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The debate about the nature of the ancient Greek economy: 19th century German scholarship and modern economic theory

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Abstract: Nineteenth century German thinkers have been instrumental in defining and shaping the debate about the nature of the ancient Greek economy. The present essay reviews the debate between primitivism and modernism and, following Max Weber's contributions, its successor debate between substantivism and formalism. As this debate concerns the applicability of the rational choice model to the decision-making of the ancient actor, the paper also surveys questions about the role of institutions and ideology in explaining economic behaviour.

Keywords: Ancient Greek economy; primitivism; modernism; substantivism; formalism; instrumental rationality; irrationality; ideology.

JEL Codes: B40; D01; D74; N01

1. Introduction

German thinkers have been instrumental in defining and shaping the debate about the nature of the ancient Greek economy. The debate started in the nineteenth century as a controversy between the “primitivist” and “modernist.” The former viewed the economy as small-scale, lacking sophistication, reliant on home production and practicing self-sufficiency at the city-state level. The modernist view considered the economy as complex in its activities and organisations which were thought as comparable to contemporary advanced economies. The debate has continued in the

twentieth century as a dispute between the “substantivist” and the “formalist” views, where the former considered ancient actors as lacking rationality and economic activities as embedded in other spheres of activity especially politics and religion, while the latter saw economic activities as independent of other human pursuits and amenable to the methodology of rational choice. The present paper reviews the intellectual debt to the German scholarship, traces how the debate evolved and evaluates the contribution that economic analysis makes to the study of the ancient economy.

The next section summarises the main tenets of the nineteenth century German Historical School of Political Economy whose views about the economy and objections against Classical and Neoclassical Economics triggered the controversy regarding the nature of the ancient Greek economy. Section 3 reviews the debates about the nature of the ancient Greek economy, first “primitivism” versus “modernism”, and its successor “substantivism” against “formalism.” With primitivism and substantivism rejecting that the ancient economic decision-makers acted rationally, while on the contrary formalism and modernism accepting it, Section 4 surveys the question of the applicability of economic rationality and variants thereof to the study of the ancient economy. Section 5 concludes.

2. Intellectual antecedents

Among the fundamental tenets of Classical Economics are that the economy is subject to laws that can be studied; society is stratified in social classes whose members perform different roles in the economic process; interdependent markets coordinate economic activities; the actions of self-interested individuals have unintended consequences; market competition ensures order and spurs development; and labour is the main source of a society’s wealth.¹ Some of the most prominent characteristics of Neoclassical Economics, which followed the Classical Economics, are the notion of humans as constrained optimising decision-takers maximising profits or utility under given resources and incomes; a subjectivist theory of goods value and income distribution (which was contrary to the objectivist theory of Classical Economics); examination of

¹ See Kurz (2016) for details. In his wide-ranging and informative, yet brief and highly accessible, history of economic thought Kurz offers an illuminating and thorough account and critique of Classical and Neoclassical Economics.

changes at the margin (henceforth the label “marginalism”); consideration of production and consumption side-by-side (thus supplementing the idea of diminishing returns in production taken from Classical Economics with diminishing marginal utility); emphasis on substitutability in production or consumption, where different combinations of resources yield equal levels of production or utility; and investigation of the comparative static properties of equilibrium outcomes.²

The Classical Economists were familiar with the writings of the ancient Greek philosophers; they were also well versed in ancient Greek history. Morley (1998) shows that David Hume, Adam Smith and Thomas Malthus, as well as Karl Marx, consistently referred to ancient authors and discussed issues relating to luxury, population size, slavery, maritime republics and colonisation. Nevertheless, as “they noted with satisfaction the failings and fumbings of classical [ancient] authors in the study of the economy” (Morley 1998: 95) the Classical Economists were excited by the realisation that they were introducing Economics as a new field of study and a new methodology. Morley also contrasts the attention of Classical Economists to the ancient authors with their contemporary historians, like Edward Gibbon (1737-1794) and George Grote (1794-1871), who were interested mostly in politics and war. As a result, the latter did not say much about the ancient economy.³ With industrialisation inaugurating unprecedented growth and raising a host of new economic and social questions, economic analysis largely stopped drawing inspiration from, or indeed paying attention to, ancient history.

