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IN THE ART OF SCIENCE OF ECONOMICS?**

By

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Do the Values of Economists Matter in the Art and Science of Economics?

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SUMMARY

What role do personal values play in the practice of economists? By means of a survey among economists working inside and outside academia in the Netherlands we present novel insights into their personal value structure, how they differ from the average citizen, and how it impacts their economic views and their methodological choices. Three overarching values summarize the value structure of economists: achievement, serving the public interest, and conformity to rules. Subsequent tests are performed to see whether these values affect: (1) their opinion on economic propositions; and (2) their attitudes towards methodological principles in economics. For the majority of economic propositions personal values matter. Especially the value to serve the public interest has a strong effect on their economic view. Furthermore, it seems that economists who value achievement are the ones who are more likely to embrace mainstream methodological principles: thinking predominantly in terms of efficiency, rationality and competition, believing that economic knowledge is objective and transparently produced and in agreement with Milton Friedman's view on positive economics. Female economists are at some notable points less convinced of market solutions and have more trust in the government in serving the public interest.

1. INTRODUCTION

“All scientific work has to be based on value premises. There is no view without a viewpoint.”
Gunnar Myrdal (1972)

Economists have been trained to think that their science should be *Wertfrei*, free of value judgements. Economics is concerned with ‘what is’ rather than ‘what ought to be’ (Coats, 1964, Colander, 2001, Heilbroner, 1973). In large part, this stance may be derived from reading Lionel Robbins’ classic book *An Essay on the Nature and Significance of Economic Science* (1932). The stance that values do not and should not enter the education of economists is also displayed in modern-day textbooks. Textbooks offer a menu of models and rarely entertain thoughts on the actual policy decision making and restrict normative ideas to the body of welfare economics. Still, economists do make policy recommendations involving value judgements or at least tacitly invoke ethical principles in deriving assessment about policy (Wight, 2017, Heilbroner, 1973) and some recommendations of economists may unwittingly be affected by their personal values. Because of its tacit nature it is hard to see or detect whether values actually matter, i.e. how do economists weight their values in making judgements. To the best of our knowledge we are the first to analyze the personal value structure of economists and examine how these values affect making statements and stating attitudes to methodological principles in economics. A set of personal values are measured and together form a system of value priorities as defined by Schwartz (1994). In doing so we present the underlying value system of economists, in which the such personal values as self-interest or the freedom to choose conflict with serving the public interest and obeying rules, or in which the value of conformity conflicts with openness to change and innovation.

The intermingling of facts, theory and values is practiced by most economists - even Lionel Robbins (Colander, 2009) - when they judge a situation or try to give policy advice. It is essentially the art of political economy, as John Neville Keynes (1891) once described this grey area between positive and normative economics, and in this area values play a prominent role (Colander and Su, 2015). However, these insights do not seem to be shared by most academic economists. Some ascribe these blind spots to the fact that modern economists lack a firm historical education (Colander, 2011, Blaug, 2001) or they look down upon economic methodology (Lawson, 1994). Or perhaps because the professionals that are most well adapted to studying this aspect – economic methodologists - stick to only criticizing economists. Indeed the lament of Hausman (1989) on the state of economic methodology is

directly related to this point and captures the intentions of the current paper: “Although methodologists may find much to criticize, they had better begin by understanding as thoroughly as they can how economists go about their business and why they do what they do.”

Most economists would claim that their judgement or advice is based on science, without invoking any value judgements. In other words, the ingredient of values does not enter the equation as it would make economists appear less ‘scientific’ because it would appear that economic policy is just a matter of taste. This paper tries to uncover the role that values play in making positive and normative claims about the economy as well as about attitudes towards some methodological principles in economics and scientific norms, and hence it is written in exactly the spirit that Hausman (1989) points at. When economics is what economists do, one can learn a lot from the flourishing industry of the economics of economics or the sociology of knowledge literature (Boumans and Davis, 2015). Numerous authors over time have added insights into how the economics profession functions, ranging from the sociology and institutional structure of the economics profession (Fourcade, 2006, Fourcade, 2009, Coats, 1997, Coats, 2005, Frey and Eichenberger, 1993) to the registration of the consensus among economists (Gordon and Dahl, 2013, Frey et al., 1984), a focus on elite economists and their education (Klamer and Colander, 1990, Colander, 2005), or discovering how an economic education changes behavior (Frey and Meier, 2003). However, none of these studies have taken on the issue of values of economists directly¹, and in modern tracts on economic methodology (Boumans and Davis, 2015) the issue of value-laden economics is an important issue, but empirical proof of how the economics profession is affected by this issue is conspicuously absent. In short, this paper focuses on a lacuna in the economics literature that might improve our understanding of “how economists go about their business”.

The method of analysis is a survey among economists, working (or having worked) inside and outside academia in the Netherlands. The Netherlands is a country that has achieved a top position within the economics hierarchy in Europe (Lubrano et al., 2003, Kalaitzidakis et al., 2003) and it could function as appropriate case study for other countries as well as most universities outside the Ivy League have similar ambitions. Furthermore, one should that note of the fact that economics at Dutch universities is certainly no longer a Dutch affair: 43

¹ Although Fuchs et al. (1998) come close to this approach. They infer from an empirical study of American economists’ views on parameters, policies and values that “there is a strong correlation between economists’ policy positions and their values” (p. 1415). They acknowledge that their approximation of values is imperfect and they urge for further research on “what determines these values?” The current study offers an approach to answer this question.

percent of the Dutch economics faculty consists of foreign born members ([VSNU](#), 2018) and most classes are taught in English.

The traditional null hypothesis to put to the test would be the one that is tacitly taught in economics namely that economic science is free of value judgements. The absence of value judgements will be operationalized by us as the thesis that personal values of economists do not affect their views or attitudes. We will test this hypothesis by focusing on two sets of variables: (1) the positive or normative statements made by economists as they are often used in studies on the consensus of dissensus among economists (Frey et al., 1983, Alston et al., 1992, Fuller and Geide-Stevenson, 2007); (2) their attitude towards methodological principles in economics. Because the measurement of personal values relies on the value characterization of Schwartz (2012); a method that is often applied to European or worldwide surveys of individual countries, this survey among economists also offers the possibility of comparing the differences between economists and the average citizen. It is sometimes claimed that economists have estranged themselves from the general public or laypeople, where laypeople often stress equity or fairness whereas economists tend to stress efficiency (Rees, 1993), and as Sapienza and Zingales (2013) show the opinion of the general public differs quite markedly from economists on technical issues and the reason for this divergence is that laypeople do not trust every link in the economist's logic as actors like governments or market participants are distrusted. Johnston and Ballard (2016) show in the different setup how economists in the US are met with distrust when it concerns highly salient and polarized issues.

This paper makes three novel contributions. The first contribution is that personal values of the economists differ distinctly from the average citizen: economists in general care less about traditions or rules, they care less about the environment and they are more set on serving the public interest. At some points the academic economist differs from the economist working outside the walls of the university and applying economics in everyday life (for short 'applied economist'). In particular creativity or innovation and being successful is valued far more by the academic economist. In other words, the academic economist is more oriented towards individual self-enhancement than the applied economist. The second contribution is the observation that values matter when it comes to making economic statements, although the influence of values is conspicuously absent when it concerns statements on monetary issues. And the third contribution is a demonstration that personal values also affect the attitude of academic economists towards methodological principals, norms in science and the importance attached to assumptions in economic theory. Self-centered economists who prize

‘achievement’ are more likely to have ‘mainstream’ ideas of economics as a science: thinking solely in terms of efficiency, believing that economic knowledge is objective and transparently produced and in agreement with Friedman’s view on positive economics. Furthermore, they also attach greater importance to the assumption of rationality and perfect competition.

The setup of this paper is as follows. In section 2 we discuss how values of economists may impinge on their world view and their attitudes towards scientific principles applied in economics. In section 3 we will present the method and data used to test the relationship between values and economic and methodological statements. And in section 4 we present the results of these tests. Section 5 concludes with a short summary and discussion.

