and constrain the desires of the participants with different degrees of efficiency by providing prices and other instruments that allocate scarce resources within society.

Some authors add other “secondary principles” to these core assumptions. The most relevant ones are as follows: (i) incentives determine behaviour, so people do not act randomly but react systematically and predictably when they consider a possibility for action to be more advantageous or more disadvantageous; (ii) incentives are produced by preferences and constraints which are strictly distinguished, thus, behavioural changes are attributed to observable and measurable changes of the opportunity set determined by the constraints and not to non-observable and non-measurable facts [see Frey (1999:5-6)]. This latter principle is crucial, for it captures the way in which human behaviour must be explained by the “economic method”, if we wish it to be scientific: changes in human behaviour have to be attributed to observable and measurable changes of the opportunity set determined by the constraints. No resort to changes in preferences can be made, because these kinds of explanations are ad hoc, cannot be empirically verified, and hence are meaningless and unilluminating [see Frey (1999:6), Becker (1976:11-13)]. For this reason, the “imperialist” economist never uses preferences to justify an observed change in behaviour, but instead continues to search for the subtle forms taken by prices or incomes to explain it [Becker and Stigler (1977:76)].

As a consequence of this research strategy, the resulting explanations of human behaviour are stated in a language familiar to economists, that is, in terms of the traditional economic variables: prices, income, goods, demand functions, elasticities, etc. This is the distinctive trait that characterizes economic imperialism, for what the application of the “economic method” really does is reduce the explanations of very different kinds of human behaviour to economic categories or concepts – that is, in terms that were developed early on in the history of economic theory [see Hirshleifer (1985:53) or Posner (1987:1-2)]. As it is clear that this procedure may generate distorted descriptions of human actions [see the examples Becker and Stigler (1977)], advocates of the “economic method” hold that it must be judged in terms of its predictive power, not in terms of the descriptive realism of its assumptions or explanations – see Becker (1993:402-403) and McKenzie (1983:15-16 and 31). This not only protects the theories and their explanations against criticism, but also invests some fictions of economic theory with an aura of authority that may tempt the researcher into introducing them into other sciences – see section II.4 below.

Summing up, it can be said that economic imperialism is characterized by a dual approach: on the one hand, it is reductionist in terms of the explanations provided by the theory; on the other hand, it is “expansionist” regarding the scope of application of these theories. That is, the interdisciplinary character of economic imperialism does not affect the research method, but does influence how the method is applied to many different topics [see Frey (1998:16)]. Clearly, this does not necessarily follow from Robbins’s definition¹⁰. If we conclude that Robbins’s definition is not necessarily imperialistic, we

⁹ Preferences are defined over fundamental aspects of life (health, prestige, benevolence, envy, etc.) that do not always bear a stable relation to market goods and services, and are assumed not to change substantially over time or even between persons – see Becker (1976:5).

¹⁰ Even more, Robbins (1939:120-121) admits that logically consistent theories can produce false explanations of facts.

have to ask why it has usually been considered in this way. Two reasons may explain this. First, it is its contrast with older definitions which make it seem imperialistic. Recall that the previous definitions imposed a limit on the scope of the science by dividing human activities into two independent spheres. Although this division was mainly based on stipulation and not on real grounds — and, in this sense, it was to some extent arbitrary [Robbins (1962:6)] — breaking with the established limits of economic science may give the impression that the definition necessarily advocates the invasion of other research areas. In addition, this impression may have been favoured by the fact that some of the most relevant proponents of economic imperialism have explicitly agreed with Robbins’s definition – see Becker (1976:8), Hirschleifer (1985:53) and Stigler (1984:301-302).

II.4. Robbins and the promotion of economic imperialism.

