Behavioural Economics and Economic Behaviour in Classical Athens*

For N. Keith Rutter

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Thomas Kuhn argued that 'paradigm shifts' occur only in the hard sciences. He would surely have been hard pressed to uphold this view had he lived to witness the sea change that has occurred in ancient economic history during the past decade and a half.[1] Finley's 'New Orthodoxy' – which held sway during the 1970s and 1980s, and still retained widespread support until shortly after the turn of the millennium – has now been extensively dismantled.[2] This change has come about through a mixture of theoretical advances (principally the shift towards the New Institutional Economics, or NIE) and a large number of empirical studies, the latter of which have shown that the ancient economy was far from as economically stagnant as the 'New Orthodoxy' supposed. But in the shift away from the Finley school, several variables that garnered much attention from substantivists like Finley and which have an important bearing on economic behaviour have been left behind; and in some ways we now run the risk of replacing the narrow range of interests of the 'New Orthodoxy' with a different, but similarly narrow, set of interests that constitute the primary subject matter of a 'Newer Orthodoxy' based on NIE. In this essay I neither propose that we return to the Finley approach, nor abandon the (very profitable) insights of NIE. Rather, I aim to highlight some of those variables that – though once the focus of attention - have been neglected in recent works of ancient economic history, and suggest new ways of looking at them. Rather than choose one 'school' over another (an approach that, if it gains enough followers, invariably leads to the calcification of narrow orthodoxies), I aim to graft the insights of several approaches onto the current paradigm, in the hope that this will enrich our methodological toolbox for approaching the economic history of the Greek world.

One striking feature of recent revisionist work on the Greek economy is the extent to which it has sidestepped the main thrust of Finley's argument as to why the economy took the shape that he thought it took. A brief review of both Finley's central thesis and more recent reactions to it will bring out the contrast more clearly. On Finley's view, one has to envisage the ancient economy as a unity running from the time of Homer down to late antiquity.[3] What binds this large stretch of time together and makes it a unified whole is the factor of mentality: elites in Greece and Rome shared the same basic outlook when it came to moneymaking.[4] Agriculture was the basis of their wealth, and really the only suitable source of wealth for a respectable man of consequence.[5] Such individuals disdained other forms of economic activity, viz. commerce, banking, and manufacture. These sectors of economic activity did exist, but they were conducted on a petty scale because they were in the hands of foreigners; in the case of Athens, that largely means metics. Since metics could not own land, they could not raise financial capital by pledging their land as security for loans: in Finley's words, a wall was erected between the world of commerce and the credit-potential of the land. This acted as a brake on growth and meant that commerce and markets operated on a fairly small scale.[6]

Finley was well acquainted with the textual evidence from Attica, and knew that some kind of profit-maximising behaviour did exist: this is what Aristotle was talking about when he analysed *chrematistikê*.[7] But this kind of mentality was largely limited to the petty traders and manufacturers of the metic population: most of the

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1 Kuhn (1972): 6-7. Challenge to the Finleyan 'New Orthodoxy' goes back further than fifteen years, of course; see infra. I am referring here, rather, to the fact that it is the last decade that has witnessed the mass of scholars (rather than just a few) turning away from Finley's view of the economy, which can hardly be considered orthodox any longer.

2 For a detailed summary of the current understanding of the ancient Greek economy see Bresson (2015a). For an overview of the debate and a sketch of work since Finley (1973), see Harris & Lewis (2015): 3-9.

3 e.g. Finley (1999) [1973]: 183. (I refer here and hereafter to the 1999 edition of Finley's *The Ancient Economy*).

4 Finley (1999): 60.

5 Finley (1999): 122.

6 Finley (1999): 48.

7 Finley (1970).

citizenry simply did not think this way. On the one hand, the mass of the citizens were subsistence farmers, and their mentality was firmly fixed on autarky; on the other hand, the elite, though they did produce goods for the market, left the running of their farms over to slave or freedman managers.[8] Their mentality was one fixated on politics, not making money: 'over-riding values' restricted the elite to drawing income from their landed estates, but avoiding investment in other economic sectors.[9] So the major reason why Finley's ancient economy looked stagnant was that elites – the people who controlled the largest amount of resources – did not think in what neoclassical economists call 'rational, profit-maximising' terms.[10] Several important consequences stemmed from this putative mentality, among them the apparent failure to produce technological innovations, economic science, and double-entry book keeping.[11] Many of these arguments were not Finley's original insights but were drawn from the work of earlier scholars – especially Max Weber (who stressed the distinction between an ancient, status-maximizing *Homo politicus* and a medieval and modern income-maximizing *Homo economicus*[12]) and Karl Polanyi (who stressed the notion of an economy 'embedded' in social and political structures as opposed to a modern 'disembedded' market economy as a separate sphere of activity).[13] The importance of Polanyi's contrast between a modern disembedded economy and an ancient embedded economy was also underscored in M.M. Austin and P. Vidal-Naquet's *Économies et sociétés en Grèce ancienne* (1972), a work closely aligned with the Finley approach, whose authors pointed out that it was 'fundamental' to the substantivist outlook.[14]

Early revisionist work did tackle Finley's emphasis on mentalities head-on. In his essay 'The Athenian Entrepreneur' (1982), W.E. Thompson argued that Finley had misrepresented the outlook of the Athenian upper classes, insofar as the *Homo politicus* model that Finley had adopted from Weber simply did not measure up to the evidence. Elite Athenians, according to Thompson, thought like entrepreneurs; perhaps not twentieth-century entrepreneurs drawing on the insights of modern economic science, but more like eighteenth-century entrepreneurs just prior to the Industrial Revolution: their knowledge was empirical and amateurish rather than scientific, but they invested money with an eye to maximising their profits nonetheless, and were not averse to investing in non-agricultural activities.[15] Thompson's study remains useful, but what is interesting is that so much of the more recent revisionist case against Finley's model has not followed Thompson's lead in directly addressing the issue of mentalities and values, but instead focused on the material side of the economy. Apart from an important article by Paul Christesen[16], to which we will return shortly, much of the case against Finley has been argued on the grounds that the ancient Greek economy was not stagnant because[17] (i) trade was far more important and high-volume than Finley thought, with poleis pursuing active policies regarding imports and exports (A. Bresson[18]); (ii) that in regions such as Attica there was extensive horizontal specialisation of labour, large permanent markets, widespread access to credit, and reliable third-party enforcement of contracts and property rights (E.M. Harris[19]); (iii) that the classical Greek world had an exceptionally large and urbanised population, with barely any of these conurbations corresponding to the parasitic 'consumer city' archetype (M.H. Hansen[20]); (iv) that steady growth characterised the period from 800 BC down to the last couple of centuries BC (I. Morris[21]); (v) that living standards, particularly in terms of 'wheat wages', were exceptionally high for a pre-modern economy (W. Scheidel[22]); (vi) and that classical and Hellenistic Greeks were surprisingly healthy and well grown, reaching average heights not again attained until the 20th century (G. Kron[23]). All manner of empirical studies, both archaeological and historical, have accumulated over the last few decades that, *in toto*, show that Finley seriously underestimated the size and dynamism of the commercial sector,

8 Finley (1999): 76; 107.
9 Finley (1999): 60.
10 Finley (1999): 113; 122; 140.
11 Finley (1965); (1970); (1999): 142.
12 Weber (1968) [1922]: 1354.
13 Polanyi (1968).
14 Austin & Vidal-Naquet (1977) [1972]: 8.
15 Thompson (1982).
16 Christesen (2003).
17 What follows is a very incomplete list; I intend it only to illustrate several important areas in which major advances have been made. On the empirical side, see also the important contributions of the Liverpool School and their 'bottom up' approach, which has added many useful case studies: Archibald et al. (2001); (2005); (2011).
18 See the collected essays in Bresson (2000), and the overview in Bresson (2015a).
19 Harris (2002); (2013); (2015).
20 For an overview of Hansen's work on demography and its economic implications, see Hansen (2006). For the argument that at least one Greek city-state (Sparta) did correspond to the 'consumer city' archetype, see Hansen (2009): 391-2.
21 Morris (2004).
22 Scheidel (2005); (2010).
23 Kron (2005); see also Lagia (2015) on diet.

underestimated the productivity of peasant farmers, exaggerated the difficulties of land transport, and took far too pessimistic a view of the availability of credit. But whether the Greeks were 'entrepreneurial' or not has - in most cases - come down *not* to arguing out the issue of 'over-riding values', as Finley put it, but to a kind of exercise in reverse-engineering: the Greek economy was vibrant and grew in material terms, so the individuals that created an economy like this cannot possibly have held the kind of unproductive mentality that Finley posited.