2. THE VALUES OF ECONOMISTS

Values in general express what people believe to be good or bad or what they believe that should or should not be done. In social psychology it is well established how important values are. They not only guide us to select actions and interpret events, values also affect people’s focus of attention, the way they interpret information and values can explain their attitudes, decisions and behavior (Verplanken and Holland, 2002, Schwartz, 2012). If this insight is true, values may also help to interpret how economists make judgements and why their attitudes and decisions in their profession differ. Differences of opinion among economists can exist with respect to how they think about the functioning of markets, governments, families and its agents. These evaluations may to some extent be based on personal valuations about what an economist finds good or bad. For instance, some may see the freedom to choose and the pursuit of enlightened self-interest as the cornerstone of making capitalism work. Other economists may see pervasive market failures in the ordinary business of life and value the public interest more highly. Although one may believe that economists refrain from invoking their personal values in judging economic phenomena, one cannot rule out that economists will use this source in judging events, policy actions and interpreting information.

Modern economists may perceive values as the use of an extra-scientific source in economic discourse. Something that should not belong in economics as a science. Samuelson (1947) is quite clear in his classic *Foundations of Economic Analysis* why values do not belong in the science department: “Wishful thinking is a powerful deterrent of good analysis and description, and ethical conclusions cannot be derived in the same way that scientific hypotheses are inferred or verified.” (p. 220). However, the use of values is, of course, not a novel element. Political economists of the past, like Mill and Senior, made a distinction

between the art and science of political economy. They acknowledged the science of economics is not sufficient to give policy advice. Senior (1836) went even to so far to state that “the business of the Political Economist is neither to recommend nor to dissuade, but to state general principles, which it is fatal to neglect, but neither advisable, nor perhaps practicable, to use as the sole, or even the principle guides to the actual conduct of affairs.” (Senior, 1836, p. 2-3) In moving from the science to the art of economics extra-scientific elements creep in, such as ethical premises. Later, John Neville Keynes (1891) made a more refined distinction in three sections: (1) a “positive science” with the object of establishing *uniformities*; (2) a “normative or regulative science” with the object of determining *ideals*; and (3) the “art” of economics, a system of rules for the attainment of given ends and the economists who preoccupied with this art tried to formulate “*precepts*” or, in modern-day terms, policy advice. However, with the appearance of Robbins (1932’s essay it became more or less an article of faith to refrain from value judgements and the proper economist dedicated to the cause of science, high theory, should focus on the task to understand choice and behavior as reflection of scarce means in search of given ends. What most economists forgot (see, e.g., Ng (1972)) was that Robbins was preoccupied in his *Essay* with ‘high theory’ and economics as a science and not the art of economics, as Colander (2009) argues.

Paying attention to the fact that economists have values is done in a relatively new strand within economic methodology that has called into question economics’ scientific character (Wilber, 1994). Part of this literature deals with the impact of ethical judgements on economics as a science. According to Wilber there are two tenets to the value neutrality argument. The first tenet is the taught to most students and is based on the belief that one cannot derive a normative statement from a positive statement (better known as Hume’s guillotine, see Blaug (1992), fact and value, descriptive and prescriptive statements need to be separated, cut by the ‘blade of the guillotine’. In the world of John Stuart Mill this separation was quite evident as political economy was understood to be a separate but inexact science. To derive policy recommendations based on this narrow view would be a sign of negating the complexity of society. The second tenet supports the first tenet by making the assumption that economists have objective access to the empirical world through their sense experience, and because of this access economists “as scientists need not concern themselves with ‘what ought to be’.” (Wilber, 1994). This second tenet is the weak spot. This objectivity argument has been rejected by Kuhn (1970). He argued that the empirical world can only be known through the filter of a theory; facts about the real world are thus always theory laden. Worldviews influence the paradigm with which one works and value judgements are closely associated

with one's own worldview. Theories must remain coherent with this world view and this world view shapes the questions asked, models used, methods chosen, facts presented, etc. In short, this is exactly what Myrdal (1972) was arguing about when he said that values permeate in every corner of economic science:

"...valuations enter into research from the start to the finish: determining the approach, the definition of the concepts, used and thus the facts observed, the way of drawing inferences, and even the manner of presenting conclusions reached." (1972, p. 162)

In that respect one can understand why Myrdal (1973) was very supportive of studying the sociological and psychological mechanisms at work within the economics profession and to see how economists go about in their daily activities to uncover, what McCloskey (1983) calls, the rhetoric of economics. A rejection similar to that of Myrdal can be found in Boulding (1969) who argues that "knowledge of the social sciences is an essential part of the social system itself, hence objectivity in the sense of investigating a world which is unchanged by the investigation of it is an absurdity." And he goes on to claim why values matter: "as science moves from pure knowledge towards control, that is, toward creating what it knows, what it creates becomes a problem of ethical choice, and will depend on the common values of the societies in which the scientific subculture is embedded." (p.3) In short, values permeate every aspect of the way economists work. We will therefore focus on the central hypothesis of this paper by the following (null) hypothesis to reflect the tacit belief among economists (cf. Colander and Su (2015)) that values do not matter in economic science:

Hypothesis on the values-views nexus: *The personal values of economists do not affect either their positive or normative economic views.*

The second channel through which values permeates economics concerns the attitudes towards methodological principles and the norms of science. The reason for including this channel is simply related to the argument of Myrdal (1972) that values permeate in every corner of practicing economics and not just economic judgements as in the first hypothesis. The assumption is that ascribing to a particular way of practicing economics – one's methodological principles - may also be influenced by one's values. Embracing self-centered values may be traded off against the value of serving the public interest of science and this

process could be stimulated in the direction of self-centeredness as most universities use an up-or-out system to grant tenure and prizes. The key factor in this system are publications and citations generating a publish-or-perish culture (Van Dalen and Henkens, 2012, Stephan, 2012a, Stephan, 2012b). This process could also affect the way academic economists interact with the outside world. It could result in internally directed world views in which academic economists no longer have an ambition to function as gatekeepers of a public debate. Some note that this internal directedness (Fourcade et al., 2015, Colander, 2015) may well be the Achilles' heel of economics. A case in point is the recent Great Recession. The British Academy summarized the failure of the community of economists in a letter to the Queen Elizabeth (dated 22 July 2009) in replying to her question "Why had nobody noticed that the credit crunch was on its way?" The official reply of the economists can be summarized as: "[it was] principally a failure of the collective imagination of many bright people [...] to understand the risks to the system as a whole." In his antagonistic style Krugman (2009) went one step further and challenged (mainly) economists with a Chicago background on sowing the seeds for the crisis by making economics a beautiful but irrelevant science. Before the crisis economics seemed to have produced a solid consensus. Even Paul Krugman could not resist in his textbook *Macroeconomics* in 2006 pointing at the modest differences among macroeconomists: "The clean little secret of modern macroeconomics is how much consensus economists have reached over the past 70 years." However, the strong consensus – which the outside world often perceives as a strength – turned out to be a false consensus. Krugman (2009) changed his mind when the credit crunch was all out in the open and according to him, economists – in particular those from the University of Chicago - had mistaken mathematical beauty for truth and have lost sight of reality in assessing the state of economies. The criticism of Krugman and the ensuing debate (Cochrane, 2011, Colander, 2011) suggests that methodological principles on the application of theory to policy lay at heart in the answer to how economists got it wrong. Applying economic theory requires a broader perspective than is conventionally taught or practiced. Especially the way economists have come to practice positive economics, in macroeconomics and in finance, has blinded economists, according to Krugman. The essay on *The Methodology of Positive Economics* by Friedman (1953) was for decades mandatory reading among Chicago economists but it was also a controversial essay among methodologists and economists at, e.g., MIT, Harvard and Berkeley. To stay away from value judgements Friedman downplayed the role of values very early on in his essay: "differences about economics policy among disinterested citizens derive predominantly from different predictions about the economic consequences of taking action [...] rather than from