Having showed why Robbins’s definition is not necessarily imperialistic, a different question arises regarding whether the author’s views about economics paved the way to economic imperialism (intentionally or unintentionally). This issue is ultimately related to the conflicting positions regarding the limits of the subject-matter of economics that Robbins defended in the *Essay* and in subsequent publications. This point has already been addressed by Marciano (2007, 3-4); although no limit seems to exist when considering the nature of the issues that economists have to deal with, a clear limit to the subject-matter of economics appears when considering the kind of propositions involved: ethical or normative propositions, and value judgements are excluded from its domain.

Robbins reached these conclusions because he was firmly convinced of the scientific nature of economics [Robbins (1981:2)], and thus, he argued that economic theories should be constructed according to scientific criteria. For this reason, he was anxious to separate economics and ethics, purging the science of value judgements, and to offer a demarcation criterion which excluded from the domain of scientific discourse all exercises such as Pigou’s interpersonal comparisons of utility, which Robbins considered to be “extra-scientific” – see O’Brien (1988:23-24).

With this intention, Robbins characterised his definition as being analytical and used it for classification – to separate the “elements” or aspects of human action that lie inside economics (and are amenable to scientific explanation), or outside (and are not subject to scientific investigation). By studying the four characteristics that determine the economic aspect of any human action, Robbins concludes that scarcity — the economic aspect of human behaviour — is not a consequence of the independent existence of ends or means, but is the result of the relationship that these two elements of human action exhibit – see Robbins (1962:12-16). Thus, these elements of human behaviour are not relevant to economics in themselves, but it is their relationship which is studied by economic science – see Robbins (1962:38). The recognition of this fact helps us to understand that the concepts of economic theory are relative and purely formal in character – see Robbins (1962:46n).

This implies that, to capture the scarcity (or economic) dimension of real world problems, they have to be framed in terms of ends and means, which in turn requires that these concepts are clearly identified and distinguished in theory. Additionally, in order for these human problems to be illuminated by economic science, those elements

that play the role of ends in the theory must not only be ordered but also weighted in such a way that gradual comparisons among them are possible – otherwise the economic problem would not be relevant in formal terms¹¹. It should now be clear that these are formal requisites for capturing in theory the scarcity dimension of human action, and not real conditions for the emergence of scarcity. This only requires that a resource that is limited in quantity can be put to different uses – that is, that the things we want to do are incapable of complete fulfilment, so that choice and sacrifice appear [see Robbins (1934:90) and (1962:14,30). However, to Robbins — who was clearly influenced by Hicks’s (1981) development of the concept of utility, and who also held a formal view of human beings that was almost certainly adopted from Wicksteed, as O’Brien (1988:25) explains — the former are real, and not only formal, requirements: everyday experience shows that individuals *do actually* arrange their preferences in an order. Thus, this is one of the basic postulates of the science which are applicable whenever the conditions that give rise to economic phenomena are present, and that do not require controlled experiments to establish their validity, since they have only to be stated to be recognised as obvious [Robbins (1962:79-80)]. This way of thinking implicitly associates real scarcity with the way *it is represented* in theory, so the formal characteristics that serve to represent scarcity in the theoretical constructions are considered to be attributes of real scarcity [Robbins (1962:13-14, note 1)]¹².

The influence that this association between real and formal scarcity has exerted in the development economic imperialism cannot be understood without referring to the subsequent mathematical developments in economics advanced in Samuelson’s seminal work *Foundations of Economic Analysis*. First, it was Hicks (1939/2001:89ss) who showed that constrained maximization problems can be used to analyze the main problems of choice in economics: the theory of consumer and firm behaviour. In this kind of mathematical formulation the economic problem is represented as Robbins’s formal view of scarcity demands, at least at first glance (see section III below): the “ends” (objective function) and the means (constraints) seem to be clearly