The “Early” or “Older German Historical School” emerged in the mid nineteenth century and reached the peak of its influence in the 1860s partly as a reaction to the growing ideas of Classical Economics and *laissez faire* spreading in Europe at the time.⁴ It argued for empirical observation and inductive reasoning in opposition to deductive reasoning from theoretical principles championed by Economics. The School claimed that human social constructions, like the legal system, the economic system and so on,

² These (partial) accounts of Classical and Neoclassical Economics draw on Kurz (2016).

³ Nevertheless, Gibbon frequently applied a model of rational behavior to reconstruct historical decisions. I owe this clarification to Manfred Holler.

⁴ For a succinct summary of the beliefs held by the German Historical School, their evolution and representative theorists see <https://www.hetwebsite.net/het/schools/historic.htm>.

were the result of the entire history of a people, and could not be derived from abstract rationalist principles by a theorist, nor could they be established by intelligent policy makers. For the “Early Historical School” of Roscher (1817-1894), Knies (1821-1898) and Hildebrand (1812-1878), economic behaviour was contingent upon its historical, social and institutional context. The School rejected the idea that economic theory could be applied universally to all locations and times. Analysis of economic behaviour had to be inter-disciplinary combining economics with history and sociology, instead of relying on mathematical modelling. Its analysis made use of “organic” metaphors in the economy and the society, and as a result it viewed economic history as a linear development through successive and distinct stages of increasingly complex organisation.

In the 1870s the “Younger Historical School” group of scholars included Gustav von Schmoller (1838-1917) for whom the economy did not exist as an independent entity. Schmoller led a “historical-ethical” approach to economics in the “battle over methods” debate (*Methodenstreit*) against the marginal utility approach of Neoclassical Economics and the Austrian Carl Menger (1840-1921) in particular. (See Kurz, 2106: 57-81, for a detailed account.) Schmoller and his followers rejected marginalism, and maintained that formulation of economic theory could come only after a thorough historical study that discovers regularities in behaviour. Menger attacked this position arguing for constructing a theory on the basis of abstract individual decision-takers with needs and capabilities and interacting with each other in interconnected markets. “Both sides took their respective positions to excess. From today’s perspective, the *Methodenstreit* was intellectually astonishingly sterile” (Kurz 2016: 75).⁵

⁵ Reflecting partly the older “cameralist” tradition of German economics which focused on efficient government and securing largest state revenue (see Kurz 2016 pp:14-15), the Younger School also emphasized economics as a normative approach and supported an active role of the state in the economy; its thinking influenced the economic and social policies of Bismarck. Two other prominent figures were Adolph Wagner (1837-1915) and Ernst Engel (1821-1896). The former authored the famous ‘law’ that during industrialization the size of the public sector increases faster than the level of economic activity. The latter penned the ‘law’ that as income rises, the proportion of household expenditure on food falls.

For the purpose of the present essay an important figure of the Younger Historical School was Karl Bücher (1847-1930). He studied ancient history and philology at the University of Bonn, submitted his habilitation thesis at the University of Munich in 1881 and held a professorial chair in Nationalökonomie at the University of Leipzig.

3. The debate on the nature of the ancient Greek economy

3.1 Primitivism versus Modernism

The ancient Greek world spanned over a long time, the Archaic Period, 776-480, the Classical Period, 480-323, and the Hellenistic Period, 323-31 (all dates BCE). The Archaic Period witnessed the birth of the polis (city-state), an independent political and economic unit controlling a small territory. Ober (2015) counts a very large number of them of various sizes, 1,100 approximately, spread over the shores of the Mediterranean Sea and the Black Sea. This form of organisation reached its peak during the Classical period with Athens, Sparta, and Thebes as the dominant powers at different times. The Hellenistic period was characterised by large kingdoms which prevailed after Alexander the Great conquered the Persian Empire. They included the Kingdom of Macedon, Ptolemaic Egypt, the Seleucid Kingdom in Syria, and the Pergamon Kingdom of the Attalids in Asia Minor. In addition, forms of proto-federations appeared in mainland Greece, like the Aetolian and Achaean leagues, which brought together scores of city-states.⁶ During that period, Greek civilization spread into the eastern basin of the Mediterranean Sea.