fundamental differences in basic values.” (p. 5). Instead he focuses on developing positive economics: theories should be judged by their predictions not by the realism of their assumptions. This view on economic methodology has ever since its publication been fiercely debated. To name one criticism that is relevant in this regard is the objection made by Hausman (1994). He argues that the instrumentalist approach of Friedman precludes serious research in examining the realism of assumptions. ‘Why look under the hood?’ is the implicit message of Friedman. A different critique is expressed by Coase (1994) who remarks that the essay of Friedman is not so much a positive theory but a normative theory: “What we are given is not a theory of how economists, in fact, choose between competing theories, but [...] how they ought to choose.” Economists - according to Coase - do not use “valid and meaningful predictions about phenomena not yet observed” as their sole criterion. Many economists do not test theories in their papers at all. Most of the work of pure theory economists consists of “logical constructions based on assumptions about human nature”. And their scientific efforts can best be described as “measurements of an effect, the nature of which was already well established but of which the magnitude was unknown” (Coase, 1994). Economists as many other social scientists are unsophisticated positivists or as Colander and Su (2015) describe the modern-day’s economist interpretation of positive economics: “they are collecting and analyzing data to determine robust empirical relationships that can help to guide policy decisions.”

The second part of this paper aims first to discover the attitudes economists share with respect to their agreement with scientific working principles as they are sometimes summed up in the Mertonian norms of science (Merton, 1979) but also with methodological principles specific to economics. The second null hypothesis that we will use as our guide is the following:

Hypothesis on the values-principles nexus: *The personal values of economists do not affect methodological principles in understanding modern-day society.*

3. METHOD AND DATA

To assess the personal values of economists data were collected by means of an internet survey (in English), distributed among faculty members of all Dutch universities with an economics department: 23% of this subsample is female and 33% were born outside the Netherlands. In line with privacy regulations, the survey was distributed by the deans of the separate departments among its faculty with a supporting email letter. The group of

respondents did not only include tenured faculty, but also non-tenured personnel, like PhD students and tenure track assistant professors or research or teaching faculty with fixed term contracts. Next to the group of economists affiliated with at a university we also distributed the same survey (but in Dutch) among the members of the Dutch Royal Economic Society (8% female and 4% born outside the Netherlands). Actual distribution was done by the office of the Royal Society, also with a supporting letter of the board of the society. These two samples are used to make a comparison between so-called academic economist – those working at a university or an affiliated research institute – and what we call an applied economist – those working outside the university, for example at private firms, banks, pension funds, ministries or institutes like the Central Planning Bureau. Insights on the applied economist are gathered from the Royal Economic Society sample. However, to make this sample a true reflection of practitioners we have allocated the members who are affiliated with a university to the ‘academic economist’ sample. The field work was carried out between November 2015 to January 2016 and the overall response rate was 24 percent (which is comparable to similar expert surveys (Ricketts and Shoosmith, 1992, May et al., 2018)). The survey contained a substantial number of questions shedding light on the norms, values, the importance of assumptions, and attitudes of economists as well as their opinions on the positive and normative economic statements.

To assess the importance and impact of values on the way economists look at the world one needs to have a stable set of measures. The social-psychological theory of universal aspects in the content and structure of personal values of (Schwartz, 1994) has proven to offer reliable measures for uncovering the values citizens and may in that respect be of use to measuring the values of economists. The theory of Schwartz adopts a conception of values that are implicit or explicitly incorporated in the writings of many theorists and these features encompass that the values are beliefs. Values as Schwartz (1994, p. 21) defines them are “desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity.” And as he goes on to stress the usefulness of these values: “Implicit in this definition of values as goals is that (1) they serve the interests of some social entity, (2) they can motivate action - giving it direction and emotional intensity, (3) they function as standards for judging and justifying action, and (4) they are acquired both through socialization to dominant group values and through the unique learning experiences of individuals.” However, separate values may affect each other in a positive or negative manner. As Schwartz (2012) explains: “The tradeoff among relevant, competing values guides attitudes and behaviors. [...] Values influence action when they are relevant in the

context (hence likely to be activated) and important to the actor.” The number of questions to gain an insight into the structure of values of economists was limited to 15 items. For each personal value we used the question as formulated in the European Social Survey: “We would like to ask you about some of your personal values. We will briefly describe some people. Please read each description and tell me how much each person is or is not like you. It is important to this person: [e.g., that everyone should be treated equally; and have equal opportunities in life]” The answer categories are: (1) Not like me at all; (2) Not like me; (3) A little like me; (4) Somewhat like me; (5) Like me; (6) Very much like me.

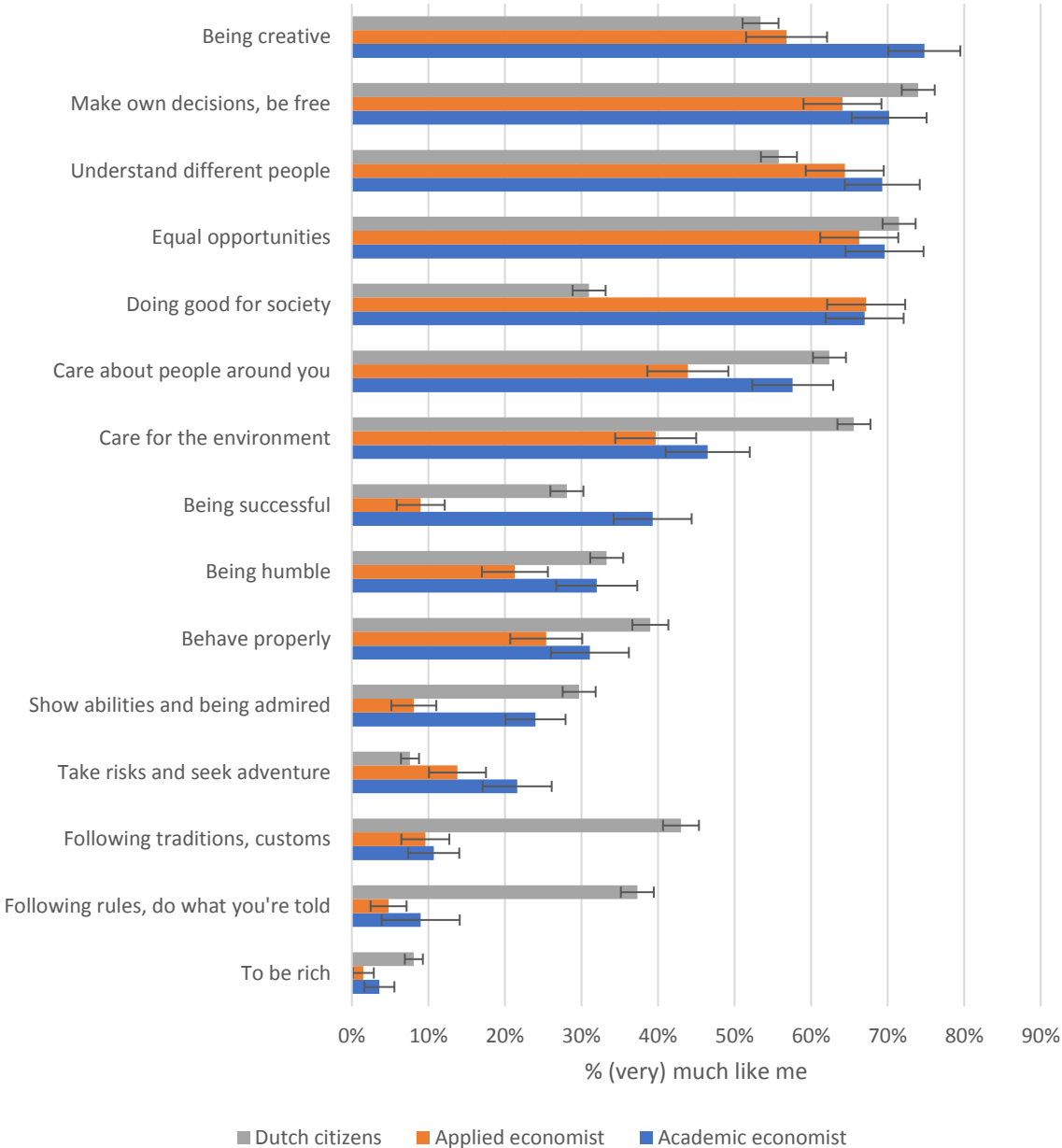
Because we used identical questions in the economists’ survey we can also examine whether they differ from the average Dutch citizen. Whether these differences are a cause of selection or socialization of economists to their dominant group values cannot be examined with the current survey. The personal value questions were taken from the European Social Survey (2014) and the World Values Survey (2012). Figure 1 gives an overview of the values which Dutch economists – inside and outside academia - hold and these figures are compared to the population average in the Netherlands.