¹¹ As Knight (1934:232n) explains, the indifference surface is indispensable if comparison and choice are to be used in the sense of cause and effect to explain behaviour. So, for a problem to be relevant to economic theory, it is not only required the existence of a hierarchy of ends, but also the possibility of quantifying how much of one end a person is willing to give up to obtain or produce more of another – the Hicksian marginal rate of substitution [see Hicks (1981:8-10)]. Though Robbins (1962:56) himself recognizes that “value is a relation, not a measurement”, he associates valuation with substitutability of different goods (1962:75). However, it is possible to have hierarchically ordered ends for which no rates of interchange or sacrifice among them (or among goods) can be established – take the example of the lexicographic preferences. In this case, an economic problem would still exist, though being a trivial one: the means should be allocated to reach the most preferred end that remains in the list – this is just the case explained by Polanyi (1994:100) who, confounded by the association between formal and real scarcity, erroneously consider that it represents a case of insufficient, but not scarce, means. But notice that the economic science could not be of much guide, for means could not be redistributed to produce a combination of ends that is most preferred by the agent. Regarding this point, Rivett (1955:218-219) correctly explains that the problems of economy can take many forms and “(...) all problems of economics are problems of economy, but not all problems of economy are illuminated by economics (...)”.

¹² The confusion between real and formal scarcity is at the heart of the disagreement between Cannan (1932, 426-427) and Robbins (1962:11) on the scope of the science, and it is the reason why both authors offer correct arguments but cannot reach an agreement. On the one hand, Robbins correctly defends that the decisions regarding the use of time have a real economic aspect, since they imply giving up alternatives (real scarcity). On the other hand, Cannan also correctly argues that these are problems of life, in the sense that not all of them can be fruitfully illuminated by economics because they cannot be framed in terms of formal scarcity.

differentiated. Subsequently, it was Samuelson (1983:21-23,350) who demonstrated, among other things, that constrained maximization (minimization) problems can be systematically used to derive meaningful theorems in economic statics. Hence, both works complement each other, for Samuelson put the formal model to work and obtained refutable results, whereas Robbins provides the link between these formal constructions and real scarcity, which he had previously demonstrated to be the economic dimension of real problems. In fact, many other points where the two works reinforce each other appear¹³, so that it can be said that there exists a synergy between them: the technical methods used by the economists to reach their conclusions – which were updated by Samuelson – are dressed with a real, and in many cases anthropological, content – which was the legacy of Robbins. To put it differently, the mathematical formalization of the models preserves the scientific character of economics while the anthropological explanations indirectly invest economic models with the character of formal theories of human action.

The first consequence of this synergy is that economists do not give the impression that they are doing something mechanical or technical when solving their mathematical models. Instead, these mathematical models are understood as anthropological (or real) explanations, so economics is raised to the level of (scientific) anthropology – see Hirshleifer (1985:53). This explains the trend followed by economic research and that is denounced by Coase (1978:207): “(...) there are, at present, two tendencies in economics which seem to be inconsistent but which, in fact, are not. The first consists of an enlargement of the scope of economists’ interests so far as subject-matter is concerned. The second is a narrowing of professional interest to more formal, technical, commonly mathematical, analysis”. In addition, this view of economic models may lead the researcher into making the mistake of raising some economic fictions to the level of anthropological theories, which is a very similar kind of error to the one pointed out by McKenzie (1983:5-7). The most prominent case is the *homo oeconomicus* construction, which is considered by Robbins to be no more than a mere expositional device [Robbins (1962:94-99)], but that some authors consider correctly depicts human beings – see Stigler (1982:24-26, 35)¹⁴.

This synergy reinforces the idea that “choice” is the selection of means, not of ends – see, for example Knight (1934:228). And, once choice takes this specific meaning, scarcity becomes the only element that is relevant in the act of choice. Then, economics

¹³ Other complementarities between the two works can be signalled. The most obvious is the defence of the ordinal utility approach to obtain the relevant results of the theory of demand [see Samuelson (1983:4, 97-98) and Robbins (1962, 84-86)]. Also, Samuelson (1983:103) explains that constrained maximization problems reach the same optimal solution either by maximizing a given end subject to an expenditure constraint, or by minimizing the cost (or expenditure) of reaching a certain goal, which parallels the two different definitions of the act of “economizing” that appear in Robbins writings: (i) the rational disposal of goods [Robbins (1962: 91-92)]; (ii) the securing of given ends with the least means [Robbins (1962; 145)], which in other works is identified with the “economic motive”(the desire to increase his power to satisfy ends in general) [Robbins (1939:115-119)]. Finally, Samuelson (1983:4, 20) rigorous explanation of “meaningful theorems” and “qualitative predictions” (i.e. predictions about the sign or direction of the change in the variables in response to changes in parameters) reinforces the idea defended by Robbins [(1962:99-101,108-112), (1981, 3-4)] that the explanations provided by the economic science are mainly qualitative in character.