In 1893 Karl Bücher started the debate about the nature of the ancient Greek economy by proposing what became known as the primitivist view. According to this view, the ancient economy was characterized by small scale domestic production intended primarily to satisfy the immediate needs of the family with no or little reliance on the market. Products were not standardised and as a result prices lacked uniformity, formats that today we would characterise as “thin markets.” Gifts and spoils from war rather than market exchanges were far more pronounced as means of acquisition. In 1895, Eduard Meyer (1855-1930), a professor of ancient history at Halle at the time, expressed the opposite position inaugurating

⁶ See Economou and Kyriazis (2018) and the literature therein.

the modernist view. He commented on the institutional and economic transformation of the Greek world from the Archaic to the Hellenistic times and identified elements of specialization, division of labour and trade. He considered that the economy contained aspects of modernity and that the difference was that the scale of the ancient market was smaller. In a similar vein, and based on archaeological evidence, the Russia-born, Yale historian and archaeologist, Michael Rostovtzeff (1870-1852) argued that during the Hellenistic times the scale of the economy was large enough to qualify as modern.

Reviewing the controversy between the two German scholars, Bresson (2016) suggests that both were selective in the evidence used to support their arguments, and they were looking at the ancient Greek society from the perspective of nineteenth century European society. Bücher's Historical School viewed the economy as the result of institutions which in turn were determined by power relationships among social groups, and supported an active economic role for the state. On the contrary, the modernist view was inspired by the free market economy of the Classical and Neoclassical Economics, focusing on methodological individualism and the construction of *homo economicus*, the rational actor who always chooses his actions to pursue his well-defined material interest, and has universal applicability. This dispute was far more encompassing than arguments about the nature of the ancient Greek economy. Bresson (op.cit.: 3) further argues "if commerce, money and even craft production were in fact present, the economy of ancient Greece was certainly not an 'industrial' economy. Although agriculture was the main productive sector, and though in the country-side self-consumption of what was produced was still the rule, it was not a 'primitive' economy either."

The "Youngest Historical School" returned to the positive approach of the "Early School". One of its leading lights and its last representative was Max Weber (1864-1920), professor of political economy at Freiburg (1894-96) and Heidelberg (1896-1903), whose writings relate directly to the analysis of the ancient economy. In his work on methodology he states that research in history, economics and social relationships cannot be fully inductive or descriptive as one must adopt a conceptual apparatus. Unlike the earlier Historical School which described development as a sequence of successive stages, Weber proposed the framework of four "ideal types" of behaviour, namely, action guided by instrumental rationality, by value-oriented rationality or belief, by emotion and by tradition or custom.

According to Weber the ancient economic agents lacked instrumental rationality. He saw the citizen of the ancient city-state as a *homo politicus* instead of *homo economicus*. The *homo politicus* had no interest in developing enterprise, kept technology at low levels, and sought war booty instead of maximising profits or investing in capital. Similar primitivist notions in favour of the *homo politicus* also permeate the work of Joannes Hasebroek (1893-1957), professor of Ancient History in Cologne, on trade between ancient city-states. For Weber only the western capitalist economies were rationally managed. The ancient economy was ruled by institutions that had nothing to do with economic rationality, and had no independent existence in pre-modern societies. He advocated a sociological rather than economic investigation of the ancient economy. As is well known, Weber devoted significant effort to argue that the Protestant ethic of hard work explains the development of the capitalist economy. This argument changed the direction of Marxian causality where the class in control of economic relations determines culture and religion, to its reverse, where religion and culture explain economic relations. Thence, Weber further thought that lacking an ideology of enterprise and growth ancient Greece and Rome failed to transform to industrial capitalism.

3.2 *Substantivism versus Formalism*

Although between the two World Wars the Historical School faded, an offshoot appeared in the USA known as the “Institutionalist School” with Thorstein Veblen (1857-1929) and John Commons (1862-1945) as its main proponents. They too emphasised that historical factors and power structure institutions rather than neoclassical economics models explain economic behaviour. Kurz (2016: 106) describes it as follows: “Old institutional economics” is rooted in an empirical and historical orientation and advocates an evolutionist outlook on economic phenomena; there is a clear line of continuity connecting it to the older German historical school. (“New institutional economics” [see below Section 4] instead studies social norms, organizational arrangements, and the like from the viewpoint of the neoclassical model of rational choice.) Its advocates do not argue by way of constructing models but rather more sociologically. They reject the figure of *homo economicus* and the two central concepts of neoclassical economics: the concept of rationality, in the (narrow) sense of optimizing under given and known constraints, and the concept of equilibrium. In their view, David Hume’s picture of people as “but a heap of

contradictions” – as the playthings of passions, instincts, and habits – is closer to reality than that of the coolly calculating automaton that is perfectly informed, foresees all possible circumstances in the world, and acts optimally. The view that man fully understands the world is totally alien to institutional economists, who see institutions as a way to cope with incomplete information and uncertainty. In *The Theory of the Leisure Class* (1899), Veblen identified social recognition and prestige as the chief motives of human action. Wealth and a high income are a means to the end of ‘conspicuous consumption’: the public display of wealth in order to impress others is reminiscent of Adam Smith’s ‘parade of riches’.”