There are a number of large differences between the average economist and the average Dutch citizen. Being creative is a value cherished by university economists, closely followed by being independent and having the freedom to choose. However, for the applied economist being creative does not differ much from the average citizen and making one’s own decisions is more likely to be part of the value structure of the average citizen compared to the practicing economist. However, the average economist is far more likely to be someone who wants to do good for society than the average citizen. Another strong difference is to be found at the bottom of the list: the average Dutch economist is far less prone to be someone who values traditions and conform to rules or to reverse this stance: economists do not like the status quo perhaps because of their training they are always on the lookout for improvements.

The benefit of measuring and comparing personal values helps one can to see some characteristics that defy the stereotypes that one comes across in media and public debates about economists. To name a few outcome that are in contrast with common stereotypes: economists are not a group that longs to be rich, and more surprising, the desire to take risks is severely limited. Economists, however, say that they are persons who listen to what other people say. This may be in contrast to the image of the economist as some ivory tower professional, or as someone who is focused on internal debates (Fourcade et al., 2015). It is however striking that the average citizen cares more about the environment than the average

economist. This finding lends support to the plea of Raworth (2017) to think like a 21st century economist, who laments the mainstream economist neglecting the environment.

Figure 1: Values of economists and the average citizen, ranked by values of academic economists (% reporting that specific values are “(very) much like me”)



(a) The opinions of citizens are based on Dutch results of the European Value Survey (2014-2015, version ESS7e02_1) with the exception of the values of ‘doing good for society’ and ‘Taking risks and seeking adventure’ which are based on the World Value Survey (2012). Confidence intervals in the figure are set at the 95% level.

To discern the most dominant values among economists we will carry out an exploratory factor analysis. In the appendix to this paper (Table A1) one can find the three factors which summarize more or less the information that is in the set of 15 individual items. The first factor consists of the three items being rich, successful and admired (with scale reliability factor Cronbach $\alpha = 0.79$). In the analysis of Schwarz (2012) this is a factor that is a mixture of what he calls ‘achievement’ and ‘power’. The second factor consists of the five items doing good for society, helping others, desiring equal opportunities, listening to others and caring about the environment ($\alpha = 0.71$). According to Schwarz this is a factor that is a mixture of what he calls ‘benevolence’ and ‘universalism’. And finally the last factor consists of four items: behave according to rules, behaving properly, following traditions, and being humble ($\alpha = 0.66$); a factor that is a mixture of ‘conformity’ and ‘tradition’. For our purposes we will use these three (6-scale) factors and the summary statistics for these variables as well as the other explanatory variables are presented in Table 1 for academic and applied, i.e. economists who work or have worked at a university or outside the university.

Table 1: Descriptive statistics of key explanatory variables used in the analysis

	Academic economist		Applied economist*	
	Mean	Standard deviation	Mean	Standard deviation
Values (1-6 scales)				
Achievement	3.38	0.95	2.51	0.95
Public interest	4.67	0.64	4.44	0.64
Conformity	3.32	0.87	3.05	0.87
Gender (male = 0)	0.21	0.41	0.08	0.27
Age (in years)	40.84	12.72	58.48	13.52
Foreign born (born in the Netherlands = 0)	0.31	0.46	0.04	0.19
Sample size (N)	329		335	

* Both samples includes economists who are retired, but as in the case of universities are still affiliated with the university. The applied economists are economists who work (or have worked and are retired) outside the domain of the university.

Based on these averages one can say that the average Dutch economist is moderately focused on individual achievement or success, firmly dedicated to the public interest and a non-conformist, someone who does not care much about traditions or the status quo. It is hard to say whether the first characteristic is a widely shared trait among economists in general as

there are no comparable data to check this. One can expect that it might be very different at Ivy League institutions, where the drive towards success is higher. The last two characteristics – focus on public interest and a drive to change - do however seem plausible as market failures are perceived by most economists to be the rule in everyday life and hence a keen interest in the public interest is generally present, although some of this stance is wearing off, due to the professionalization of academic economics (Fourcade, 2009, van Dalen and Klamer, 1996, Klamer and Colander, 1990).

4. DO VALUES MATTER IN THE ART OF ECONOMICS?

The key question is, of course, whether the above mentioned values of economists affect their outlook on economic life. To bring this in full view a list of statements is used most of which have been used before in studies on the consensus of economists (Frey et al., 1983, Frey et al., 1984, Klamer and Colander, 1990, Colander, 2008). It consists of a set of normative and positive statements, which makes this set well suited to see whether values matter in stating an opinion in economics. *A priori* one would expect that values matter quite distinctively in questions with a strong normative overtone and less so in pure empirical questions. But, of course, in actual practice it may be hard to make a clear-cut distinction between normative and positive statements as normative statements will probably be affected by the way an economist perceives the world to work. As Fuchs et al. (1998) suggest: “If most economists are consequentialist [...] differences in values could reflect differences in judgments about the consequences that flow from them” (p. 1415). The list of outcomes (see Table 2) displays the range of consensus or agreement and to facilitate reading, the statements are ranked in terms of (full) agreement.

Among the theses on which consensus is high one can see that economists clearly perceive fiscal policy as an effective stabilizer, import tariffs as a source of deadweight costs, the inefficiency and instability of financial markets (or better disagreement on its efficiency and stability), and on the question of capitalism versus socialism economists will give their vote to capitalism. Economists as a group are, however, in serious doubt about the benefits of the euro and the monetarist statement that inflation is primarily a monetary phenomenon. Compared to earlier surveys among economists (Van Dalen and Klamer, 1997) some of these strong outcomes must have been the result of the Great Recession.

Table 2: Economic views and judgements of economists, ranked by agreement ((fully) agree), The Netherlands, 2016

Theses:	Fully disagree	Disagree	Neither agree, nor disagree	Agree	Fully agree	Don't know
1. Fiscal policy can be an effective tool in stabilizing the economy	1.1	4.1	9.0	60.0	18.3	7.6
2. A market society generates in practice more welfare than a socialist society.	1.1	5.6	15.4	44.4	29.9	3.6
3. Import tariffs and quotas decrease economic welfare	0.7	8.8	15.8	51.3	19.8	3.6
4. The income distribution in developed countries should be more equal	3.8	17.1	22.3	37.4	16.5	2.9
5. The capitalist system has an inherent tendency towards crisis.	3.6	16.3	23.0	37.6	13.4	5.9
6. Emission taxes offer a better approach to decrease pollution than the imposition of pollution ceilings	3.2	14.5	20.8	38.1	12.4	10.9
7. Expansionary monetary policy is an effective tool in fighting recessions	3.2	17.9	24.9	38.3	6.6	9.1
8. In general, the benefits of immigration are larger than the costs for a host country.	2.9	14.4	31.6	32.5	8.8	9.8
9. A minimum wage increases unemployment among young and unskilled workers	3.4	24.9	25.2	34.4	6.2	6.0
10. The Euro and the EMU offer a superior mechanism to a regime of floating exchange rates in separate European countries	5.9	26.0	25.3	26.4	7.8	8.5
11. Inflation is primarily a monetary phenomenon	3.8	34.4	20.0	27.6	5.5	8.8
12. Financial markets are inherently stable	21.7	43.7	11.9	14.0	4.6	4.1
13. Financial markets accurately assess the value of stocks at their intrinsic value	27.1	49.5	13.0	4.6	1.0	4.8

Although the outcomes in Table 2 are interesting as they stand, we are at this point interested in how personal values of economists affect their opinion. To this effect for each statement an ordered logit analysis is carried out to explain the opinion and in particular the effects of the three value factors. However, we have also added two other factors in the table, namely the culture of the work place of an economist and the gender of the economist. Usually the research on economists exclusively focused on those working or studying inside the walls of academia, but rarely those outside those walls, the people who apply economics.