¹⁴ There is no consensus among the defenders of economic imperialism regarding this point. Some authors, like Frey (1998:7-8), and especially Stigler, cite self-interested behaviour as being one of the basic hypotheses of the economic approach. At the other extreme, Becker (1993:386) maintains that preferences are not necessarily egoistic, but include a wide range of motivations.

becomes the science of choice [Mundell (1968)] and consequently, “economizing” becomes the only criteria to choose. In addition, as in the formal models where “economizing” is reduced to maximizing a certain quantity, the sense of this term is further reduced to mean “maximization” (or “minimization”). Finally, this also determines the way “rational behaviour” is conceived, just like solving a constrained maximization problem. That this view of the act of “economizing” is strongly implanted in economic theory is shown by the fact that Polanyi (19 :91-103) designates it as the “formal definition” of economics, and separates it from the “substantive definition” of economics, which is related to the different ways in which human beings obtain their subsistence.

These two consequences shed light on the reductionism that characterizes economic imperialism: “rational” actions are formally represented and explained by constrained optimization problems, whose mathematical elements are easily identified with economic concepts. Because the formal way of representing the problems is confused with the real interpretation, the resulting explanations are understood to be descriptions of reality, i.e. descriptions of actual human beings – or anthropological theories – and not mere analogies. It is clear that the association between formal and real scarcity at least facilitates the development of the economic imperialist approach; though other elements not considered here may have been more influential.

III. A critical inspection into the concept of formal scarcity.

Our previous study has revealed that the assimilation of real scarcity with formal scarcity is a keystone element in Robbins’s work. Of the two requirements of formal scarcity, we will discuss in this section the clear-cut means-ends distinction. This condition is of special interest because it is at the heart of a series of associations that take place in the thought of Robbins. It is clear that, when Robbins explains the scarcity aspect of all human behaviour, the “ends” are equivalent to the “purpose” of the action – see Robbins (1962:93). In addition, as there is no really an “economic” purpose, for the economist this element of human action simply takes the form of scale of valuations [Robbins (1962:30-31)]. But then, any question either about the reasons for having those valuations, or about their “correctness” belongs to the psychological or ethical sphere respectively – see Robbins (1934:98-101). Thus, as a result of this process, all value judgements are concentrated in the “end” category of human action, which leads to conclude that discussing about what is good or bad in the world of relative valuations pertains to ethical judgements. And since this kind of judgements are normative, by extension any discussion about what it “should” be done is associated to the sphere of ends, and it is also excluded from the economic (or scientific) analysis – see Robbins (1927:177; 19). This way of reasoning leads to the following association of concepts: ends→ value judgements→ ethical judgments→ normative propositions [see, for example Robbins (1981:3-4)]. To this association it must be added the identification of plurality of ends with alternative uses that also takes place in the thought of Robbins, as signalled by Souter (1933:380) – who considers that is illicit.

It is worth devoting some space to analyzing if this drastic distinction holds even from a theoretical point of view for two reasons. In the first instance, because it will serve to verify whether the foregoing associations, which are the basis of the strict limits that Robbins imposes on the propositions of economics, hold in theory. The study of this categorization is also interesting because it has been inherited by economic imperialism.

Recall that, as we have seen in the previous section, this approach requires of this drastic distinction, since it only admits as valid those explanations that attribute changes in human behaviour to changes of the opportunity set determined by constraints – the means.