Following the institutionalist approach and drawing on anthropological research, Karl Polanyi (1886–1964) stressed that resources can be allocated through state redistribution, reciprocity (gift exchange), or the market, with the former two being most common before the capitalist era (he saw the latter as destroying the social fabric and as a transitory stage only to be replaced by a socialist system). Polanyi distinguished between “substantive” and “formal” economies. The former existed only to satisfy basic human needs, which were embedded in political and religious institutions. In the embedded economy, actors were not interested in profit maximisation, and, unlike the market system, prices did not correspond to the forces of demand and supply. On the contrary, for Polanyi only the modern market economy is a formal economy, as it is independent of non-economic institutions and the impersonal forces of demand and supply determine prices. In his critique North (1981) explained that Polanyi had erroneously considered any deviation from the price-making market as non-economising behaviour, while, in truth, any form of voluntary contractual exchange involves a market transaction.

The substantivist view of the ancient economy was established as the mainstream view by the contributions of Moses Finley (1912–1986), American-born professor of ancient history at Cambridge. He argued that the ancient Greek economy could not be analysed by the formal tools of modern economics. Finley claimed that the economy did not exist as an autonomous system independent of political and religious considerations. In his view, one first needs to understand the value system in order to understand the economy. He argued that decision-makers were motivated by maximising status, “an admirably vague word with considerable psychological element” (Finley 1979: 51), rather than maximising profit. Further, “So long as an acceptable life-style could be maintained, however

that was defined, other values held the stage” (Finley 1979: 147). For Finley, this system of beliefs contributed little to technological progress and retarded capital accumulation and economic development.

Instrumental rationality assumes that the decision maker possesses a well-defined set of preferences and chooses the use of limited resources to satisfy his preferences, whereas the *homo politicus* is characterized by procedural rationality which assumes that each actor conducts himself according to social rules and norms. In the ancient Greek economy, the basic unit of economic and social organization was the household (*oikos*) comprising the house as a building, its equipment, the persons living in the house (including slaves) and their belongings, land, tools, plants and animals. The argument goes that profits and return to capital did not make sense in that environment. According to Finley, the value system of ancient Greece emphasized the wellbeing of the community over that of the individual; as a result, economic activities were subordinate to social and political pursuits. The purpose of economic activity was that the individual male citizen provided for himself and his family, ideally by farming his land. Manual labour in manufacturing workshops and market trade not linked to the family farm were looked upon with disdain as vulgar or brutal (“*banauistic*”) work. Similarly, dependent work was considered as loss of one’s freedom. As a result, free wage earners were held in low esteem. Having satisfied the need for sustenance, the good citizen was expected to engage in the public, religious, political, and military life of the polis, and work for the wellbeing of the community. In the “substantivist” view, living off rents was “morally superior” to market pursuits. Finley further writes (1979: 44) “... in antiquity land ownership on a sufficient scale marks ‘the absence of any occupation’...”⁷ The city-based elite were a “rentier” class like a parasite living off the farmers of the countryside. Since economic actors neither aimed to maximise profits nor did they apply rational management, the economy remained small scale, focused on household production and pursued the ideal of self-sufficiency at the household and the city-state level. It follows that in that environment economic growth could

⁷ Similarly Cartledge (2003: 23) notes “The criterion of distinction [of wealth] was leisure: what mattered was whether or not one was sufficiently ‘rich’ not to have to work at all for one’s living...The relationship of rich and poor citizens was conceived as one of permanent antagonism, which too often took an actively political form.”

only come from exploiting new lands, which meant that the ancient economy could never escape the Malthusian trap, the proposition that growth is bound by the availability of food which rises slower than population, so that any population growth or living standard improvement can only be temporary. For detailed works in this tradition examining various types of activities, see amongst others Humphreys (1970), Millet (1991), Sallares (1991), von Reden (2007) and Engen (2010).