Table 3: Explaining economic views and judgements by personal values and work environment of economists (working inside or outside academia)

Theses:	Achievement	Values: Public interest	Conformity to rules	Work environment Applied economist (academic =0)	Gender (male = 0)
1. Fiscal policy can be an effective tool in stabilizing the economy	0.04 (0.09)	0.51** (0.13)	-0.19* (0.10)	0.66** (0.22)	0.11 (0.26)
2. A market society generates in practice more welfare than a socialist society.	0.41** (0.09)	-0.36** (0.12)	-0.03 (0.09)	0.42* (0.19)	-0.93** (0.23)
3. Import tariffs and quotas decrease economic welfare	0.35** (0.09)	-0.20† (0.11)	-0.09 (0.09)	0.86** (0.20)	-0.71** (0.23)
4. The income distribution in developed countries should be more equal	-0.42** (0.08)	0.84** (0.11)	-0.15† (0.09)	-0.26 (0.18)	0.08 (0.22)
5. The capitalist system has an inherent tendency towards crisis.	-0.13 (0.09)	0.50** (0.11)	-0.24** (0.09)	-0.00 (0.19)	-0.15 (0.22)
6. Emission taxes offer a better approach to decrease pollution than the imposition of pollution ceilings	0.04 (0.09)	0.33** (0.11)	0.01 (0.09)	0.09 (0.19)	0.10 (0.23)
7. Expansionary monetary policy is an effective tool in fighting recessions	0.12 (0.09)	0.16 (0.11)	-0.03 (0.09)	-0.40* (0.19)	-0.73** (0.22)
8. In general, the benefits of immigration are larger than the costs for a host country.	-0.15† (0.09)	0.38** (0.11)	-0.23** (0.09)	-0.04 (0.20)	-0.53* (0.23)
9. A minimum wage increases unemployment among young and unskilled workers	0.24** (0.08)	-0.37** (0.11)	0.13 (0.09)	-0.11 (0.19)	-0.52* (0.23)
10. The Euro and the EMU offer a superior mechanism to a regime of floating exchange rates in separate European countries	0.13 (0.09)	-0.06 (0.11)	0.04 (0.09)	-0.15 (0.19)	0.12 (0.22)
11. Inflation is primarily a monetary phenomenon	0.08 (0.09)	0.11 (0.11)	0.19* (0.09)	-0.13 (0.19)	-0.27 (0.22)
12. Financial markets are inherently stable	0.10 (0.08)	-0.20† (0.11)	0.17† (0.09)	0.66** (0.19)	0.07 (0.22)
13. Financial markets accurately assess the value of stocks at their intrinsic value	0.18* (0.09)	-0.61** (0.12)	0.22* (0.09)	0.18 (0.20)	0.36 (0.24)

Note: estimated by means of ordered logit, age and country of birth of respondents are controlled for. The category 'don't know' is not included in the analysis.

† p < 0.10; * p < 0.05; ** p < 0.01.

It is an open question whether the economists in practice differ from the academic economist. Gender is added to our analysis to see whether male and female economists differ in their outlook (May et al., 2018, May et al., 2014).

The most obvious and important finding that can be distilled from Table 3 is that values do matter or, at least, one cannot rule them out. Values matter not for every domain of economic thought or with equal force, but clearly the values that economists affect their view of the world. If we use as a cut-off point the significance level of 5% than one could say that values matter in 10 out of the 13 statements. Besides this observation, the work environment of an economist also matters: the economist working in the field of applied economics differs significantly from the economist working in academia in six out of the 13 statements. In particular, the practicing or applied economist is more persuaded than his academic colleague that import tariffs decrease economic welfare, that fiscal policy is an effective stabilization tool and that financial markets are stable.² When we turn to the aspect of gender, female economists for the majority of statements agree with male economists, but for five of the 13 statements female economist clearly have a different view, although it is hard to find a common element. If one had to name an overarching theme in what unites the female outlook, it would perhaps be a distrust for (global) market forces. This is most vividly seen in the statement on whether a market society generates more welfare than a socialist society, where women economists show clear distrust compared to male economists.

The coefficients of the ordered logit analysis in Table 3 cannot be easily interpreted and to facilitate the interpretation we have presented a simulation for one statement that economists would deem 'normative' and one they would view as 'positive', and see how the opinion changes for five different types of economists, depending on a combination of value properties (see Table 4). If we take the average economist (column 1) as our benchmark it becomes evident that the individual factors (column 4-6) can forcefully shift an opinion. This applies especially for these two statements by looking at the degree by which an economist values the public interest. But if one combines these values in types of persons that one can easily imagine, the force of values becomes overwhelming. For instance, in column 2 we depict an economist who is very much focused on achievement and power, perhaps a bit vain as he or she likes to be admired, who does not care much for the public interest or the people

² In the appendix to this paper (Table A2) one can find the same analysis but this time with the conventional set of variables representing the typology of personal values of Schwartz (2012). Most of the effects found in Table 2 can be found in the appendix, with values of universalism, power, achievement and conformity are the most important driving forces behind economists' statements. However, the reliability of the scales is low and therefore we from this point on refer only to the analysis based on the three derived factors.

around him/her and who does not care much for traditions or existing rules or traditions. In short, a profile that one sometimes comes across in business leaders who get mixed up in formulating economic policy or giving advice.

Table 4: The impact of values on the economist's positive and normative viewpoints

Thesis: income inequality should be decreased (thesis #4)						
Opinion:	Sample averages	Profile of economist:				
		Achievement= high; Public interest and conformity= low	Achievement= low; Public interest and conformity = high	Achievement = high	Conformity = high	Public interest = high
	(1)	(2)	(3)	(4)	(5)	(6)
Disagree completely	0.03	0.56	0.01	0.10	0.05	0.01
Disagree	0.17	0.35	0.04	0.34	0.22	0.06
Agree nor disagree	0.23	0.06	0.09	0.27	0.26	0.12
Agree	0.39	0.02	0.39	0.24	0.35	0.42
Completely agree	0.18	0.00	0.48	0.06	0.13	0.40
Total	1.00	1.00	1.00	1.00	1.00	1.00
Thesis: Net benefits of immigration are positive (thesis #8)						
Disagree completely	0.03	0.11	0.03	0.05	0.06	0.02
Disagree	0.16	0.35	0.14	0.23	0.25	0.10
Agree nor disagree	0.34	0.34	0.33	0.37	0.37	0.28
Agree	0.37	0.17	0.40	0.29	0.26	0.44
Completely agree	0.10	0.03	0.11	0.06	0.05	0.15
Total	1.00	1.00	1.00	1.00	1.00	1.00

Note: the sample averages differ from the results presented in Table 2 because the 'don't know' category is left out of the analyses. Simulated probabilities do not always sum up to 100 due to rounding errors.