III.1. Evaluating the drastic means-ends distinction.

Let us begin by analyzing the drastic means-ends division that Robbins formally establishes and associates with real scarcity. This drastic division has been already criticized at least by two different authors on two grounds – see Kizner (1976:133-137) for a complete review of the criticisms. On the one hand, Kaufmann (1933:383) correctly points out that the end or purpose of a given human activity is the means to a further end or ends; so he questions which end or ends of the series must be considered the central point of the investigation. On the other hand, Rivett (1955:219) criticizes the distinction on theoretical grounds: although it is possible to distinguish between ends and means in theory, anything that can be thought of as a means can also be thought of as an end (except the ultimate end).

In fact, Robbins himself sees no difficulty in postulating the existence of alternative ends which are the “terminus of particular lines of conduct”, while simultaneously defending the existence of an ultimate end that unifies the purpose of the activity [Robbins (1962:15n)]; the former being the proximate and the latter the final end of behaviour. Although Robbins does not explicitly refer to this, it is clear that when writing this paragraph, he had in mind the theory of consumer behaviour – which, being a constrained optimization problem, exhibits a clear synergy with Robbins’s concept of formal scarcity, as we saw above. This opens up a different way of examining his means-ends categorization: with the aid of the theory of consumer behaviour, we can examine whether the different elements of the theory perform a clear role of “means” or “ends”.

In this sense, at one extreme, the “utility” performs the role of the final end. The purpose of the action is given by the maximization of this unspecified end, and which remains unspecified, but that makes the choice coherent, exactly as Robbins demands. At the other extreme, there are means with alternative uses, which in this theory are represented by money (or income): as this is the element that has to be allocated between the different goods and, at the same time, is limited in its quantity, it is scarce. Exactly between these extremes, we find the final elements of the theory, goods, which play the role of intermediate ends. To see this, notice that, on the one hand, they represent the terminus of the act of choice, so they are not, properly speaking, means. On the other hand, neither are they the final end, for they are required in order to produce the highest possible level of “utility”. Thus, they play the role of intermediate ends: they are the immediate end of the act of consumption, which is a means to achieve the final end represented by utility. Furthermore, in the model these “intermediate ends” are the same as the “uses” of money, because the goods that the consumer can buy are the different uses that the money can be put to, which is the association that Souter rejected.¹⁵

¹⁵ This is not the place to fully elaborate this point, but I will at least offer some suggestions concerning the distinction between the “uses” of a resource and the “intermediate ends” of action, which has to do with the social and individual dimensions of scarcity. On the one hand, the “uses” of a resource can be understood as the different ways in which it can be employed by the different members of society: these

Moreover, precisely because goods do not play a rigid role in this theory, it can be reformulated in the terms proposed by Becker (1965). In this case, the role of the scarce resource is essentially performed by time. This is the basic resource that can be allocated either to produce income or to produce different “final goods”. In addition, the money earned by sacrificing leisure time is the other scarce resource that has to be used to buy the different market goods. Henceforth, both income and market goods are the terminus of two choices that have been taken at different stages (although they are simultaneously specified in the model), and play the role of intermediate ends. Finally, by using these goods and the remaining leisure time, the consumer produces the ultimate goods. Once more, these “final goods” play the role of intermediate ends, for they are the immediate end of the use of leisure time and market goods, but they are produced in order to obtain an ultimate end, once again, utility. Once more, the “uses” of the resources (time and money) are also confounded with the “intermediate ends” of the individual chooser (production of money, acquisition of market goods, and production of the ultimate goods). Notice that, although in the Beckerian theory of consumer behaviour the means-ends distinction is more intricate than in the classical one — because there are more elements that perform the role of intermediate ends (at least money and market goods) — it fits Robbins’s conception of real economics better.¹⁶