In writing this I do not aim to criticise those scholars whose immense labour has now overturned Finley's view of the economy and replaced it with something that far better reflects and explains our evidence; for one thing, had the case against Finley's view focused solely on mentalities, it is unlikely that we would have anywhere near as rich and detailed an understanding of the Greek economy as we now possess. Nor do I wish to underplay the contribution of NIE and its focus on institutional factors (in most cases formal institutional factors): there is no better illustration of what this approach – at its best - can achieve than Alain Bresson's remarkable *The Making of the Ancient Greek Economy: Institutions, Markets, and Growth in the City-States* (2015), which combines with great virtuosity all the traditional craft skills of the ancient historian (philology, expert *Quellenkritik*, expertise in epigraphy, numismatics, etc.) with the insights of North's economics to produce a masterful synthesis. Finally, some scholars have addressed the issue of rationality and values, though not on anything like the scale of the material side of the revisionist view of the economy.[24]

However, it would be an exaggeration to suggest that every questionable element of Finley's view of the ancient economy has been fully addressed. The fact that his emphasis on the negative effects of 'over-riding values' on growth is far from dead can be seen in the introduction to the *Cambridge Economic History of the Greco-Roman World* by Scheidel, Morris, and Saller, who point out that 'the economy remained miniscule by modern standards' (a fair enough observation) and attribute one cause of this to markets generating 'intense ideological conflicts.'[25] This is no rearguard action from the remnants of the Finley School, but a serious attempt at explanation by some of the more progressive scholars beginning to apply methodologies like NIE to clear the logjam of the formalist-substantivist debate. Evidently, the issue requires further study.

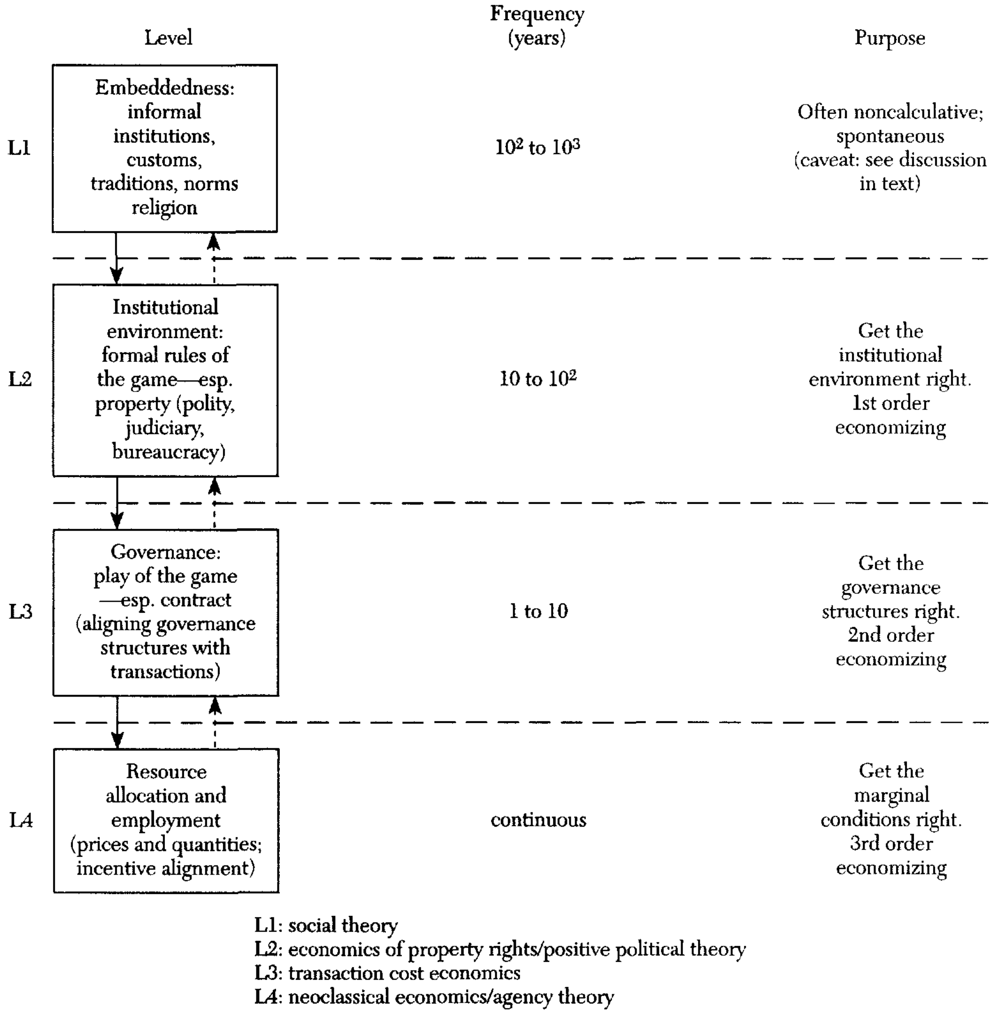
I. *Considerations of Method*

The main opponents of the Finley School during its heyday were the so-called 'Formalists' who applied neoclassical economic theory to the ancient world. Essentially, the formalist view holds that ancient economic actors were 'rational': in other words, they were self-interested individuals who aimed to maximise their profits, and took logical steps to achieve this end.[26] The formalist approach to economic activity is essentially a generalising approach: in any human society one can assume this kind of selfish, profit-maximizing behaviour, and there is little or no room built in to this perspective to accommodate any culture-specific variables such as ethical systems, social dynamics, etc., in their models. This model of human behaviour is usually referred to in the social sciences as that of *Homo economicus*.[27] But this form of behaviour was seen by substantivists such as Polanyi to be historically *atypical* – it only characterised the behaviour of economic actors in modern times.[28] Earlier economies were embedded in social and political structures, and the market did not exist as a separate sphere of human activity. According to the substantivists, then, the kind of rational, profit-maximising behaviour typical of modern capitalist economies cannot be assumed *a priori* for economies of the ancient world.

In a useful discussion of recent approaches to the ancient economy, Zosia Archibald and J.K. Davies have enumerated various schools of modern economic thought that might be applied to the study of ancient economies, and among other things, help resolve the standoff between formalists and substantivists. By and large the main item on Archibald and Davies' list that has led the charge against the Finley School has been New Institutional Economics. By relaxing the formalist approach through combining some generalised laws of economic behaviour with attention to the culturally specific aspects of different societies' institutional arrangements, this approach has to some extent moved us beyond the substantivist-formalist impasse. But

[24] Christesen (2003), on which see infra; Harris (2002): 84-6; Bitros & Karayiannis (2008); Bresson (2015a): 16-18.
[25] Morris, Saller & Scheidel (2007): 10.
[26] Astute readers will notice that I write 'profits' rather than 'utility.' The latter is potentially far more nuanced than the former, denoting an individual's overall wellbeing. *Logô men*, formalists commonly use the terminology of utility; *ergô de,* this often amounts to little more than a euphemism for monetary profits. Despite the flaws in his view (on which see below), Hobson (2014): 12 is quite right that recently, formalists of a distinctly modernist bent 'have been increasingly welcomed back into the centre of discussion.' For recent formalist contributions see Silver (2004), Temin (2013), Jones (2014).
[27] On the intellectual history of *Homo economicus* see Zouboulakis (2014).
[28] Though he did find traces of it in fourth century BC Athens: Polanyi (1968): 78-115.

Archibald and Davies note various other approaches among what they call 'post-war heterodox economics', and it might be beneficial to expand their list to include work on behavioural economics as well as economic sociology. I take my cue from one of the leading practitioners of the New Institutional Economics, Oliver Williamson, a student of both Ronald Coase (the founding father of the NIE) and Herbert Simon (arguably the founding father of behavioural economics). In his article 'The New Institutional Economics: Taking Stock, Looking Ahead' (2000), Williamson sets out a schematic in which he adumbrates four levels of social analysis (fig. 1).



'To a hammer, every problem looks like a nail.' That criticism could be levelled against some formalist economic historians[29]; but not against Williamson, who rightly points out that NIE deals chiefly with levels 2 and 3 of this schema.[30] Advocating methodological pluralism rather than claiming that his own school represents a 'theory of everything', Williamson leaves room for both economic sociology and behavioural economics as tools for improving our understanding of economic activity.[31] Likewise, Arthur Denzau and Douglass North also recognise the importance of Level 1 phenomena, ideologies, which they define as 'the shared framework of mental models that groups of individuals possess that provide both an interpretation of the environment and a prescription as to how that environment should be structured.'[32] They go on to write:

The mental models that the mind creates and the institutions that individuals create are both essential to the way human beings structure their environment in their interactions with it. An understanding of how such models evolve and the relationship between them is the single most important step that research in the social sciences can make to replace the black box of the 'rationality'

[29] Most remarkable in this respect is Morris Silver's attempt at interpreting ancient mythology in economic terms: see Silver (1992), with the critical review of Postgate (1995).
[30] Williamson (2000): 596.
[31] Williamson (2000): 595-6; cf. 600, 'There is close to unanimity within the NIE on the idea of limited cognitive competence – often referred to as bounded rationality.'
[32] Denzau & North (1994): 4.

assumption used in economics and rational choice models.[33]

Taking Williams' advice on methodological pluralism, I hope to show that a toolbox including all three of these approaches (the NIE, behavioural economics, economic sociology) can help us to construct a better framework in which to locate our analysis of ancient economic behaviour.

As we have noted already, Finley fought his case mainly on the grounds of a putative set of 'over-riding values' that led elites to avoid profit-maximising behaviour. If we contextualise this in terms of Williamson's schema, we can see that Finley's arguments regarding the ancient economy were mainly fought out at Level 1, that is, the realm of social attitudes, codes of conduct, and informal norms. Since the NIE works best on levels 2 and 3, we need first to draw on a different tool, namely economic sociology, to address the specific problem of Finley's challenge.