This type of economist is very much related to the insights generated by Frank (2016) who shows that people who neglect the role played by luck in success and who perceive all their achievements as being self-made are also the people who tend to ignore market failures and who don't support public measures to correct those market failures. And as shown in Table 4, this type of economist is very much set against decreasing income inequality and disagrees that immigration generates positive benefits to an economy. Things become quite different for the economist whose profile is the mirror's image of the previous type: someone who does not care much for recognition, richness or success, who values the public interest and who respects rules and traditions. In short, this profile would fit the textbook civil servant or the timid academic toiling away in the ivory tower who is careful to propose radical policies. This economist would very much favor income redistribution and firmly believes that immigration is beneficial for host countries.

5. DO VALUES AFFECT THE SCIENTIFIC PRACTICE OF ECONOMISTS?

John Maynard Keynes once stated that “Economics is a science of thinking in terms of models joined to *the art* [my italicization] of choosing models which are relevant to the contemporary world.” In other words, the science of economics is also an art, an act that is not directed by some iron-clad rules but a creative act in which values are bound to play a role. And in choosing these models economists may be led by a common value system on what type scientific norms and methods are seen as good practice. To check whether this is true for the group of economists observed we asked the economists to give their opinion on a set of statements concerning the scientific norms and methodological principles. The answers to survey questions in themselves shed light on what type of model or what type of scientific practice economists today believe is ‘scientific’. But for each type of information we also want to test whether personal values enter at this stage and in a way this may help to see whether the lens through which economists view the world is affected by values.

Norms in science

One of the important assets of a science is the common value system. When scientists talk about how they go about in practising their profession they implicitly or explicitly refer to scientific norms or beliefs about the nature of science. Some of these norms are embodied in the Codes of conduct that some economists or associations have urged for. Table 5 contains some of those norms and beliefs, ranked by level of (full) agreement.

The first statement concerning the statement ‘knowledge is contested and corrected by peers’ was once formulated by Merton (1979) in 1943, and it refers to organized scepticism. According to Merton, “detached” critical scrutiny is central to both scientific methodology and institutions. A high level of agreement can be registered as 67 percent of the economists believe that science works in this manner. This outcome may raise some surprise, because the empirical literature on the existing peer review systems in journals (cf. Osterloh and Frey (2015) suggests that this system is far from perfect.

Other statements that raise a high level of agreement can be found at the bottom of the table where the majority of economists disagree with the propositions. Most disagree with Friedman’s positive methodology: the view that prediction is the true test of an economic theory: 64 percent disagree and only 22 percent agree. One would be inclined to conclude that economists working in the Netherlands are realist who - as Hausman (1994) phrased it – are willing to “look under the hood” of the economy.

Table 5: Assessing the importance of methodological principles and the way economic science works, ranked by agreement ((fully) agree)

Propositions	Fully disagree	Disagree	Neither agree, nor disagree	Agree	Fully agree
1. Knowledge produced by economists is contested and corrected by their peers	1.9	9.7	22.0	59.9	6.5
2. Economic efficiency is the best criterion for judging economic policy measures	9.4	29.9	23.2	30.1	7.5
3. One can draw a sharp line between positive and normative economics	5.7	29.7	28.5	27.0	9.1
4. The way economic knowledge is created and published is transparent	6.7	25.4	35.6	30.7	1.6
5. The only relevant test for an economic theory is whether it yields good predictions	16.9	46.9	14.0	17.3	5.1
6. The knowledge which economists produce is objective	10.9	42.6	29.1	16.7	0.7
7. Academic economists should stay away from giving policy recommendations to government	19.0	61.7	10.6	7.1	1.6
8. Conclusions of economists are not affected by their nationality or political persuasion	18.4	56.9	16.8	7.4	0.4

Note: The question on which this table is based for items 1-5 was: "To what extent to you agree that the following characteristics of economics as a science apply?"; for items 6-8 respondents were asked to express agreement or disagreement to a set of statements.

The sixth statement ("The knowledge which economists produce is objective") indirectly tries to discover the value-laden nature of economic knowledge. If economists perceive values to be absent they would agree with the statement that knowledge is objective. A majority (52%) of the economists disagrees and only 18 percent believes in the objective nature of knowledge that economists produce. The seventh statement generates the highest level of consensus. It assesses whether academic economists should get involved in giving policy advice to government. The true academic professional as depicted by Klamer and Colander (1990) would certainly not entertain thoughts on practical policy issues as the academic professional is focused on making a mark in the academia. In their view, economists should stay away from giving policy recommendations to government. However, a large majority (81%) of the economists disagrees with this stance and only 9 percent thinks this a norm to be adhered to.

Finally, the eighth statement refers to one of the Mertonian norms, viz. the norm of universalism. All ‘truth-claims’ should be subjected to the same ‘pre-established impersonal criteria’ regardless of their source. In this case the statement is formulated as “Conclusions of economists are not affected by their nationality or political persuasion.” As one can see, 74 percent of the economists disagree with this statement and 8 percent agrees.

All other statements do not have a clear majority and hence these statements reflect a dissensus among economists. It concerns the ‘way economic knowledge is created is transparent’, ‘efficiency being the best measuring rod for judging economic policy measures’, and ‘a sharp division between positive and normative economics’. Although these statements show a lack of consensus, the groups of economists in agreement with these positions is large. A substantial percentage of economists adhere to the old divide between normative and positive economics (36%) and the view that efficiency is the best criterion of economic policy (38%).

The question to be examined here is whether the personal values affect adherence to these methodological principles. Table 6 offers the results of this test.

Two observations about these tests stand out. First of all, economists who value achievement (being successful, being admired or rich) are the ones who are more likely to embrace so-called mainstream methodological principles of an academic professional: thinking solely in terms of efficiency, believing that economic knowledge is objective and transparently produced and in agreement with one of the central tenets of Friedman’s view on positivism and indirectly supporting the claim that realism of assumptions is not important. This is a remarkable outcome but at the same time an understandable outcome as science, and economics in particular, is highly selective, something that is also noted by Fourcade et al. (2015). What does not fit in with view of the academic professional image is the fact that ‘achievers’ are more likely to favor policy involvement. But perhaps this is a country-specific effect: an inheritance of Tinbergen’s stance for the economist to be involved in the matters of economic policy (Van Dalen and Klamer, 1997). The other personal value characteristics – public interest and conformity - have a more limited effect on the economists’ agreement with the statements, although a noteworthy result is that the public spirited economist is more likely to disagree with the statement to stay away from giving policy advice. Furthermore, they are also more likely to agree that conclusions are not affected by a political persuasion or a bias derived from the nationality of an economist.

Table 6: Explaining methodological principles and rules by personal values of economists

Propositions	Values			Applied economist (acad. = 0)	Gender (male = 0)
	Achievement	Public interest	Conformity to rules		
1. Peers contest and correct knowledge produced	0.21** (0.09)	0.11 (0.12)	-0.06 (0.09)	0.95** (0.21)	-0.11 (0.24)
2. Efficiency best measuring rod economic policy	0.20** (0.08)	-0.25* (0.11)	0.23** (0.09)	1.12** (0.19)	0.10 (0.21)
3. Sharp line between positive and normative economics	0.15† (0.08)	-0.11 (0.11)	0.06 (0.09)	-0.09 (0.20)	-0.11 (0.23)
4. Knowledge produced is transparent	0.21** (0.08)	-0.08 (0.11)	0.01 (0.09)	-0.13 (0.19)	-0.71** (0.22)
5. Only test of economic theory is good prediction	0.23** (0.08)	-0.18 (0.11)	0.17† (0.09)	0.12 (0.19)	0.15 (0.22)
6. Economists produce objective knowledge	0.17* (0.08)	-0.18 (0.11)	0.06 (0.09)	-0.39* (0.18)	-0.44* (0.22)
7. Stay away from giving policy advice	-0.23** (0.09)	-0.33** (0.12)	0.22* (0.09)	-0.37† (0.20)	-0.05 (0.24)
8. Conclusions are unaffected by nationality or political persuasion	-0.00 (0.08)	0.34** (0.11)	0.20* (0.09)	-0.58** (0.19)	0.46† (0.23)

Note: estimated by means of ordered logit, age and country of birth of respondents are controlled for. * p < 0.05; ** p < 0.01, † p < 0.10

A second important observation is that the applied economist differs on some notable points markedly from the economist working at a university: the applied economist is less in agreement with the statement that knowledge of economists is objective and are far more in favor of economists giving policy advice and are more likely to think that conclusions are tainted by political persuasion, finally they are far more in agreement with the claim that efficiency is the best measuring rod of policy. The latter observation may not be that odd as applied economists are more likely to work in settings where efficiency or profit are prominent.