Thus, even from a theoretical point of view, a clear-cut means-ends distinction cannot be established, because some elements of the theory necessarily play an ambivalent role. Although this problem may not be relevant to the construction of particular models, it affects to the demarcation of the science, as shown in the following section. On the other hand, if the distinction between ends and means is not as neat as some of the defenders of economic imperialism assume, their explanations are not as “scientific” as they believe. Notice that, if some of the elements they consider belong to “constraints” or “restrictions of nature” are really the outcome of the chooser’s previous decisions, then when they resort to them to explain differences in behaviour they are unconsciously invoking differences in preferences. Thus, they cannot escape from the kind of “unscientific” explanations that they criticize – at least when explaining differences in behaviour between people.¹⁷

ways can be objectively determined (by technique, like goods) or subjectively determined (dependent on the chooser’s will, like time). On the other hand, the “intermediate ends” are those ways of employing a resource which a particular chooser is interested in; or to put it differently, those “uses” that enter into his/her utility function. In formal models both are confounded at the individual level because a “universe” of goods (or “uses” of resources) is first pre-specified, and then it is assumed that all these goods enter into the utility function of the chooser; however, in reality the individual chooser selects the goods (“uses”) that enter into his/her utility function, so only a subset of the existing universe of goods (“uses”) is normally considered by the chooser to be “intermediate ends” for his/her ultimate end

¹⁶ Notice that this formulation of the theory of consumer behaviour has many points in common with Robbins’s ideas about economics. First, the original scarce resource is immaterial (time), which reinforces the idea that scarcity is not due to the materiality of means. Second, the usage of time to produce income is merely instrumental to obtain other ultimate ends, exactly as Robbins (1962:31) holds. Third, the Beckerian approach brings into the light the opportunity costs implicit in the problem of consumer behaviour – and according to Robbins (1934: 2) costs in economic theory include the cost of surrender alternatives. Finally, this way of framing the problem of consumer demand makes it clear that the problem of assigning leisure time has an economic dimension and, as I have explained elsewhere [Falgueras-Sorauren (2007:170-171, note 10)], this is the sound argument that underlies Robbins’s criticism of Cannan’s conception of economics.

¹⁷ The case is especially clear if we consider instrumental variables like “income” or “human capital”, which are taken to be “external” to the actor. At a given moment, the value that these variables take can

III.2. Some consequences of the failure of this categorization.

Let us now briefly examine the consequences of the failure of the clear-cut means-ends distinction on the limits imposed on economic propositions by Robbins. We will also see that these issues are related to some criticisms that are raised against economic imperialism.

Notice that, when the “intermediate ends” are “means” to other (alternative) ultimate ends, the choice of these (intermediate) “ends” becomes an economic problem from a formal point of view. To put it differently, economics is concerned not only with the choice of means but also with the choice of ends since, in the final instance, it has something to say about ends. This is even indirectly recognized by Robbins (1962:152) when he holds that economics makes it possible to select a system of ends which are mutually consistent with each other – i.e. that can be simultaneously achieved (what he calls “consistency of achievement”). By bringing to light what Myrdal (1958:206) calls the “by-effects” generated by the implementation of a given end, economics provides us with additional information that helps in decisions regarding whether it is worth pursuing that end; that is, economics provides advice and, hence, plays a normative role¹⁸. This clearly breaks the chain of associations that takes place in Robbins’s thoughts at the normative-ethical link. In fact, this association is false because, as Souter (1933:402) explains, normative is not equivalent to ethical, and economics can have normative, but not ethical, content, at least in practice – as the very idea of “consistency of achievement” defended by Robbins shows.

Furthermore, the existence of intermediate ends implies that there are certain economic means that can be taken to be ends and, thus, it is possible to speak of “economic ends”. Robbins denies this possibility because, in his initial characterization of scarcity as the basic economic element, he is thinking of individuals and, at this level, of specific economic ends. However, he remains silent as to the identity of the choosing agent who is affected by the economic problem. As Buchanan (1964:215) points out, this may be because he is aware of the fact that economic problems affect both individuals and society. When Robbins shifts from this individual level to the social level, he is forced to recognize that there can be ends that from a social point of view can be regarded as economic – see Robbins (1939:115-118).¹⁹

Thus, at least from a social point of view, there can be “economic ends” that are intermediate to other ends, and which form what Akerlof (1984:3) defines as “economic issues”. In fact, attaining full employment or price stability and reducing output

be considered to be exogenous, but it is in fact the outcome of previous decisions by the agent. Therefore, the differences between people regarding the values of these variables ultimately depend on the differences in preferences.