In the 'Level 1' box of his schema, Williamson writes the term 'embeddedness.' One instantly thinks of Karl Polanyi's distinction between historically embedded economies, and modern disembedded economies; but this connection is misleading and not what Williamson has in mind. As Williamson uses it, the term 'embeddedness' is employed in the sense set out in a famous article by Mark Granovetter, indeed one of the founding studies of economic sociology, 'Economic Action and Social Structure: The Problem of Embeddedness' (1985). Here, Granovetter rejected the stark distinction of Polanyi between historical economies that are embedded in forms of social and political action, and modern disembedded economies in which the market operates in an independent sphere with no connection to social or political variables. In Granovetter's view, 'embeddedness' is a useful concept that applies to all economies, historical and present-day:

> I assert that the level of embeddedness of economic behaviour is lower in nonmarket societies than is claimed by substantivists and development theorists, and it has changed less with "modernization" than they believe; but I argue also that this level has always been and continues to be more substantial than is allowed for by formalists and economists.[34]

As Granovetter rightly points out, it is simply not the case that modern Western economies operate in some sort of hermetically-sealed zone disconnected from the rest of society, even if that kind of abstraction is the way in which they are treated in neoclassical economics (largely for normative rather than descriptive reasons).[35] Granovetter thus suggests that we employ the term 'embeddedness' to describe the ways in which economic activity in any society is enmeshed with other aspects of social life, particularly social relations. This is a sensible suggestion, and as Williamson points out, perfectly compatible with the NIE, even if the finer details of how 'embeddedness' affects economic behaviour require further working out.[36]

At any rate, these theoretical advances move us a long way from the Polanyi position on 'embeddedness' that Austin and Vidal-Naquet rightly claimed was 'fundamental' to the Finleyan/substantivist approach. As we already noted, Finley and (many of) his followers drew a stark contrast between modern and ancient economic actors[37]: in their view modern economic actors are rational profit maximisers operating in a market economy that is disembedded from the broader currents of social and political life, whereas ancient economic actors were not rational profit maximisers, but were instead fully enmeshed in socio-political structures whose attendant values precluded this sort of behaviour. Theoretical advances in economic sociology have moved us past this

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[33] Denzau & North (1994): 5; cf. North (1993).

[34] Granovetter (1985): 482-3. Granovetter provides much-needed nuance in a debate that has tended to be polarised around exaggerated and rigid alternatives. As Harris (1993): 103-4 points out, Finley's intellectual lineage from Weber led him to view problems in terms of inflexible dichotomies, especially market vs. non-market economies (on which see Harris & Lewis 2015: 10). Harris reminds me *per litteras* that various early social scientists viewed several problems in terms of rigid dichotomies: 'Tönnies did this with *Gemeinschaft* and *Gesellschaft*, Durkheim did it with mechanical and organic solidarity (and criminal law vs. commercial law), and Marx over-simplified with his various stages of economic development.' Such ideal types are often justified as being mere models, but too often these models are used not for heuristic purposes but are instead treated as facts around which the evidence has to be selectively applied, bent into shape, or simply ignored; cf. Davies (2015): 241, rightly writing of 'the destructive oversimplification that is inherent in the use of ideal types.'

[35] This seems intuitively correct; cf. Foxhall (2007): 42, 'The idea that 'the economy' or 'the market' is impersonal and 'disembedded' in our own or any other time seems to me (...) no more than an ideal of our own society. Surely our own economy is also 'embedded', in the sense that it is structured by the culture(s) and societies in which it operates, even if as a global, mega-institution, viewed from the stratosphere of macroeconomics, it also has a kind of independent existence with its own cycles and momentum.'

[36] In part, Granovetter's 1985 article was a reaction against the NIE and especially neoclassical economics; but his overall approach is compatible with the NIE, as Nee (2005) points out. Williamson endorses Smelsner and Swederberg's view that 'the concept of embeddedness remains in need of greater theoretical specification': see Williamson (2000): 597. For a recent attempt at rapprochement between economics, anthropology, and moral philosophy, see the essays in Fischer (ed.) (2013). For a plea to integrate institutional economics with psychology, see Hermann (2010).

[37] Here and hereafter, when I write of 'actors' I imply individuals rather than organisations.

stark contrast: modern economic actors are also embedded in social norms, a fact that is 'taken as a given by most institutional economists.'[38] This is a point that (almost) everyone seems able to agree on.

As I see it, then, there is a pressing need to re-map the relative coordinates of modern and ancient economic actors (qua individuals), even if that involves a certain degree of imprecision, fixing our new coordinates in a ballpark sense rather than in any precise manner. This challenges involves two separate but related questions:

1.) What are the general cognitive limitations on so-called 'rational' behaviour? With the Finleyan contrast between ancient and modern economic actors, it is easy to over-emphasise the 'rationality' of modern individuals, and thus to broaden the gulf between them and their ancient antecedents. But since we are dealing with the same basic organism, viz. the human being, it is important that we better understand the boundaries of human rationality in general. This will arm us against an exaggerated contrast between ancient, allegedly irrational economic actors and modern, allegedly fully rational actors, on the one hand (the basic fault with the substantivist, Finleyan position); and the exaggerated, mechanical, and generalising view of *Homo economicus,* a view that moreover comes stripped of the standard human emotional repertoire and abstracted from the context of social relations[39] (the basic fault with the formalist position). To understand this issue more fully, we will draw on the findings of behavioural economics.

2.) If we accept, as we should (and practitioners of NIE like Williamson and North do), Granovetter's point that social norms matter for students of the economy, what on earth shall we do with Finley's emphasis on 'over-riding values'? As we have noted, the most important advances behind our current understanding of the ancient Greek economy have been built on empirical data and on a reassessment of the material aspects of the economy. These seem impossible to square with Finley's view, for if he was right that 'over riding values' acted as a brake on economic development, how then can we account for the remarkable growth, both aggregate and per capita, that has been fairly well established in recent works?[40] Were the values that Finley pointed to simply less 'over-riding' than we once thought? Or does the problem lie elsewhere? I would like to suggest that Finley was quite right to flag up the effect of social values on economic activity, but simply misread what those values were, for reasons that we will come to shortly. This will necessitate revisiting the evidence for social attitudes to wealth and moneymaking in ancient Greece in general, and classical Attica in particular.

II. From *Homo economicus* to *Homo sapiens*: the advantages of a behaviouralist approach[41]

The most important contribution to date on the issue of rationality and economic behaviour in classical Greece is Paul Christesen's 2003 article 'Economic Rationalism in Fourth Century BC Athens.' Christesen's study was penned at a time when Finley's view of the ancient Greek economy still enjoyed widespread currency.[42] This explains the focus of the article, which is to show that the Athenians really could weigh up investment options and make intelligent calculations based on an assessment of risks and returns, a task Christesen achieves with élan, and a view that I think we can take now as proven.[43] In the introduction to his piece, though, Christesen does discuss work in behavioural economics, and one conclusion of his article is that future work should

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[38] Williamson (2000): 596.

[39] The importance of social interaction between individuals as an influence on economic choice, flagged up by Granovetter (1985), has been given empirical backing by Hill & Sally (2003), who show that in 'Ultimatum Game' experiments (on which see infra), players with autism spectrum conditions are more likely to act closer to the manner predicted for *Homo economicus.* As Henrich et al. (2005): 799 note, 'presumably their inability to imagine the reactions of responders leads them to behave (…) in accordance with the canonical model.' On a different note, recently the BBC ran a feature on 'One man's bid to get the best energy deal' (BBC website, 7th October 2016). The subject, Peter Nadin, by acting like the *Homo economicus* of formal theory through gathering all available information on energy suppliers and investing time in choosing and changing supplier for the optimal deal, displayed behaviour so singular that it was deemed newsworthy at the national level. According to the report, 'he applies the same methods to his banking and currently has 19 current accounts maximising his interest-earning potential.'

[40] See, for example, the important studies of Ober (2015) and Bresson (2015).

[41] I have cribbed my subtitle from Thaler (2000); I hope he does not mind.

[42] This statement might seem odd, for 2003 is not so long ago; but the chronology is important. For the continuing durability of Finley's view of the economy around the turn of the millennium, see Cartledge (2002), orig. (1998), which essentially repeats Finley's view with the modifications to it made by Hopkins (1983). Cartledge seems to have now changed his view, as his endorsement on the dust jacket of Ober (2015) suggests.

[43] On this issue see further Faraguna (2008). On workshops and investment choices, see Acton (2015).

concentrate more on popular morality regarding the economic sphere in ancient Greece.[44] Taking Christesen's advice, then, we will take up both these themes in this essay, first by looking at the field of behavioural economics (§II), and second by looking at Greek social values (§§III-IV). As a large, dynamic and fast-expanding field, one cannot do proper justice to behavioural economics in such a brief review; for now, all I aim to do is to draw out several important strands from this body of work that have important consequences for how historians envisage economic behaviour in the past.