A third observation relates to the influence of gender: male economists have more trust than female economists in the way knowledge is produced in economics. Female economist lament the transparency of this production process and they don't perceive knowledge produced by economists as objective. Female economist do, however, believe more than their male counterparts that conclusions of economic research is not affected by one's political persuasion or nationality. The latter stance is a bit puzzling, but perhaps women are just like the economists who score high on public interest values; economists who also believe that conclusions are not affected by any partisanship.

Importance assumptions

A final test on whether values affect the science of economics can be found in the appreciation of specific assumptions in economic theory. In Table 7 the importance that economists attach to five assumptions are ranked by importance (moderately to very important).

Table 7: Assessing the importance of assumptions in understanding modern-day society, ranked by importance (moderately to very important)

Importance of assumptions	Not important at all	Of little importance	Moderately important	Very important	Don't know
1. Behavior led by conventions	1.4	12.8	43.3	37.5	5.0
2. Financial incentives: people are extrinsically motivated	1.8	17.1	42.5	34.0	4.6
3. Government serving the public interest	5.0	23.5	44.1	24.2	3.2
4. Rational behavior	10.2	31.2	38.7	17.3	2.7
5. Perfect competition	10.1	34.9	35.1	17.0	2.9

Note: The question on which this table is based was: "How important are the following assumptions in understanding modern-day society?"

The results suggests a division in importance in two groups: the top three assumptions – conventions, incentives and public interest – are firmly supported by most economists, whereas the last two assumptions – rationality and competition - show weak support. Especially the great support for assumptions relating to behavior led by conventions and the idea that government serves the public interest, may offer some surprise to observers who believe that the Chicago model is dominant. And perhaps this picture is a sign of the times of a sign of how susceptible economics is to fashions. Thirty years ago rationality and perfect competition were routinely used for modelling toy economies and they could be said to belong to the core beliefs of being an economist (Klamer and Colander, 1990, Colander, 2005). Nowadays they apparently generate weak support. Table 7 shows that economists today are quite moderate in their support of rationality and perfect competition as an assumption that helps in understanding society.

A reversal of positions seems to have taken place. Again if one goes back thirty years in time, the ideas of behavioral economists like Thaler or Kahneman were then perceived as acts on the verge of intellectual suicide or a signal that you did not practice proper economics. Chicago economist Merton Miller (1986) was at the time a noted antagonist of behavioral economists like Thaler and their stories: “That we abstract from all these stories in building our models is not because the stories are uninteresting but because they may be too interesting and thereby distract us from the pervasive market forces that should be our principal concern.” The reversal of importance may perhaps also apply to the assumption that government serves the public interest. Of course, this is a tacit assumption made in welfare economics, but for those economists practicing empirical research in the positive tradition of Chicago or the public choice school, this stance would seem strange. Friedman and his colleague Stigler would claim that government often does more harm than good and public choice economists, like Buchanan and Tullock (1962), would be quite sceptic about such assumptions and focus more on how pressure groups or politicians pursue their own interest.

The principal question at this stage is to test whether the importance economists attach to various assumptions is affected by their personal values. Table 8 presents the results of this test and the public interest and conformity values are quite important for understanding priorities in assumptions made to understand modern-day economies.

Table 8: Explaining the importance of assumptions by personal values of economists

Importance of assumptions	Values			Applied economist (academic = 0)	Gender (male = 0)
	Achievement	Public interest	Conformity to rules		
1. Behavior led by conventions	-0.01 (0.09)	0.35** (0.11)	0.09 (0.09)	0.21 (0.19)	-0.03 (0.25)
2. Financial Incentives	0.08 (0.09)	-0.09 (0.11)	0.12 (0.09)	-0.26 (0.19)	0.13 (0.54)
3. Government serving the public interest	-0.06 (0.08)	0.07 (0.11)	0.35** (0.09)	0.17 (0.19)	0.71** (0.23)
4. Rational behavior	0.18* (0.08)	-0.32** (0.11)	0.08 (0.09)	-0.49** (0.19)	-0.11 (0.22)
5. Perfect competition	0.18* (0.08)	-0.24* (0.11)	0.22** (0.09)	0.32† (0.19)	0.01 (0.23)

Note: estimated by means of ordered logit, age and country of birth of respondents are controlled for. The category ‘don’t know’ is not included in the analysis. * $p < 0.05$; ** $p < 0.01$, † $p < 0.10$

Economists who share the values of serving the public interest are implicitly people who turn away from the perfect neoclassical models invoking rationality and perfect competition. They are more apt to understand society through the lens of imperfections, externalities and conventions. However, it is telling to see that economists who score high on achievement values are also the ones who are more apt to find rationality and perfect competition important. Again this finding is in line with the previous findings that ‘achievers’ are more prone to embrace mainstream thinking or methodological principles.

Finally, two of the dummies characterizing the work environment and the gender of the economists merit also some attention as the economists working outside the walls of academia clear are more averse to the assumption of rationality than academic economists (although they see some merit in understanding society with the help of perfect competition). And female economists are on most points no different from men, but they clearly see far more merit than men in assuming that the government serves the public interest. This is in line with findings displayed in Table 3 where female economists are not firm admirers of market-based societies and it also confirms the findings of May et al. (2018) for European economists where “the average female economist is less likely to prefer market solutions over government intervention.” (p. 178)

All in all these results also suggest that one cannot rule out the influence of values in thinking about the scientific practice of an economist.

6. CONCLUSIONS AND DISCUSSION

“Valuations enter into research from the start to the finish” (Myrdal, 1972, p. 162).

Economists are often seen by laypeople as a quarrelsome lot who agree to disagree. To know the world of economists and the forces that impinge on the choices they make is of some importance for anyone trying to understand developments in economics and economic policy. This paper has taken the novel and exploratory route by assessing the effects of (personal) values of economists on their view on methodology and the state of the economy. Three general findings stand out.

First, the personal values of economists differ from the man in the street. In particular, economists attach more importance to serving the public interest than the average citizen and the economist is less attached to the status quo, or to put it differently, the economist does not value rules or traditions and the academic economist is someone who values creativity more than the average citizen or the applied economist.

Second, for the majority of economic positive and normative propositions about economic issues personal values matter. Indirectly, these findings affirm what Gunnar Myrdal always claimed: “There is no view without a viewpoint”. Especially the value to serve the public interest has a strong effect on the perception of how the world works, or how it should be changed. It is only in monetary policy matters that values do not seem to matter a lot.

And third, with respect to methodological issues, it seems that economists who value achievement are the ones who are more likely to embrace mainstream methodological principles in economics: thinking predominantly in terms of efficiency, rationality and competition, believing that economic knowledge is objective and transparently produced and agreement with Friedman’s view on positive economics.

Discussion

These findings are not without limitations and should be interpreted with some care. In particular, the personal values as measured in this paper are assumed to be exogenous. Given the extensive experience with research that has been carried out with the Schwartz approach to values this seem like a reasonable assumption, but the question of value formation should not be neglected. For instance, we have noted that economists differ in their values at some crucial points with the average citizen, but the intriguing question is how have economists come to adopt such different values? Is it socialization or is it a question of self-selection?

Gandal et al. (2005) provide some evidence of values for students that suggests that self-selection is present into the study of economics, where self enhancement is valued more than serving the interests of others by economics students. However, they do not focus on the issue of socialization to dominant group values or education experience. There is a large of body of experimental literature focused on the minds of students that seem to suggest both forces – selection and socialization - are at work (Carter and Irons, 1991, Frey and Meier, 2003).