¹⁸ It is normative because “consistency of achievement” is only obtained with the help of economics, so it is not an empirical fact that precedes the theory. In addition, note that giving advice is always a normative task, for it can be taken into account or not. The very examples that Robbins (1962: 153-158) proposes serve to illustrate this point.

¹⁹ In these pages Robbins even recognizes that these ends can be different from the ends of the individuals composing this society, which is a clearer sign that there can be “economic ends”. Even more, as Rivett (1955:227-228) points out, if the term “economic end” is to be used as Robbins does in this text – to describe all ends that are also means to other ends – then any end at all, except ultimate ones, can be qualified as being “economic”.

fluctuation have been considered goals of macroeconomic policy – see Prachowny (1994). Hence, in many cases, it is precisely ends that economists are interested in, as Daly (1945:169) points out as an objection to Robbins’s intellectual position.

Additionally, the existence of intermediate ends also implies that economic and technical problems cannot be so easily distinguished from a formal point of view. This is immediately true from a theoretical point of view. As the “intermediate ends” are “means” to a unique final “end”, the constrained maximization problem that formally captures the problem of scarcity cannot be distinguished from a technical one. For this reason, the economic problem of consumer behaviour is indistinguishable from a technical problem, which is exactly the criticism raised by Buchanan (1964:216). In fact, although the technical character of these formal theories can be disguised when they are developed in abstract terms, it becomes clearly visible when they are applied to the solution of social economic problems. In this case, they are indistinguishable from technical problems.

In fact, social economic problems usually become technical problems from a theoretical point of view, such that economics becomes a technical science. Notice that, in order to provide guidance on practical issues, the elements of the formal theory have to be specified, so that the intermediate means and resources are fewer as Myrdal (1958: 209) explains. Thus, the ultimate goal must be specified in a particular utility function, as well as the “intermediate ends”, whether they are “economic” or not, and also the resources for attaining these intermediate ends. Even though we use the same technical apparatus to solve this problem as well as to derive our theoretical and abstract conclusions, the reduced number of possibilities that operate in the mathematical constructions brings the technical problem more clearly to light. For this reason, using Buchanans’s (1964:216-218) terminology, when the arguments in the (social or individual) utility function are specified, choice becomes mechanical and finding the formal solution of this practical economic problem becomes a technical task – even Robbins (1962: 153-154) describes this kind of knowledge as a “technique”.

Finally, all these problems are closely related to the criticisms raised against economic imperialism. As this approach is eminently practical, all the elements of the theory are completely determined and specified in advance – the “goods” that enter into the utility function, the elements of nature that form constraints, etc., see McKenzie (1982:19-24) – such that the problems studied become technical, not economic, problems. For this reason, these theories are useful tools for predicting behaviour but, at the same time and because of their technical character, they produce distorted explanations of human behaviour. As Mckenzie (1982:96) states, although we gain predictive (or practical) power with these theories, we must ask ourselves how much knowledge about reality we really gain by employing them.

Summing up, the existence of a category of “intermediate ends” even in formal models (or in what we have called here “formal scarcity”) is the common element that underlies many criticisms that have been raised against Robbins’s conception of economics, on the other hand, and against the economic imperialist approach, on the other. When we apply these models to provide guidance in practical problems, all their elements must be specified and cannot remain abstract. But when this is done, the technical character of the theories, which had been disguised by the association between real and formal scarcity introduced by Robbins, becomes visible. Since, in addition, finding a solution

to these technical problems usually implies working out the optimal values of the variables that play the role of intermediate ends in the models, the advice that economists derive from this work affects to “ends” and take the form of normative propositions – see Ellis (1950), who holds that these economic optima may lead to political or ethical, not economic, decisions. As a result, the boundaries of economics – as defined by Robbins – become vague, and the clear demarcation of the questions that lie inside and outside economics established by this author becomes difficult to defend. Since the main interest of the models developed by the economic imperialist approach is empirical, they share foregoing problems, as it is shown by the criticisms raised against them. Note, however, that all these problems are only related to theoretical economics, since they are related to formal scarcity and not to real scarcity.