During the 1970s and 1980s Finley's view was the established orthodoxy (Hopkins 1983). However, in light of new evidence and advances in economic theory, "formalist" accounts gradually won ground. Formalism maintains that economic actors are essentially the same in every place and in every period, so that we can treat both ancients and modern Greeks as seeking to maximize profits and utility as posited by the rational choice model. The formalist view does not deny the importance of institutions and culture. In truth, both modern and ancient economies are products of the cultural and social systems that created them and henceforth they are embedded. Adam Smith says that much in the opening sentence of *The Theory of Moral Sentiments* (1759, Part I, Section I, Chapter i.1): "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it."⁸ Nevertheless, according to formalism, consumers and producers maximised utility and profits and resources were allocated through the interaction of demand and supply.

The formalist accounts of Burke (1992), Cohen (1992), Shipton (2000), Harris (2002), Amemiya (2007), Frier and Kehoe (2007), Halkos and Kyriazis (2010), and Harris and Lewis (2016) drew attention to the evidence that in the Classical and Hellenistic periods banking and international trade were large scale, market-based and characterised by sophisticated contractual arrangements. These authors considered decision-makers as acting rationally and motivated by profits. Moreover, economic activity was independent of social relations and extended over interconnected markets, which nevertheless were less sophisticated than those of today. Instead of being parasitic, several city-states were flourishing centres of manufacture. Harris (2002) has shown that the Athenian economy

⁸ This position is accepted by Foxhall (2002, 2007), a self-characterized "irre-

was characterized by extensive horizontal specialisation across a number of crafts created by the large range of different goods produced (but had little vertical division of labour to different stages inside a single unit).⁹ In accordance with economic rationality, unskilled labour was paid by the hour, for it was easy to monitor and observe its output, and skilled labour was paid by the piece. Harris and Lewis (2015) challenge the view that households aimed at self-sufficiency. Most cities had a permanent central market where demand and supply determined prices, and both rich landowners and merchants were seeking profits. Morris (2004), Ober (2015) and Bresson (2016) document that in the period 800-300, driven by the democratic institutions and culture of the polis, the Greek economy experienced significant growth. (See Tridimas 2018 for a summary of the growth profile of the ancient Greek economy and its decline.)

North et al. (2009) saw the connection between economics and politics as a fundamental part of the long-run development process. They introduced the concepts of “natural state” and “open access” states which are directly relevant to the substantivist–formalist controversy, although (surprisingly in view of the fact that North 1981: 80-123 talked extensively about economic change and decline in the ancient world) they left the nature of the ancient economy out of their work. They defined a limited access or natural state as one where “personal relationships, who one is and who one knows, form the basis of social organization and constitute the arena for individual interaction” (North et al. 2009: 13), and “dispersed control over violence leads to the formation of a dominant coalition that manipulates access in the economy and the society to sustain political arrangements within the coalition” (North et al. 2009: 121). The natural state entails an economy embedded in the prevailing social relationships. On the contrary, in an open access order, “impersonal categories of individuals, interact over a wide area of social behaviour with no need to be cognizant of the individual identity of their partners” (North et al. 2009:2), and “in open access societies, access to organizations is an impersonal right that all citizens possess” (North et al. 2009: 6). An open access order implies exchanges taking place through the market, that is, no

dentist substantivist.”

⁹ Information is mostly available for Athens, the most economically advanced Greek city-state. Its sophisticated democratic institutions and vibrant cultural life epitomised the prosperity of Classical Greece.

longer embedded economy. They considered all states as natural states in all recorded time up to the fifteenth or sixteenth centuries (ibid: 164). Centralised Sparta and Macedon were probably typical natural states; however, during the fifth and fourth centuries, democratic and economically successful Athens, where free and politically equal citizens collectively governed the polis, was not a natural state but had transformed to an open access state (Ober 2015, Acton 2016, Carugati et al. 2019).

4. The applicability of the rational choice model to the ancient economy

At the core of the substantivism–formalism debate is the question of whether the ancient actors were instrumentally rational. “A formalist believes that the Athenian economy can be analyzed by the basic behavioural assumptions of modern economics, namely, utility and profit maximisation, whereas a substantivist believes that a different set of behavioural assumptions, such as status maximization, must be substituted” (Amemiya 2007: 57). Other scholars take a more eclectic view. Christesen (2003) argues that in studying the ancient economy the assumptions of both instrumental rationality (*homo economicus*) and procedural rationality (*homo politicus*) are inappropriate; he contends that the notion of expressive rationality offers a more accurate description. An expressively rational individual typically responds to both individual tastes and societal expectations. Specifically, Christesen (2003: 55) argues that the ancient actors were interested in making profits, as per standard model, while simultaneously they valued land ownership as “procedurally rational in that agriculture was one of the normatively positive forms of acquisition.” Schefold (2011) argues that the modern neoclassical economic theory is at best of limited applicability to ancient Greece. However, he is keen to note “the great variety of model building in modern economics blurs the [non-applicability] since one often can construct some variant of a model that seems fit to represent some aspects of a pre-modern formation” (Schefold 2011: 131). Hamlin and Jennings (2011) review theories of expressive behaviour, the idea that an act may be motivated by the act itself rather than the outcome of the act. They identify three broad categories of theories of expressive behaviour, “expressing identity, expressing moral views, and expressing social pressures, ‘rational irrationality’ and self-delusion” (Hamlin and Jennings 2011: 648). Identity,