IIa. Bounded Rationality

As we noted already, Herbert Simon can arguably be viewed as the progenitor of this field of study.[45] In his *Administrative Behaviour* (1947), Simon pointed out that the assumptions underpinning the notion of *Homo economicus* bore little relation to real economic decision-making. I should qualify this statement. Even in neoclassical economics, the idea of a *Homo economicus* is obviously an abstraction rather than a description of reality, and good neoclassical economists are well aware of its artificial quality.[46] However, they insist on its usefulness in heuristic terms: when we come to model economic behaviour, it is simply impractical to do so with something as complex as a real human being, so *Homo economicus* is a 'good enough' substitute for pragmatic reasons. In other words, by assuming selfishness and profit-maximising behaviour, one will not go too far wrong. What Simon began to show was not that *Homo economicus* was artificial (everyone knew this), but that it was far further off the mark in terms of modelling human behaviour than the neoclassical position admitted, so far in fact that its heuristic utility is extremely limited.

One of Simon's emphases was on the information gathering process and the reality of imperfect information, including 'information asymmetry', an idea more fully worked out in Akerloff's 'The Market for Lemons.'[47] Since information asymmetry is now a well-known problem among historians of the ancient Greek economy, and a focus of NIE-inspired research, I will not dwell on it here.[48] Besides, this problem concerns the environment in which the individual makes choices, not the nature of the individual himself. Simon not only emphasised the imperfection of information, but also the cognitive limitations of humans to process this information and make perfectly 'rational' choices based on it. He did not claim that people were irrational, only that their ability to be perfectly rational was limited. People did not possess the 'Olympian rationality' of *Homo economicus*: rather, they possessed what Simon called 'bounded rationality.'

IIb. Risk, Biases and Heuristics

These points seem rather obvious now, but subsequent work in behavioural economics would flesh out in greater detail how economic decision-making works in practice. Another early breakthrough was Kahnemann and Tversky's work on prospect theory, for which Kahneman won the 2002 Nobel Memorial Prize in economics (shared with Vernon L. Smith).[49] Kahnemann and Tversky came from a background in cognitive psychology, not economics. These scientists compared the ideal behaviour of utility maximisers to the observed behaviour of human subjects in a number of experiments examining decisions made under risk. In circumstances where stakes were high in terms of potential gains, people acted irrationally by choosing a lower gain and forgoing a modest level of risk for a larger gain. Conversely, in situations where individuals were presented with the scenario of loss of assets, they acted irrationally in a different way: rather than accepting the certain option of a smaller loss, they risked gambling by making a choice with uncertain prospects and the possibility of a larger loss. Their work led Kahnemann and Tversky to examine cognitive biases, that is, ways in

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44 Christesen (2003): 32.

45 Adam Smith's *Theory of Moral Sentiments* [1759] already contained many points that are incompatible with the rational actor model in its neoclassical form. Cf. Veblen (1898): 389 'The hedonistic conception of man is that of a lightning calculator of pleasures and pains, who oscillates like a homogeneous globule of desire of happiness under the impulse of stimuli that shift him about the area, but leave him intact.' Veblen sets out an alternative model of human behaviour drawing on anthropology in the following pages of his article.

46 Denzau & North (1994): 5 discuss Friedman's defence of the assumption: 'Friedman states that it is unnecessary for the substantive rationality model to be a descriptive model, with the detailed implication true at the individual level. Rather, the model is supposed only to be applied empirically at the aggregated, or market, level.' See Thaler (2000): 138-9 for a more critical stance: in his experience as an economist, many of his colleagues pay lip service to the distinction between rationality as a normative or heuristic notion and rationality as a description of reality, and in practice treat the two as the same thing.

47 Akerloff (1970).

48 For an excellent study of the problem in relation to transport amphoras, see Lawall (2015); for institutions as a means of reducing information asymmetry, see Harris (2015).

49 Kahnemann & Tversky (1979).

which our minds over-weight or under-weight the importance of certain variables in a manner incompatible with the utility maximising model; and also heuristics, that is, mental shortcuts (or decisions made by 'rule of thumb') where instead of calculating how to maximise utility in a slow, deliberative and thorough sense, individuals make quick choices based on certain generalised assumptions.[50]

Behavioural economics has had perhaps its strongest impact in the field of finance. For example, studies of stock trading have empirically demonstrated the role of overconfidence as a cognitive bias, and further shown that there are gender differences in the distribution of overconfident behaviour, with males proving more reckless in their choices.[51] Another area of behavioural finance concerns savings for retirement, where indolence, optimism about future income, and a tendency to put off decisions adversely affects many individuals and results in sub-optimal allocation of resources for retirement plans. Behavioural economists such as Shlomo Benartzi and Richard Thaler have developed strategies that manipulate inbuilt cognitive biases to counter these tendencies.[52]

As for heuristics, one might take as an example the 'Affect Heuristic.' Denes- Raj and Epstein studied the tendency of individuals to make sub-optimal choices in a simple test when subjects were rewarded $1 for each red jellybean they plucked from a bowl. They were given a choice of two bowls, one of which was small and contained more red jellybeans both overall and relative to other colours, the other of which was larger and contained fewer red jellybeans both overall and relative to other colours. Most subjects irrationally opted for the larger bowl, a choice seemingly based on a heuristic: the simplistic notion that greater size yields greater rewards.[53]

IIc. Emotions and Fairness

Another aspect of economic behaviour that deviates from the assumptions of the *Homo economicus* model concerns the role of fairness. Studies have shown how individuals can act contrary to their material interests due to concerns of fairness[54]; this can of course apply in a positive manner (tipping, giving to charity), but also in a negative manner: perhaps the most famous example is the 'Ultimatum Game.' Thaler provides a neat summary:

> In the ultimatum game one player, the Proposer, is given a sum of money, say $10, and makes an offer of some portion of the money, x, to the other player, the Responder. The Responder can either accept or reject the offer in which case both players get nothing. Experimental results reveal that very low offers (less than 20 percent of the pie) are often rejected. Speaking very generally, one can say that Responders react emotionally to very low offers. We might get more specific and say that they react indignantly.[55]

Of course, had *Homo economicus* played this game, he would have accepted any amount above zero. Scientific studies of body chemistry during the ultimatum game have tied penalising unfairness to increased levels of the chemical seratonin.[56] Remarkably, studies of unfairness in the distribution of resources with primates have revealed a similar tendency, where subjects reject unfair offers just like human subjects. This has been explained as an artefact of our evolutionary inheritance, and linked to social ranking behaviour within groups.[57]

IId. Altruism

Linked to the variable of fairness is altruism, behaviour that in the economic sphere acts wholly contrary to the assumptions of *homo economicus.* Once more, defenders of *homo economicus* sought to explain away altrustic behaviour as relatively insignificant in overall terms, or simply a veiled form of self-interest. But a growing body of work is showing how altrusim is a major behavioural preference and needs to be incorporated into any model of economic behaviour.[58]

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[50] On Kahnemann & Tversky's early work see Thaler (2015): 22-51. On heuristics, see Kahnemann's discussion of 'system 1' thinking in Kahnemann (2011).
[51] Barber & Odean (1999); (2001).
[52] e.g. Benartzi & Thaler (2007); (2013).
[53] Denes-Raj & Epstein (1994).
[54] Kahnemann, Knetsch & Thaler (1986); Rabin (1993); Fehr & Gächter (2000).
[55] Thaler (2000): 139-40.
[56] Crockett et al. (2008).
[57] Brosnan & de Waal (2003).
[58] Overview in Fehr and Schmidt (2006).

These four areas – limitations in cognitive competence, biases and sub-optimal rule-of-thumb modes of decision-making, and the allegedly irrational motives of fairness and altruism – hardly exhaust research in this field, but they are important points to consider when thinking about economic behaviour in historical societies like classical Athens. But how can we apply these findings? Two routes are open to us.

1. First is direct application, which may seem distasteful to cultural relativists who refuse to generalise about human behaviour at all, and for whom any generalisation commits the folly of the Formalists. This criticism should not be dismissed out of hand; but it can be taken rather too far: there is a middle ground that steers a course between the Scylla and Charybdis of reductive generalisation on the one hand, and narrow-minded parochialism and cultural relativism on the other. Let us take the issues of fairness and altruism as an example. The anthropologist Joseph Henrich and his colleagues have studied altruism and fairness in relation to economic behaviour in a number of simple societies and found variation from place to place in the degree to which it manifests in field experiments.[59] Their results show that we cannot assume uniformity worldwide on these issues, or attempt some sort of generalising quantification regarding their role in human behaviour; but all the same, in every society they studied, fairness and altruism *do* matter, and in no society did individuals live up to the selfish expectations of *Homo economicus*. In that respect, we can generalise: these variables are important, and we should aim to discover how they affected economic behaviour in the societies we study.

Some Greek reactions regarding issues of fairness in the economic realm appear distinctly familiar, such as Plato's irritation at vendors with a monopoly on supply in out-of-the-way locations who use this advantage to charge unfair prices to their customers.[60] (Though it should be emphasised that Plato accepted the need for commerce, so long as it was properly regulated and kept to its appropriate realm.[61]) Another example is Bresson's recent explanation of Greek civic institutions that acted against speculation and cartels in the grain trade, which has a strong behavioural element: these institutions formalised in terms of legal rules the cultural and emotional rejection by Greeks of a free market in the grain supply that would allow rich people to profit whilst poorer citizens starved or were forced to pay inflated prices.[62] And in a recent study, Davies has highlighted the forces – including popular indignation regarding sharp dealing – that shaped the Athenian fish market and the laws that regulated it.[63] In such examples we can see how the general human emotional substratum (with its powerful demands for fairness and sociability), combined with the particular history of class struggles that forged the civic societies of the Greek world, led to the creation of institutions that were perhaps inefficient, but were justified insofar as they served broader notions of civic responsibility.