Although the picture presented in this paper of economists is limited to one moment in time, the findings are intriguing and warrant some further discussion. The findings may shed light, doubt and may reinforce preconceptions of how the world of economists works. In closing I want to make two remarks on the possible implications of these findings.

First of all, the divergence in values between academic economists and the average citizen helps one to understand why economists with the best of intentions have a hard time convincing the general public. Barr and Diamond (2009) once discussed the skills that are needed to make a credible reform. Pension reforms are too often top-down technical design issue, whereas communication and implementation of a reform is an equally important part of effective reform. The fact that the average citizen likes stability and traditions, whereas the average economists is always on the lookout for improving and changing the status quo, helps one understand why economists are perceived as arrogant number-crunchers, just like in the days of Charles Dickens when political economists were seen as dismal scientists.

Second, ‘achievement’ values are positively associated with economists embracing mainstream principles or scientific norms or having mainstream opinions. This is a novel and important finding as it suggests how ‘normal economic science’ connected with a particular type of economist who is focused on his or her own achievements. It is important because it might shed some light on the concerns of insiders (Osterloh and Frey, 2015, Heckman and Moktan, 2018, Colander, 2011) on how the character of economics has changed and has become more focused on internal questions. A likely force seems to be the publish-or-perish culture that many sciences have implemented as their selection mechanism. And economics has (more than other disciplines) a tendency to focus on publications and citations as indicators of the quality of ideas. Osterloh and Frey (2015) therefore urge universities to back away from such ranking games as these games end up substituting a ‘taste for science’ by a ‘taste for publication’. Taste is here an appropriate term as it suggests that values are key in making a science work. Science has this unique mixture where public goods are produced by individuals who are triggered to produce knowledge by means of a non-market reward system that appeals to their intrinsic motivation (Dasgupta and David, 1994). Naturally, economists

are influenced by a mix of values. But by making publications and citations the only coin worth having in science, a non-market reward system is being replaced by a market-reward system. And under those circumstances one should not be surprised to see the unintended consequence of such a publish-or-perish culture materialize. Mimicry could be the result as young and aspiring economists try to adapt to their environment and follow the rules and customs that make the likelihood of publication in top-tier journals greater or of obtaining grants. Economists who favor and strive for individual success are perhaps also the ones who dislike acting in the public interest, because doing jobs or tasks that have a public good nature generally do not earn the credits 'ranking' deans would like to see. One of the consequences may be that the value structure of economists may change as one is almost forced to act as an 'achiever' and the group may become more homogenous. The basic dangers of a drive towards a homogenous group of economists is uniformity in approach, outlook and advice. Fourcade et al. (2015) and Heckman and Moktan (2018) have registered these tendencies and as Heckman and Moktan note: "The current system of publication and reward does not encourage creativity. It delays the publication and dissemination of new ideas. It centralizes power in the hands of a small group of editors, prevents open discussion and stifles dissent and debate." The community of economists seems to experience right now the downside of their ranking games and the old insight and warning of Kerr (1975) surfaces: whoever wants to attain A (read: creativity) by rewarding B (read: publication), will not attain A, but will end up with B.

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APPENDIX A:

Table A1: Factor analysis of value items (rotated factor loadings)

Value Items:	Factor 1	Factor 2	Factor 3
1. Think up new ideas and be creative; to do things one's own way	0.26	0.25	-0.19
2. Be rich, to have a lot of money and expensive things	0.56	-0.14	0.12
3. Everyone should be treated equally and have equal opportunities in life	0.04	0.52	-0.04
4. Doing something for the good of society	0.06	0.67	0.05
5. Be successful and that people recognize my achievements	0.81	0.05	0.04
6. Show one's abilities and be admired	0.79	0.05	0.05
7. People should do what they are told, to follow rules at all times	0.29	-0.06	0.52
8. Listen to people who are different and understand them, even if you disagree with them	0.02	0.42	0.11
9. Make own decisions, be free not depend on others	0.12	0.25	-0.08
10. To help people nearby, to care for their well-being	0.03	0.59	0.20
11. Look after the environment, to care for nature and save life resources	-0.00	0.52	0.09
12. To always behave properly; to avoid doing anything people would say is wrong	0.06	0.19	0.60
13. Seek adventure and take risks; have an exciting life	0.28	0.18	-0.19
14. Be humble and modest, not to draw attention	-0.10	0.20	0.49
15. Follow traditions and customs	0.12	0.03	0.59
Eigen value	2.43	1.66	1.39

Table A2: Explaining economic views and judgements by personal values (measured along traditional lines, cf. Schwartz (2012))

Theses:	Benevolence	Universalism	Self-direction	Stimulation	Achievement	Power	Conformity	Tradition
1. Fiscal policy can be an effective tool in stabilizing the economy	0.11	0.37**	0.09	0.08	0.00	-0.07	0.00	-0.18*
2. A market society generates in practice more welfare than a socialist society.	-0.03	-0.34**	0.23*	-0.02	0.12	0.30**	0.08	-0.13†
3. Import tariffs and quotas decrease economic welfare	-0.19†	-0.01	-0.07	0.07	0.15*	0.27**	-0.13	0.01
4. The income distribution in developed countries should be more equal	0.08	0.66**	-0.03	0.05	-0.07	-0.41**	-0.13	0.04
5. The capitalist system has an inherent tendency towards crisis.	0.06	0.42**	0.24*	-0.03	-0.02	-0.13	-0.14	-0.04
6. Emission taxes offer a better approach to decrease pollution than the imposition of pollution ceilings	-0.07	0.42**	-0.07	-0.04	0.14†	-0.07	-0.03	0.03
7. Expansionary monetary policy is an effective tool in fighting recessions	0.08	0.13	0.03	-0.02	-0.04	0.23*	-0.04	-0.03
8. In general, the benefits of immigration are larger than the costs for a host country.	0.08	0.28*	-0.05	0.03	-0.13	-0.00	-0.12	-0.05
9. A minimum wage increases unemployment among young and unskilled workers	-0.13	-0.21†	0.03	0.08	0.01	0.23**	0.10	-0.00
10. The Euro and the EMU offer a superior mechanism to a regime of floating exchange rates in separate European countries	-0.18†	0.22†	-0.03	-0.05	-0.02	0.14	0.14†	-0.13*
11. Inflation is primarily a monetary phenomenon	0.11	0.02	-0.07	0.04	0.08	-0.03	0.15†	0.07
12. Financial markets are inherently stable	0.07	-0.19	0.02	0.08	-0.20**	0.34**	0.22**	-0.05
13. Financial markets accurately assess the value of stocks at their intrinsic value	-0.14	-0.40**	-0.11	0.17*	-0.03	0.14†	0.30**	-0.03

Benevolence is based on 2-item scale ‘To help people nearby; to care for their well-being’ and ‘Do something for the good of society’; *Universalism* is based on 3-item scale: ‘Everyone should be treated equally and have equal opportunities in life’, ‘Listen to people who are different and understand them, even if you disagree with them’, ‘Look after the environment, to care for nature and save life resources’; *Self-direction* is two item scale based on ‘Think up new ideas and be creative; to do things one’s own way’ and ‘Make own decisions, be free and not depend on others’; *Stimulation* is based on item ‘Seek adventure and take risks; have an exciting life’; *Achievement* is a 2-item scale ‘Show one’s abilities and be admired’ and ‘Be successful and that people recognize my achievements’; *Power* is based on item ‘Be rich, to have a lot of money and expensive things’; *Conformity* is a 2-item scale ‘Follow traditions and customs’ and ‘People should do what they are told, to follow rules at all times’; *Tradition* is based on ‘Be humble and modest, not to draw attention’.

Note: estimated by means of ordered logit, the category ‘don’t know’ is not included in the analysis. * $p < 0.05$; ** $p < 0.01$, † $p < 0$.