social pressures and morality may then seem to offer a modern theoretical basis for the refutation of instrumental rationality by substantivism.

4.1 Irrational pursuits of ancient Greeks

Substantivist scholars have argued that the ancient Greeks pursued a wide range of non-material objectives. We have already said that Finley emphasized maximization of status maintaining that “a model of economic choices ... in antiquity would give considerable weight to this factor of status” (Finley 1979: 60). A second objective related to war or belligerence. War was prevalent in the world of the ancient Greek city-states. For example, during the period 479–338, Athens was at war on average for two out of three years, and did not have more than ten consecutive years of peace. Ancient historians have portrayed the ancient Greek society as competitive, engaging in war because it championed the virtues of “*andreia*” (= pugnacious courage). Waging war promoted honour and status and confirmed a man’s loyalty to the city-state. According to Balot (2004: 407), “The ‘prototypical’ meaning of *andreia* – courage, or manliness – was the virtue that enabled men, and especially hoplite citizens to overcome fear of death on the battlefield ... Naturally, Greek speakers could produce synonyms ... *Arete*, a heroically tinged term ... means ‘excellence’ or ‘valour’ or in specific military contexts ‘martial courage’.” Raaflaub (2009: 241) writes: “Competitiveness and a fierce spirit of independence on the one side, imperial ambitions to be realized by war on the other... War between communities, the Greeks believed, was an unalterable condition of human society.” For Pritchard (2015: 149), “extension of the traditional conception of *aretē* (‘courage’) down the social scale made soldiering attractive ... as a source of esteem ... Athenians could be so accused not only if they retreated from a battle before others but also if they failed to endorse a war that appeared to be necessary.”¹⁰

¹⁰ For references to the ancient authors and an extensive bibliography regarding war, see Pritchard (2010). Pritchard (ibid) also notes that the virtue of courage applied to hoplite (heavily armed infantry) fighting. Retreat in the sense of fleeing was shameful for an infantry soldier; however, it should not be confused with retreat as a standard and highly effective formation tactic to ram an enemy ship in naval warfare.

Additional non-material objectives related to seeking self-sufficiency, self-employment, farming one's own land instead of manufacturing or trade, reciprocal assistance, often taking the form of gift exchange, interest-free personal loans called *eranos* (however interest was paid on credit for larger enterprises, like buying agricultural estates and financing maritime trade), altruism, as in the case of spending lavishly on a liturgy (privately financed public service), and self-sacrifice.

Schefold (2011: 151f) discusses the irrationality of religious beliefs. “[Consider] the merchant who is to cross the Mediterranean with his ship and his load and who sacrifices a ram for safe arrival. Weber would have spoken of a traditional rationality in such a context, which led to an unnecessary cost. But von Mises¹¹ (1933) criticised him, saying that the merchant was rational in his wish for a safe voyage, he only made an error concerning the means to achieve his end. This distinction is not of material importance. Clearly, the sacrifice can be described either way. The advantage of Weber's formulation is to emphasise the historical context, that of von Mises to focus on the economic problem.”

4.2 Transaction costs and New Institutional Economics

The pursuit of non-material interests seems to contradict the instrumental rationality hypothesis. Nevertheless, economists freely accept that strict instrumental rationality is an abstraction for the modern world, and by implication the ancient world. However, most economists adhere to the fundamental principles that (a) the relevant unit for the study of decisions on the allocation of resources is the individual, (b) individuals maximise an objective function subject to the relevant constraints, imposed by nature as well as devised by humans, so that (c) observed outcomes can be analysed as the interplay of demand and supply. In this light, patterns of behaviour which systematically deviate from those predicted by the postulates of the neoclassical assumption of instrumental rationality may be explained by a more incisive examination of the objective function and a more systematic investigation of the relevant constraints.