At any rate, it goes without saying that this behavioural element in institutional design, as well as cultural attitudes, can only be studied qualitatively, not quantitatively. But recent work on embodied cognition and the emotions has achieved important advances with regard to the study of emotion in ancient Greece.[64] Many advances have also been made in the study of Greek social values.[65] There is much potential to integrate this work into mainstream dialogue on economic history, and thereby enrich our appreciation of the forces that shaped the behaviour of individuals acting in the economic realm.

2. The second and less ambitious option is indirect application: this relates back to my earlier point about re-mapping the relative co-ordinates of ancient and modern economic actors. Research into behavioural economics cuts down to size the exaggerated competence and selfishness of *Homo economicus*.[66] If modern individuals are less efficient and selfish than was once thought, *a fortiori* ancient economic actors cannot be expected to live up to

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[59] Henrich et al. (2004); summary in Henrich et al. (2005).

[60] Compare Pl. *Leg.* 919a6-b1 with Lucy Bannerman & Neil Johnstone's article 'WH Smith is forced to end hospital shop 'rip-off'' published on *The Times* website, Septmber 23rd 2015. On price gouging and its emotional effects see Thaler (2015): 127-39 for further examples.

[61] See Schofield (1999), particularly pp. 75-6 on Finley's misreading of *Resp.* 370a-c.

[62] Bresson (2015b): 431, 'such institutional interventions can be understood in the framework of the city, either because in the democratic cities of the Classical period the political influence of the poorest categories of the population partially counterbalanced that of the elites, or because later on the elites in power always had to reckon with popular discontent, which could often take violent forms.' Cf. 393-5.

[63] Davies (forthcoming), though in this case the proposed law may not have been passed. My thanks to J.K. Davies for sending me this article ahead of publication.

[64] See e.g. Cairns & Fulkerson (2015).

[65] Dover (1974) is the classic study; but note also Cairns (1993); Gill, Posthelthwaite & Seaford (1998); and the recent study of Herman (2006).

[66] This is true of firms as well as individuals: see Thaler (2015): 120-4 on blunders at General Motors.

such an unrealistic standard either. We are already closing the gap, then, between the exaggerated rationality of the modern individual and the exaggerated irrationality of the ancient individual postulated by Finley, by toning down the former. Above all, these findings should cause us to be more critical of some of the recent resurrections of formalism (often clothed in the more neutral garb of NIE) which rely on the 'rational-actor model' that, as Hobson points out, are once again *de rigueur*.[67]

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These two points, then, take us from the general to the specific: we can assume an imperfect, boundedly rational individual equipped with the standard emotional apparatus for any historical society.[68] Greek historians can add depth and shading to this model by looking in greater detail at ancient Greek culture, values, and social interactions. This takes us full circle to the question with which we began: Finley's emphasis on 'over-riding values.'

III. *Salvaging (aspects of) substantivism*

Compared to the deluge of NIE-inspired studies, recent work in the Finleyan tradition has displayed a rather lower volume of output. In many ways the current, diminished state of substantivism is one of their own making: dogmatic adherence to Finley's views[69] and an inability to uncouple substantivism from primitivism[70] has meant that with the recent advances in our understanding of the material aspects of the ancient economy (viz. urbanism, markets, levels of trade, diet and stature, etc.), the New Orthodoxy version of the ancient economy has become increasingly difficult to defend.

Some scholars - sometimes branded neo-primitivists - have attempted to counter this recent move away from Finley by sketching an ancient economy beset by crippling levels of information asymmetry.[71] Others have targeted the political origins of NIE. Since it grew out of (and in dialogue with) neoclassical economics, some scholars - such as Boldizzoni and Hobson - have criticised NIE and cliometric approaches to history more broadly as the vanguard of a neoliberalist, free market, development economics vision of how the world should be; one indeed that is looking to the historical sciences for empirical confirmation.[72] On this view, recent experiments with NIE represent a dangerous kind of alchemy that (often unwittingly) further a right-wing agenda. It would be foolish to ignore these criticisms: certainly the dangers of one-size-fits-all development economics have been recognised even by conservatives[73]; and there are other grounds besides political affiliations for criticising neoclassical economics and its assumptions.[74]

However, some of the criticisms of these scholars are misplaced. The notion that the very exercise of quantification furthers a neoliberal agenda seems rather incredible when one thinks of historians such as Gomme and Sargent, who made important advances in the field of Greek historical demography (an inherently quantitative task) long before neoliberalism existed as a political ideology; and Hobson's rejection of concepts such as transaction costs and information asymmetry – whose utility to the economic historian is immediately

[67] Hobson (2014): 12. I certainly do not wish to brand all NIE-inspired scholarship on the ancient world as a formalist wolf in sheep's clothing: see my comments on Bresson and others, supra. Rather, the NIE banner is flown by a very disparate group of scholars, some of them professional historians with sensitivity to the subtleties of Greek culture, others with less training in this regard and often a greater tendency towards simplistic generalisations about human behaviour. As for formalists, Thaler (2015): 128 makes an extremely important point about their training in neoclassical economics: this tends to make the student think and behave more like the *Homo economicus* of formal theory (a fact that can be demonstrated in experiments), which perhaps explains why that model seems far more believable to formalists than to the rest of us.
[68] Cf. Christesen (2003): 32 on S. Hargreaves Heap's notion of 'expressive rationality', which amounts to much the same thing.
[69] Partly this resulted from the New Orthodoxy's metamorphosis from a methodological approach aligned with substantivism to a creed with fixed views on how the ancient economy looked: for the creed, see Hopkins (1983): xi-xii.
[70] There is no real reason why the substantivist approach requires a primitivist view of the economy. For an essentially substantivist explanation for the recovery of London after the recent recession (by a leading economist trained in the formalist tradition), see McWilliams (2015). (In short, the 'flat white' revolution in creative industries that kick-started London's recovery from the recent recession was fuelled by East London being a trendy place for young entrepreneurs to live, rather than it being a particularly promising place to do business in any traditional 'economic' sense.)
[71] e.g. Bang (2008); Johnstone (2011).
[72] Boldizzoni (2011); Hobson (2014).
[73] See Stewart (2004): 349-60.
[74] For a new critique (by a leading physicist) of neoclassical economics as based on outdated 19th c mathematics, see Sylos Labini (2016).

apparent – seems like an exercise in cutting off one's nose to spite one's face.[75] This approach, which would have us return to the days of Finley in protest, further neglects the fact that some of the major voices against free-market economics, neoliberalism, and the (rather obscene) levels of inequality in modern societies are professional economists.[76] One does not have to agree with Boldizzoni and Hobson to believe that there are, nevertheless, aspects of substantivism that are worth salvaging, in particular its emphasis on social values. Here, the problem with Finley's view is not so much his claim that social values are important to economic behaviour – which is a perfectly reasonable position, and compatible with Williamson's view discussed earlier in this essay – but his reading of what those values comprised. There are three basic flaws with Finley's account of 'over-riding values' and their putative economic consequences in antiquity. First, it is homogenising: Finley tended to focus on areas of apparent consensus among elite authors in the Greek and Roman world, whist overlooking important differences of viewpoint. Second, it is selective: Finley ignored inconvenient passages that did not fit with his view of the economy. Third, he treated certain writers as representative of a general elite mentality when closer study suggests that their views were idiosyncratic and very much out of step with popular views. Let us look at each in turn.

IIIa. Homogenisation

There is an element of circular reasoning in Finley's view of a Greco-Roman elite 'mentality' regarding moneymaking. He asserts that the mentality exists, and then cherry-picks the sources to confirm it; if there are gaps on the Greek side, his initial assumption of uniformity permits him to fill them in from Roman evidence. For example, when discussing elite investment in maritime trade, Finley does not compare the Greek and Roman evidence side-by-side: he simply quotes Cicero.[77] Since he presumes the existence of a single unifying mentality, Cicero can speak for his classical Athenian counterparts as a kind of *synêgoros*. This clearly won't do: if we are to follow Finley on the idea of a unified set of attitudes to moneymaking among Greek and Roman elites, that would require a rigorous study of all the evidence lined up side-by-side and progressing from one topic (e.g. investments in maritime trade) to another (e.g. attitudes to agriculture). But the problem does not just concern grafting Roman evidence on to Greek topics: Finley's approach also tends to elide the views of various Greek writers, as if they spoke with a single voice on the matter of making money.[78] This is a major flaw, as we shall see.

IIIb. Selectivity

Not only did Finley tend to graft Roman evidence into a Greek context to produce a unified picture of upper class mentality: he also omitted key evidence running contrary to his views. For example, in his discussion on the ancient state as an economic actor, Finley wrote that the state was only interested in imports, not exports.[79] In a paper published in 1987 (now available in English translation), Alain Bresson showed that this view is flatly contradicted in Greek texts, both normative and descriptive.[80] In normative terms, Aristotle talks about imports and exports in the same breath, and never argues that states simply need to import and not export. In descriptive terms, writers such as Thucydides and Polybius, when referring to the economic policies of real-life poleis such as Corcyra and Byzantium, also treat imports and exports together. This omission is difficult to account for: one could overlook Finley's error were it merely the case that he had read the sources hurriedly, but his article on Aristotle and economic thought makes it abundantly clear that he had a very thorough knowledge of Aristotle's writings.[81]

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[75] Hobson (2014): 13. Hobson's refusal to recognise any general laws of economics is more extreme than the view of Finley, who for instance believed that prices were influenced by demand and supply: see Finley (1999): 178.