IV. Conclusion

Taking the above into account, we consider that Robbins puts forward a good definition of economics; compared to the preceding definitions, his offers a good account of the nature of the subject-matter of the science: human behaviour as affected by scarcity. Without fear of exaggeration, it can be said that no other subsequent definition has significantly improved upon this description of the subject-matter of the science. We have also seen that neither this definition nor its basic direct implication – that every human action has an economic dimension – necessarily results in an “imperialist” conception of economics.

Despite this, our study also reveals that Robbins has indirectly favoured the development of economic imperialism. Curiously, the element that has favoured the “expansionism” of the science is not associated with his innovative definition of economics, but with his somewhat conservative defence of the limits of the discipline. In his attempt to protect the scientific character of economics, he considers the characteristics of formal scarcity as being attributes of real scarcity, thereby associating formal scarcity with real scarcity. The synergy that this formal representation of scarcity exhibited with the subsequent mathematical developments in economics has assisted in reading “real” content into them, and therefore has helped economists to view our scientific analogies as if they were real theories about human behaviour. This fact has at least facilitated the development of economic imperialism.

We have also analyzed the clear-cut means-ends distinction, which is one of the two basic features of formal scarcity, and shown that it is the source of the chain of associations of concepts that operates in Robbins’s thoughts – which ultimately results in a purge of normative propositions from the scope of the science. We found that this drastic distinction does not hold even from a theoretical point of view, so it is a drawback that leaves the door open to many problems regarding the exclusion of ends and normative judgements from the scope of economics, as well as other kinds of problems regarding the “non-technical” character of the science. We have also seen that the criticisms that have been raised against Robbins that are based on the aforementioned problems are closely related to the shortcomings that have been detected in the economic imperialist approach of the science. This provides additional support to the main thesis developed in this paper, that the extension of economics is not a consequence of the “width” of Robbins’s definition of the science, as usually believed.

As a final conclusion it is worthy emphasizing that it should be distinguished between Robbins's conception of formal and real scarcity – or theoretical and real economy, see Falgueras-Salinas (1988). On the one hand, real scarcity refers to the subject-matter of the science. Regarding this subject-matter, no limits exist because real scarcity is present in all human behaviour – this is what Kizner (1976:119) calls the “breath” of Robbins's definition. On the other hand, formal scarcity refers to the method of studying this subject-matter – this is what Kizner (1976:121) calls the “formalism” of Robbins's definition. To bring into the light real scarcity, it is formally represented as a relationship between ends and means. Though all human actions are influenced by real scarcity, not all human actions can be fruitfully illuminated by formal scarcity. Thus, the “breath” of the method is different from the breath of the subject-matter of the science. The problem is that both concepts are mixed in the work of Robbins and in his definition of economics, and it is difficult to separate them. As a consequence, it is usually understood that the “breath” of the method is the same as the “breath” of the subject-matter, and that all human problems can be fruitfully illuminated by the economic science. However, if deprived of the foregoing association, Robbins's definition of economics helps to understand the anthropological foundations real economic problems. Additionally, it can serve to unify the different and competing views that coexist in the science, since many discussions between the different schools of thought are caused by the confusion between real and formal scarcity. Obviously, this “integration” is not an easy task and cannot be done directly but it needs distinguishing between different categories of “economic” research, depending on the kinds of questions that the researcher wants to answer – or knowledge that he wants to acquire. However, this is a theme for further research.

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