Successful transactions require the exchange of information, but in an uncertain world, information is expensive to acquire and process while

¹¹ von Mises (1881–1973) was a radical laissez-faire Austrian economist opposed to the use of mathematics in economics, who contended that all value and cost are ultimately derived exclusively from the subjective evaluations of individuals.

cognitive biases limit the capacity of humans to reason. As a result, all exchanges are characterised by (varying) transaction costs which include the cost of money and inconvenience imposed by the various activities that each party to an exchange may undertake to ensure that the expected benefit from the exchange will be realised. Humans then set up institutions and organisations to economise on transaction costs and align incentives so that exchanges can be completed successfully. Thus, actors may carry out their transactions individually or jointly in groups (depending on which alternative brings the highest benefit net of costs) and are subject to a web of formal and informal rules of conduct, which determine what individuals are allowed to choose from the set of feasible options. North (1981) called the groups of individuals “organizations” and the rules which constrain behaviour “institutions.” He went on to build a theory of economic change from the dawn of humanity to modern times based those notions. His theory of institutions has three building blocks. (1) A theory of property rights which describe the individual and group incentives. The importance of property rights comes from the fact that there are occasions where assets are non-excludable common property resources causing free-riding problems which detract from socially efficient outcomes, while only when property rights are perfectly specified and enforced, and private and social costs and benefits coincide (which in turn maximises wealth). (2) A theory of the state, since it is the state which specifies and enforces property rights. (3) A theory of ideology which explains how different perceptions of reality affect the reactions of individuals to a changing environment. In this light, economics is still a potent methodology to analyse the choices of the ancient actor by amending the standard maximization framework to take into account ideological preferences which relate to non-material interests, and by incorporating a richer set of constraints relating to both the physical and social environment.

The works of Coase on the firm (1937) and more recently North (1981) and Williamson (1985) have shown that by ignoring transaction costs Neoclassical Economics leads to erroneous inferences. The fundamental intuition is that actors set up institutions to decrease the cost inflicted by ubiquitous uncertainty. Institutions are rules, formal and informal, which constrain behaviour so that outcomes become more predictable and reliable. Institutions regulate conflict and govern exchanges which in turn affect incentives to produce, consume, invest and trade. Formal institutions are constitutions, laws and regulations; informal institutions include shared

cultural beliefs, social norms and customs which condition behaviour. This approach has been labelled *New Institutional Economics* (NIE). It has offered powerful insights to understand the decision-making of modern as well as ancient economic actors and uncovered evidence strongly supporting the formalist view.¹² The ancient economy was an economy where “Information costs were high ... and transaction costs higher still. Markets were thin and fragmented, and usually very localized. A rational economic actor would have a hard time discovering which factors of production had the highest marginal returns to investment, and a harder time still capturing a high level of private returns” (Morris 2002: 24). In this connection, Lyttkens (2013: 5) recommends to view the ancient agents as utility satisficers, meaning that “individuals, in view of the cost of seeking information, of calculating consequences of different courses of action, etc., stop searching for superior alternatives once they have found one that is sufficiently good.” Nevertheless, caution is needed when invoking satisficing behaviour not to justify any outcome.¹³

4.3 Rational Irrationality

A distinct strand of research amends the standard instrumental rationality model by adding ideological preferences to the standard utility function from material interests. This is in fact standard procedure in spatial decision models studying collective choice outcomes. Decision makers are typically assumed to have Euclidian preferences regarding an issue, that is, they have an ideal or bliss point and suffer a utility loss proportional to the distance from the ideal point. This approach was labelled by Caplan

¹² See the aforementioned works of Bresson (2016), Morris (2002, 2004) and Ober (2015). See also Lyttkens (2013) for a detailed discussion of applying NIE when studying the ancient world.

¹³ Allen (2011) has also employed transaction cost economics to explain pre-modern (1500-1800) institutions like the aristocracy, duelling, selling of public offices, tax farming, private roads and private police. He argues that when random natural forces render measurement of individual performance impossible, adverse incentives emerge with detrimental effects on welfare. To ameliorate these problems “communities required “patriarchal relations,” “feudal ties” and “chartered freedoms” to get many things done ... these strange institutions had an economic logic designed to solve incentive problems that arose in the pre-modern world (p.7).” Van Bavel (2015) offers a critique of this efficiency-driven explanation; his critique emphasizes the distribution of property and decision-making power in the society.