[76] For example, Stiglitz (2012), or the many newspaper columns on the economics of austerity penned by Paul Krugman over the last few years; cf. also Chang (2014). Even a former conservative prime minister has railed against levels of inequality in modern Britain (though his solution – more philanthropy rather than a better tax system – seems very unlikely to succeed): see Sir John Major's article 'The government alone cannot end inequality' published on *The Telegraph* website, November 10th 2015.

[77] Finley (1999): 42-57. On p. 57 he writes 'Thus far, in sum, Cicero the moralist has proved to be not a bad guide to prevailing values.'

[78] Cartledge (2002): 17 makes the same mistake: 'Arguably, Aristophanes, Plato, Xenophon, Demosthenes and Aristotle shared an identical or closely similar economic mentality.'

[79] Finley (1999): 132-9.

[80] Bresson (1987) = Bresson (2015b).

[81] Finley (1970).

IIIc. Generalisation from idiosyncrasy

The third weakness of Finley's view of 'over-riding values' is that he takes individual views as representative of behaviour in a generalised sense. This is particularly problematic because *The Ancient Economy* contains some very acute methodological observations about precisely this issue.[82] In his treatment of Plato and Aristotle, Finley seems to ignore his own advice and treat them both as representative of his putative 'elite mentality' – so Plato's ideal states push trade to the margins because it is ungentlemanly; and Aristotle's emphasis on self-sufficiency and his theory of money is scaled up as a concern shared by Greek citizens in general rather than Aristotle in particular. However, a more careful reading shows that on both of these issues at least, the philosophers present an idiosyncratic rather than a popular viewpoint.

We may take Plato first. In a rigorous and careful analysis, Geoffrey Kron has explained the logic behind Plato's marginalisation of trade in his ideal states. Plato loathed radical democracy of the Athenian sort, and as a keen observer of reality, noticed that it was the urbanised working class – the *agoraios ochlos* and *nautikos ochlos* – who constituted the main support base for radical democratic politicians such as Cleon and his successors. This power base among the hucksters, traders, and craftsmen could not be permitted to exist in the ideal state, so Plato chose to minimise as far as possible the non-agricultural sector in the economies of these imagined states, as Kron puts it, to inoculate them against the evils of radical democracy.[83] Far from channelling some putative elite bias against making money from non-agricultural sources (flatly contradicted by our empirical data on elite wealth in Athens[84]), Plato was proposing an idiosyncratic piece of social engineering. One must not confuse means and ends. Plato made his ideal states overwhelmingly agrarian to limit the potential for the development of radical democracy (as well as keeping out corruptive foreign ideas), not because he wanted to return to some sort of aristocratic agrarian ideal. In fact, Plato constantly criticises the Athenians in general (not just the lower classes) for their obsession with *chrematistikê*, the relentless pursuit of making money.[85]

We can also turn to Aristotle. In the introduction to a recently published volume that I co-wrote with Edward Harris, Harris points out that Aristotle's views on self-sufficiency and producing just enough to satisfy one's needs – far from representing the standard opinion of most Greeks – are also idiosyncratic.[86] Finley, Austin, and Vidal-Naquet had read Aristotle's views in terms of general ethical attitudes that were pervasive throughout society and shaped (if not determined) the behaviour of citizens. Harris, however, shows that on a careful reading Aristotle himself admits that his own views are unusual. In his discussion of *oikonomia*, Aristotle differentiates it from *chrematistikê*, that is, the pursuit of money; but he states that most people think that the two are identical, and that the art of household management is therefore not, in popular thinking, geared towards satisfying basic needs, but towards generating a surplus (Arist. *Pol.* 1.3.10.1256b40-1257a3). Harris also makes the important observation that Xenophon's treatment of household management in the *Oeconomicus* is much closer to the general mores to which Aristotle alludes.[87] This observation is important because it underscores the diversity of opinions among Greek writers, whereas as we have noted, Finley tended to lump them all together, cherry-picking their writings in order to build a composite picture of the so-called 'over-riding values' that hindered economic progress in antiquity.

These are just two examples of Finley's misreading of the sources and the significant consequences they have had for our view of economic life. Perhaps more than further NIE-inspired studies, then, there is a greater need for an overhaul of our understanding of moneymaking in Greek popular morality, for the full complexity of ancient Greek views on economic matters remains imperfectly understood. This task would require the old-fashioned methods of philology and source criticism rather than those of economics or other social sciences. Such an overhaul would *inter alia* have to incorporate an analysis of important social values such as *euergesia, sophrosyne* and *philotimia* - as well as negative traits such as *koros* and *pleonexia* - within its ambit, for these have important economic consequences. Furthermore, it would have to take a long diachronic view of the problem, for many of the popular attitudes to moneymaking did not appear *ex novo* in the classical period, but can be traced back to an earlier era. Here is not the place to undertake a detailed investigation, but a few remarks on archaic Greek attitudes to the generation of wealth will at least help in sketching the outlines of a diachronic view of the issue.

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82 Finley (1999): 43.
83 Kron (1996): 9; 32.
84 See Davies (1981) ch. 4 for a summary of the evidence, esp. pp. 41-9 for slave workshops; pp. 49-51 for urban landlordism; pp. 60ff. for risk capital.
85 Kron (1996): 24-40.
86 Harris & Lewis (2015): 26-7.
87 Harris & Lewis (2015): 27-8. On Aristotle and *chrematistikê* see also Davies (forthcoming).

IV. *The Archaic Roots of Popular Morality on Moneymaking*

We can trace some of these views back to Homer. For Finley, the Homeric world was one of landed aristocrats who were economically self-sufficient and avoided dabbling in trade.[88] But in a major revision of his *The World of Odysseus*, Hans van Wees found plenty of evidence for production geared at generating a surplus in the elite *oikos*.[89] This surplus was needed in order for elites to fully engage in a highly competitive culture that required resources for gift giving, largesse, and the establishment of marital ties with other elite households.[90] It is true that trade does not loom large among the pursuits of the wealthy, but that is because it represents a minor part of the economy at this early stage, with more importance placed on domestic production of surpluses and the pursuit of raids and warfare; but certainly the appearance of Athena disguised as Mentes trading iron for bronze (Hom. *Od.* 1.184) is unintelligible in a world where the elite held a putative disdain for commerce.

If we look at the roughly contemporary work of Hesiod, we find a similar view: one must not work simply up to a point of supplying one's needs, but aim at producing a surplus. Work is what allows one to avoid selling one's own land and instead to buy the land of another (Hes. *Op.* 300-311; 340-1). For Hesiod, though, the pursuit of profit must be mitigated by the observance of ethical norms: wealth is a good thing, but not if it is acquired unjustly (Hes. *Op.* 11f; 320f). For an average farmer like Hesiod the idea of augmenting one's fortune by force, or of maintaining a network of influential guest-friends abroad, is clearly not an option; but materially improving one's lot through toil and piling up a modicum of wealth is a pragmatic possibility.[91]

We find precisely the same idea if we skip forward a century to Attica in the time of Solon. Solon praises wealth, and says that it is something of which he would like more; but just like Hesiod, he proclaims that he does not want any wealth that is acquired unjustly (Solon fr. 13 [West]). That working hard to produce a surplus was not just an upper-class value but one shared more generally is clear from a sixth century black figure Attic amphora on which is depicted an olive yard with scene of oil being sold: the inscription on the vase reads 'O father Zeus, I wish I could become rich!' It clearly refers to someone below the wealthy elite, but who holds hopes of joining it by making enough money from his olive groves.[92] So from the very start, when textual evidence begins to shed light on Greek attitudes, we find a general outlook that is concerned not with making just enough to get by, but with becoming richer by producing a surplus. And whilst the Homeric *basileus* has much of his wealth tied up in land and agricultural labour, it would be an exaggeration to read too much of an anti-trade prejudice into this picture: foreign trade simply plays too minor a role in the Homeric economy to represent a viable alternative to landed wealth, for we are dealing with an early period which is in economic recovery after the Dark Age. When we move into the classical period, the lack of disdain for non-landed forms of income is clear from the wealth portfolios of elite classical Athenians studied by J.K. Davies and G. Kron.[93] Although most elite Athenians remained, like their Homeric antecedents, landowners, they showed no compunction about diversifying their income streams by investing in mining, craft workshops, and lending money to traders and merchants. So the empirical data matches the ethical norms that permit individuals to strive for wealth, so long as they do not act in the sort of individualistic, self-seeking manner that loses sight of the plight of others or contributes to the misery of their fellow citizens.

V. *Conclusion*

Let us sum up. When it comes to assessing how 'rational' economic actors were in classical Athens, two things are worth bearing in mind. First, with the findings of behavioural economics as part of what Davies calls our 'prism of awareness'[94], we should not expect robot-like efficiency or be too disappointed in we do not find it in our evidence. 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.

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88 Finley (1954); cf. Cartledge (2002): 27 'Homer was after all epic poetry, composed mainly about and for the elite, which largely screened out lower-class trade in a manner that a conservative eighteenth-century English aristocrat might have found congenial.'
89 Van Wees (1992): 49-53.
90 See also Harris (2012): 362-4.
91 See van Wees (2009).
92 For an image see Chatzidimitriou (2005) no. E 14 = Boardman (1991) no. 212.
93 Davies (1981); Kron (1996).
94 Davies (2005): 160.

Second, it is important to bear in mind institutions, both formal and informal. If we recall the schema set out by Oliver Williamson earlier in this essay, we can see that NIE focuses principally on formal 'rules of the game,' leaving informal social norms for the most part to economic sociology. By focussing on values, I am not suggesting we adopt what Granovetter would call a socially over-determined picture of the ancient Greek economy, with individuals acting out roles determined by moral views in the manner of automata.[95] What I am proposing is a more complete picture of economic life, insofar as it integrates popular morality with the institutional features that have been the subject of much recent work. Finley was absolutely correct to stress the importance of social values, but he was mistaken in his assessment of what those values comprised. When it comes to explaining the efflorescence of economic growth in ancient Greece between the eighth and fourth centuries BC, then, we can add to our list of contributory factors an ethical outlook that was broadly compatible with individuals making good through their own hard effort, whether in agriculture, trade, or other pursuits, but which was not compatible with self-seeking behaviour that lost sight of one's obligations to society at large, or a drive for wealth that knew no limits, *koros*.

I have used Oliver Williamson's schema of four layers of social analysis for heuristic purposes and neatness of exposition, but it would be misleading to view these layers as disconnected strata: the social attitudes of Williamson's Level I were also realised in the formal institutional architecture of the civic community (Williamson's Level II) as they developed from the archaic period onwards, both in the political and legal spheres. The institutions of the classical Athenian polis, with its broad extension of the citizen franchise, popular sovereignty, and a legal system that - however imperfectly - was designed to place individuals (whether rich or poor) on a level playing field and eliminate bribery, all grew out of the historical experience of the Athenians of the Archaic period: their deep mistrust of giving too much power to individuals; their experience of the social wreckage caused by powerful men whose accumulative desires knew no limits; the experience of rich individuals who would enslave their fellow Athenians for debt and sell them abroad simply because they had the legal right to do so and profited thereby. Popular ethics (level 1 phenomena) were thus realised and formalised in the political and legal institutions of the polis (level 2 phenomena).

A final word on the theme of this volume. I hope this essay has been able to demonstrate the utility of work in the social sciences as an aid to historical research, and that new perspectives can be grafted onto existing approaches in a way that will allow both the good ideas of old positions and the good ideas of new positions to be fruitfully integrated, and weaknesses in method and assumption to be chipped away and abandoned – a dual process of growing and pruning. But I hope this essay has also underscored the continual relevance of the old ways of doing historical research: it is when these traditional skills are combined and integrated with other disciplines, not replaced by them, that the most important and durable advances will be made.

WORKS CITED

Acton, P. (2015), 'Industry structure and income opportunities for households in classical Athens', in , in E.M. Harris, D.M. Lewis & M. Woolmer (eds.), *The Ancient Greek Economy: Markets, Households and City-States*, Cambridge & New York, pp. 149-65.

Archibald, Z.H., Davies, J.K., Gabrielsen, V. & G.J. Oliver (eds.) (2001), *Hellenistic Economies*, Abingdon & New York.

Archibald, Z.H., Davies, J.K. & V. Gabrielsen (eds.) (2005), *Making, Moving and Managing: The New World of Ancient Economies, 323-31 BC*, Oxford: Oxford University Press.

Archibald, Z.H., J.K. Davies & V. Gabrielsen (eds.) (2011), *The Economies of Hellenistic Societies, Third to First Centuries BC*, Oxford: Oxford University Press.

Archibald, Z.H. & J.K. Davies (2011), 'Introduction' in Z. Archibald et al. (eds)., Oxford: Oxford University Press, pp. 1-18.

Akerlof, G. (1970), 'The market for "lemons": quality uncertainty and the market mechanism', *Quarterly Journal of Economics* 84.3, 488-500.

Austin, M.M. & P. Vidal-Naquet (1977), *Economic and Social History of Ancient Greece: An Introduction*, Berkeley & Los Angeles.

Bang, P. (2008), *The Roman Bazaar: A Comparative Study of Trade and Markets in a Tributary Empire*, Cambridge.

Barber, B. & T. Odean (1999), 'The courage of misguided convictions: the trading behaviour of individual investors', *Financial Analyst Journal* November/December 1999, 41-55.

Barber, B. & T. Odean (2001), 'Boys will be boys: gender, overconfidence, and common stock investment', *The*

[95] Granovetter (1985): 485.

Quarterly Journal of Economics 116.1, 261-292.
Benartzi, S. & R. Thaler (2007), 'Heuristics and biases in retirement savings behaviour', *Journal of Economic Perspectives* 21.3, 81-104.
Benartzi, S. & R. Thaler (2013), 'Behavioural economics and the retirement savings crisis', *Science* 339, 1152-3.
Bitros, G.C. & A.D. Karyiannis (2008), 'Values and institutions as determinants of entrepreneurship in ancient Athens', *Journal of Institutional Economics* 4.2:,205-30.
Boardman, J. (1991), *Athenian Black Figure Vases*, London & New York.
Boldizzoni, F. (2011), *The Poverty of Clio: Resurrecting Economic History*, Princeton.
Bresson, A. (1987), 'Aristote et le commerce extérieure', *REA* 89, 217-38.
Bresson, A. (2000), *La cité marchande*. Bordeaux.
Bresson, A. (2015a), *The Making of the Ancient Greek Economy: Institutions, Markets, and Growth in the City-States*, Princeton.
Bresson, A. (2015b), 'Aristotle and foreign trade' (translated by E.M. Harris), in E.M. Harris, D.M. Lewis & M. Woolmer (eds.),, *The Ancient Greek Economy: Markets, Households and City-States*,Cambridge & New York, pp. 41-65.
Brosnan, S.F. & F.M.B. de Waal (2003), 'Monkeys reject unequal pay', *Nature* 425, 297-9.
Cairns, D. (1993) *Aidōs: The Psychology and Ethics of Honour and Shame in Ancient Greek Literature,* Oxford.
Cairns, D. & L. Fulkerson (2015), *Emotions Between Greece & Rome*, BICS Supplement no. 125, London.
Cartledge, P.A. (1998) 'The economy (economies) of ancient Greece', *Dialogos* 5, 4-24.
Cartledge, P.A. (2002) 'The economy (economies) of ancient Greece', in W. Scheidel & S. Von Reden (eds.), *The Ancient Economy*, Edinburgh: Edinburgh University Press, pp. 11-32.
Chang, H.-J. (2014), *Economics: The User's Guide*, London.
Chatzidimitriou, A. (2005), ***ΠΑΡΑΣΤΑΣΕΙΣ ΕΡΓΑΣΤΕΡΙΩΝ ΚΑΙ ΕΜΠΟΡΙΟΥ ΣΤΗΝ ΕΙΚΟΝΟΓΡΑΦΙΑ ΤΩΝ ΑΡΧΑΪΚΩΝ ΚΑΙ ΚΛΑΣΙΚΩΝ ΧΡΟΝΩΝ***, Athens.
Christesen, P. (2003), 'Economic rationalism in fourth-century BC Athens', *G&R* 50, 31-56.
Crockett, M.J., Clark, L., Tabibnia, G., Lieberman, M.D. & T.W. Robbins (2008), 'Serotonin modulates behavioural reactions to unfairness', *Science* 320 no. 5884, 1739.
Davies, J.K. (1981), *Wealth and the Power of Wealth in Classical Athens*, Salem.
Davies, J.K. (2005), 'Gortyn within the economy of archaic and classical Crete', in E. Greco & M. Lombardo (eds.), *La grande inscrizione di Gortyna*, Athens, 153-74.
Davies, J.K. (2015), 'Retrospect and prospect' in C. Taylor & K. Vlassopoulos (eds.) *Communities and Networks in the Ancient Greek World,* Oxford, 239-56.
Davies, J.K. (forthcoming), 'Aristonikos and the fishmongers', in F. Santangelo & E. Bissa (eds.), *Studies on Wealth in the Ancient World*, BICS Suppl. 133, London.
Denes-Raj, V. & S. Epstein (1994), 'Conflict between intuitive and rational processing: when people behave against their better judgement', *Journal of Personality and Social Psychology* 66.5, 819-29.
Denzau, A. & North, D. (1994), 'Shared mental models: ideologies and institutions', *Kyklos* 47.1, 3-31.
Dover, K.J. (1974), *Greek Popular Morality in the Time of Plato and Aristotle,* Indianapolis & Cambridge.
Faraguna, M. (2008), 'Calcolo economico, archivi finanziari e credito nel mondo greco tra VI e IV sec. a.C.', in K. Verboven, K. Vandorpe, K. & V. Chankowski (eds.), *Pistoi Dia Tèn Technèn. Bankers, Loans and Archives in the Ancient World: Studies in Honour of Raymond Bogaert*, Leuven, pp. 33-57.
Fehr, E. & S. Gächter (2000), 'Fairness and retaliation: the economics of reciprocity', *Journal of Economic Perspectives* 14, 159-81.
Fehr, E. & Schmidt, K.M. (2006), 'The economics of fairness, reciprocity and altruism: experimental evidence' in S.-C. Kolm & J. Mercier Ythier (eds.) *Handbook of the Economics of Giving, Altruism and Reciprocity*, Amsterdam: 615-84.
Finley, M.I. (1954), *The World of Odysseus*, London.
Finley, M.I. (1965), 'Technological innovation and economic progress in the ancient world', *The Economic History Review* 18.1, 29-45.
Finley, M.I. (1970), 'Aristotle and economic analysis', *Past & Present* 47.1, 3-25.
Finley, M.I. (1999), *The Ancient Economy*. Updated edition with a foreword by I. Morris, Berkeley, Los Angeles & London.
Fischer, E. (ed.) (2013) *Cash on the Table. Markets, Values, and Moral Economies*. Santa Fe.
Foxhall, L. (2007), *Olive Cultivation in Ancient Greece: Seeking the Ancient Economy*, Oxford.
Gill, C., Postlethwaite, N. & Seaford, R. (eds.) (1998), *Reciprocity in Ancient Greece,* Oxford.