(2007) “*rational irrationality*.” He posits that in addition to wealth, ideology and emotion sway decision-makers and make them feel good about themselves. Hence, actors are interested in wealth maximisation and simultaneously hold “cherished views, valued for their own sake ... [that is, they] have preferences over beliefs” (Caplan 2007: 14). Under rational irrationality actors believe that their beliefs are in their true interests. Pursuing ideological beliefs confers psychological rather than material benefits (recall the previous discussion of expressive behaviour).

The psychological benefits are the subject-matter of behavioural economics which incorporates insights from psychology into economic behaviour (see amongst others Kahneman and Tversky 1979). This branch of literature has shown that actual behaviour may diverge from the postulates of instrumental rationality as a result of errors residing in framing effects (whereby spurious information may affect actions); loss aversion (namely, the disutility from a loss is larger than the benefit from a gain of an equal size), time inconsistency (where an actor plans today future behaviour, but when the future arrives he prefers to do something different), emotions, religious beliefs, norms of fairness held by the actors, and spiteful behaviour (or altruism, its opposite). According to behavioural economics, people do not always have well-defined preferences and people’s preferences about social outcomes are at least partly endogenous to the particular institutional and social context of their actions (Hargreaves Heap 2013). If so, behavioural economics is the modern basis for supporting the substantivist view that preferences are conditioned by the social context. Indeed, Lewis (2018) commends enlisting behavioural economics to analyse the ancient economy: “The classical Greeks, just like us, were limited by cognitive shortcomings to possessing at best a ‘bounded rationality’, and they were far from dispassionate and wholly individualistic: like us, they were embedded in their own matrix of cultural institutions and values as well as the dynamics of social interaction” (Lewis 2018: 39).

Be that as it may, the intuition from behavioural economics has been challenged. For example, Gull and Pesendorfer (2008) among others reaffirm that standard economics takes preferences as given and studies choices given those preferences, while psychology examines how preferences are formed. Further, on closer examination circumstances where economic actors do not seem to act rationally are explained away by

observing that the actors face subjective constraints which were not obvious at first reading of the decision problem.

Somehow ironically, rather than analysing production or trade, recent scholarship in political economy has applied the rational choice model to examine political behaviour in ancient Greece. This line of research uses game-theoretic models to explore tyranny, the foundation of direct democracy, institutions like sortition and ostracism, public administration, courts and legal arrangements, and tax and expenditure policy outcomes within such institutions, which strike as peculiar from a modern standpoint. Lyttkens (2013) and Tridimas (2015) among others offer reviews of this burgeoning literature.¹⁴

5. Conclusions

We owe an intellectual debt to nineteenth century German scholars with a classical education who in the climate of great economic, political and scientific changes were curious enough to explore the nature of the ancient economy. The first wave of inquiry set those who thought of the economy as primitive against those who detected strong elements of modernity. The second wave embroiled a larger academic community inspired by ideas regarding rational behaviour and included Max Weber's seminal contribution. This is the dispute between substantivist, who reject that the ancient actors were rational as posited by neoclassical economics, and formalists who employ rationality as a suitable methodology.

This analysis closes with two related observations. First, substantivism has not proposed a formal mathematical model of the ancient economic actor. A model is an abstract construction, providing predictions based on realistic assumptions, and brings to the fore aspects of behaviour deemed as most important for studying the issue at hand. Given the denial of rationality and the multitude of factors which affect behaviour this is perhaps no big surprise. Nevertheless, this gap offers the economist trained in formal methods a potentially interesting field to explore. Second, work on New Institutional Economics emphasises the role of transaction costs and admits without serious reservations that ideology has an important

¹⁴The interested reader may also consult the Special Issue of the *Constitutional Political Economy* edited by McCannon and Tridimas (2018) and the references within.

effect on what is perceived as conferring utility. In so doing, it has turned the old Institutionalist position on its head: it applies Neoclassical Economics to explain history, social relations and the formation of institutions rather than the other way around. As a corollary, it suggests that what may be considered as irrational behaviour of the ancient actor is in truth fully compatible with the model of optimising behaviour. On this account, providing sound micro-foundations for the formal analysis of the ancient economy allows a better understanding of the economy as well as a better evaluation of economics. However, despite the sophistication of formal economic models, modelling ideology presents challenges. Behavioural economics has suggested ways to model status (or its counter-image, altruism) as relative standing in the social ladder, but modelling of other ideological beliefs, like religion, self-sufficiency or heroism in the battlefield presents new challenges.

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