Granovetter, M. (1985), 'Economic action and social structure: the problem of embeddedness', *American Journal of Sociology* 91.3, 481-510.
Hansen, M.H. (2006), *Polis: An Introduction to the Ancient Greek City-State*, Oxford.
Hansen, M.H. (2009), 'Was Sparta a normal or exceptional polis?' in S. Hodkinson (ed.), *Sparta: Comparative Approaches*, Swansea, pp. 385-416.
Harris, E.M. (1993), 'Lending and borrowing' (review of P. Millett, *Lending and Borrowing in Ancient Athens*. Cambridge 1991), *The Classical Review* 43.1, 102-107.
Harris, E.M. (2002), 'Workshop, marketplace and household: the nature of technical specialisation in classical Athens and its influence on economy and society' in P. Cartledge, , E. Cohen & L. Foxhall (eds.), *Money, Labour, and Land: Approaches to the Economies of Ancient Greece*, London: 67-99.
Harris, E.M. (2012), 'Homer, Hesiod, and the "origins" of Greek slavery', *Revue des Etudes Anciennes* 114.2, 345-66.
Harris, E.M. (2013), 'Finley's *Studies in Land and Credit* sixty years later', *DIKE* 16, 123-46.
Harris, E.M. (2015), 'The legal foundations of economic growth in ancient Greece: the role of property records', in E.M. Harris, D.M. Lewis & M. Woolmer (eds.), *The Ancient Greek Economy: Markets, Households and City-States*, Cambridge & New York: 116-46.
Harris, E.M. & D.M. Lewis (2015) 'Introduction', in E.M. Harris, D.M. Lewis & M. Woolmer (eds.), *The Ancient Greek Economy: Markets, Households and City-States*, Cambridge & New York: 1-37.
Henrich, J. et al. (2004), *Foundations of Human Sociality: Economic Experiments and Ethnographic Evidence from Fifteen Small-Scale Societies*, Oxford.
Henrich, J. et al. (2005), '"Economic man" in cross-cultural perspective: behavioural experiments in 15 small-scale societies', *Behavioural and Brain Sciences* 28, 795-855.
Herman, G. (2006), *Morality and Behaviour in Democratic Athens: A Social History,* Cambridge.
Hermann, A. (2010), 'Institutionalism and psychoanalysis: a basis for interdisciplinary cooperation', *International Journal of Pluralism and Economics Education* 1.4, 372-87.
Hill, E. & D. Sally (2003), 'Dilemmas and bargains: autism, theory of mind, co-operation and fairness', Working Paper, University College London.
Hobson, M. (2014), 'A historiography of the study of the Roman economy: economic growth, development, and neoliberalism', in Platts, H., Pearce, J., Barron, C., Lundock, J. & J. Yoo (eds.), *Proceedings of the Twenty-Third Annual Theoretical Roman Archaeology Conference*, Oxford & Philadelphia, 11-26.
Hopkins, K. (1983), 'Introduction', in Garnsey, P., Hopkins, K. & C.R. Whittaker (eds.), *Trade in the Ancient Economy*, London, pp. ix-xv.
Johnstone, S. (2011), *A History of Trust in Ancient Greece*, Chicago.
Jones, D.W. (2014), *Economic Theory and the Ancient Mediterranean*, Malden, M.A., Oxford & Chichester.
Kahnemann, D. (2011), *Thinking, Fast and Slow*, London & New York.
Kahnemann, D., Knetsch, J. & R. Thaler (1986), 'Fairness and the assumptions of economics' *Journal of Business* 59.4, 285-300.
Kahnemann, D. & A. Tversky (1979), 'Prospect theory: an analysis of decision under risk', *Econometrica* 47.2, 263-91.
Kron, G. (1996), *Landed and Commercial Wealth at Classical Athens, 500-300 BC.* Diss. Toronto.
Kuhn, T. (1972), 'Logic of discovery or psychology of research', in I. Lakatos & A. Musgrave, *Criticism and the Growth of Knowledge. Second Edition*, Cambridge: 1-23.
Lawall, M. (2015), 'Transport amphoras, markets, and changing practices in the economies of Greece, sixth to first centuries BCE', in E.M. Harris, D.M. Lewis & M. Woolmer (eds.), *The Ancient Greek Economy: Markets, Households and City-States*, Cambridge & New York: 254-73.
Morris, I. (2004), 'Economic growth in ancient Greece', *Journal of Institutional and Theoretical Economics* 160, 709-42.
McWilliams, D. (2015), *The Flat White Economy*, London.
Morris, I., Saller, R. & W. Scheidel (2007), 'Introduction', in W. Scheidel, I. Morris & R. Saller (eds.), *The Cambridge Economic History of the Greco- Roman World*, Cambridge: Cambridge University Press, 1-12.
North, D. (1992), 'Institutions, ideology, and economic performance', *Cato Journal* 11.3, 477-96.
North, D. (1993), 'What do we mean by rationality?', *Public Choice* 77.1, 159-62.
Nee, V. (2005), 'The New Institutionalism in economics and sociology', in N. Smelsner & R. Swedberg (eds.), *The Handbook of Economic Sociology*, Princeton: 49-74.
Ober, J. (2015), *The Rise and Fall of Classical Greece*Princeton.
Polanyi, K. (1968), *The Economy as Instituted Process*, Stanford.
Postgate, N. (1995), review of Silver (1992), *Vetus Testamentum* 45.3: 423.

Rabin (1993), 'Incorporating fairness into game theory and economics', *The American Economic Review* 83.5, 1281-1302.
Scheidel, W. (2005), 'Real slave prices and the relative cost of slave labor in the Greco-Roman world', *Ancient Society* 35, 1-17.
Scheidel, W. (2010), 'Real wages in early economies: evidence for living standards from 1800 BCE to 1300 CE', *Journal of the Economic and Social History of the Orient* 53, 425-62.
Schofield, M. (1999), 'Plato on the economy' in M. Schofield, *Saving the City: Philosopher Kings and Other Classical Paradigms,* London & New York, 69-81.
Silver, M. (1992), *Taking Ancient Mythology Economically,* Leiden.
Silver, M. (2004), 'Modern ancients', in R. Rollinger & C. Ulf (eds.), *Commerce and Monetary Systems in the Ancient World*, Stuttgart, 65-87.
Simon, H. (1947), *Administrative Behaviour*, New York.
Stewart, R. (2004), *The Places Inbetween*, London, Basingstoke & Oxford.
Stiglitz, J. (2012), *The Price of Inequality: How Today's Divided Society Endangers our Future.* New York.
Sylos Labini, F. (2016), *Science and the Economic Crisis*, Springer: Cham.
Temin, P. (2013) *The Roman Market Economy*, Princeton.
Thaler, R.H. (2000), 'From homo economicus to homo sapiens', *Journal of Economic Perspectives* 14.1, 133-141.
Thaler, R.H. (2015) *Misbehaving: The Making of Behavioural Economics*, London.
Thompson, W.E. (1982), 'The Athenian entrepreneur', *L'Antiquité Classique* 51, 53- 85.
Van Wees, H. (1992), *Status Warriors: War, Violence and Society in Homer and History*, Amsterdam.
Van Wees, H. (2009), 'The economy', in K. Raaflaub & H. Van Wees (eds.), *A Companion to Archaic Greece*, Malden, MA & Oxford: 444-67.
Veblen, T. (1898), 'Why is economics not an evolutionary science?', *The Quarterly Journal of Economics* 12.4, 373-97.
Weber, M. (1968) [1922], *Economy and Society.* Edited by Gunther Roth and Klaus Wittich. Translated by Ephraim Fischoff et al. 2 Volumes, Berkeley and Los Angeles.
Weber, R. & R. Dawes (2005), 'Behavioural economics', in N. J. Smelsner & R. Swedberg (eds.), *The Handbook of Economic Sociology. Second edition*, Princeton & New York, pp. 90-108.
Williamson, O. (2000), 'The New Institutional Economics: Taking stock, looking ahead' *Journal of Economic Literature* 38, 595-613.
Zouboulakis, M. (2014), *Varieties of Economic Rationality: From Adam Smith to Contemporary and Evolutionary Economics.* London & New York.