Are Economists Influenced By Their Moral Worldviews?  
Evidence From The Moral Foundations Of Economists Questionnaire

Anthony Randazzo  
Reason Foundation¹

Jonathan Haidt  
New York University²

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Abstract

Is it possible to use the moral judgments of economists to predict their findings on positive, empirical economic propositions? We consider this question using data we collected using a questionnaire of positive and normative economic propositions, as well as a series of propositions used for measuring moral intuitions. Our analysis of economists’ responses to this survey suggests that moral intuitions have a significant influence on substantive, empirical conclusions via the same channels by which moral intuitions shape normative worldviews. We conclude that the long-recognized line between positive and normative analysis is much blurrier than widely understood.

JEL Codes: A11, A14, B40, B59, P16

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¹ Anthony Randazzo is director of economic research at Reason Foundation. This working paper is drawn from content in his master’s thesis at New York University. Feedback welcomed at anthony.randazzo@reason.org.
² Jonathan Haidt is a professor in the Business and Society Program at New York University’s Stern School of Business.
I. Introduction: The Debate over Value Neutrality in Economics

Would increasing the federal minimum wage lead to a net improvement in living conditions for both the current and future U.S. labor force, particularly for those in the bottom quarter of the income distribution? This seemingly empirical question has no consensus answer amongst economists.³

Many studies have shown that increases in the minimum wage are associated with negative employment effects (Neumark and Wascher 2006, Wither and Clemens 2014) and increases in prices that outweigh any wage gains (Lemos 2004, Aaronson and French 2013). But at the same time, many other studies have found that increases in the minimum wage do not have these negative effects, instead increasing wages and having no influence on employment prospects (Card and Krueger 1994; Doucouliagos and Stanley 2009). A few studies have even found that increases in the minimum wage create more opportunities for employment (Katz and Krueger 1992, Aaronson et al. 2011, Rocheteau and Tasci 2007), also a net positive influence on the labor market.

This divergence of economic judgment is typically chalked up to competing methodological approaches (Schmitt 2013; Neumark and Wascher 2006). Methodological disagreement has long been the mainstream explanation given for why economists disagree. In 1953, Milton Friedman wrote that economists should and could focus on an objective, empirical science, developing theories and hypotheses “that yield valid and meaningful (i.e., not truistic) predictions about phenomena” (1953, p. 7).⁴ Thus, disagreements among well-trained economists are due to methodological differences—or “scientific judgments”—not competing value judgments (Friedman 1968, p. 2).

Friedman was echoing the “scientific neutrality” view of economics that Samuelson (1967) had articulated in his textbook Economics, which by the seventh edition included the maxim: “Modern economists are ‘post-Keynesians,’ keen to render obsolete any theories that cannot meet the test of experience.”⁵

This Samuelson-Friedman hypothesis became firmly rooted in the mainstream over subsequent decades (if introductory textbooks are any guide).⁶ At the center of the belief that economics can be a value-free discipline is the notion that economists can overcome their own normative views and get close to a non-ideological ideal. Problems can be framed in an objective manner. Mathematical models can be employed. And empirical observations about economic data can be value-free. In Mankiw’s (2014a) terminology, when working on policy issues, economists put on a “political-philosophers hat,” but they

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³ For example, see virtually any question about the minimum wage posed to the IGM Economic Experts Panel, available at: http://www.igmchicago.org/igm-economic-experts-panel. These items are usually framed as an empirical matter, often as a hypothetical related to an issue in the political zeitgeist.

⁴ Friedman (1953) argued economists should not be concerned with the accuracy of assumptions but rather the accuracy of predictions (p. 14). After all, “Positive economics is in principle independent of any particular ethical position or normative judgments” (p. 3).

⁵ There is some irony in that this specific quote was a rebuttal to Friedman’s assertion that economists are “all Keynesians now.” However, the underlying principal the Samuelson is stating is symbiotic with Friedman’s view of a value-neutral economic science.

⁶ See Mankiw 2014b, and Krugman and Wells 2012.
are capable of taking it off to do empirical, value-neutral analysis if they want.

But there is another theory as to why economists disagree on topics like the minimum wage. The same year as Friedman’s infamous essay, Gunnar Myrdal published *The Political Element in the Development of Economic Theory* in English, in which he concluded economics is a value-permeated discipline. Value judgments are injected into economic analysis at the early stage of empirical observation of facts, he said, and thus “there is an inescapable *a priori* element in all scientific work” (1953, p. vii).

And Myrdal was not alone. Schumpeter (1954) described the “pre-analytic cognitive act” that he said frames economists’ visions of the world and perspectives on each others’ work. More emphatically, Heyne (1978) made the case that economics is a value-permeated discipline. He emphasized the humanity of economists, arguing there is “no way to establish the validity of a proposition in economic science except by persuading other economists” (p. 18). (Also see Colander 1994, and Tiemstra 1998.)

Taken together, we might speak of a *Myrdal-Heyne hypothesis*: Economics is a social activity where testing and prediction are only possible in the context of humanly framed questions and problems, and therefore economics is permeated by value judgments. On this view, economists bring their subjective biases into the work of social science. Sometimes economists disagree because they are looking at different data or using different methodologies—but what draws economists to a particular data set, model, methodology, or definition of a term is often rooted in their normative worldviews.

Which hypothesis is closer to the truth, *Samuelson-Friedman* or *Myrdal-Heyne*? Research on moral and political psychology suggests that Myrdal-Heyne is likely to be right. Across a broad array of methods, it has been shown that reasoning about politically controversial facts is strongly influenced by emotions and partisan sentiments (Haidt and Kesebir 2010, Kahan 2012). Are economists likely to be exceptions to this rule?

We test the debate by asking economists to make a series of judgments, economic and moral. We expect political ideology to drive *normative* economic judgments (e.g. “The minimum wage should be increased to help reduce income inequality”). We use the size of the ideological difference on such normative judgments as a baseline, to establish how large ideological effects are for judgments where we expect to find them.

We then quantify the degree to which morality and ideology predict *positive* judgments – i.e. empirical judgments on statements of fact or measurement (e.g.

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7 “There is an inescapable *a priori* element in all scientific work. Questions must be asked before answers can be given. Valuations are thus necessarily involved already at the stage when we observe facts and carry on theoretical analysis, and not only at the stage when we draw political inferences from facts and valuations.” (Myrdal 1953, p. vii)

8 “Statements, propositions, or judgments are made and held by subjects and are therefore always subjective. It might be argued that they are ‘objective’ insofar as reality confirms them. But as soon as we speak less metaphorically we realize that it is always other subjects and never objects that confirm or disconfirm a judgment. … There is consequently no way to establish the validity of a proposition in economic science except by persuading other economists.” (Heyne 1978, 18)

9 We have intentionally chosen leading theorists on either side of this debate that come from different places on the ideological spectrum to demonstrate that the philosophical views on value-neutrality are no a partisan ideological issue.
“Increasing minimum wages typically benefits the current and future labor force on net”). If morality and ideology predict positive judgments as well as they predict normative judgments, Myrdal-Heyne wins. If morality and ideology are not significant predictors of positive judgments, then Samuelson-Friedman wins.

II. Methods

To investigate our hypotheses, we designed a questionnaire called the Moral Foundations of Economists Questionnaire (MFEQ), featuring economic theory propositions as well as moral theory propositions. We sent the questionnaire to economists at America’s top universities.¹⁰

A. MFEQ Design: Economic Theory Items

The first half of the MFEQ asks respondents to agree or disagree (on a seven-point Likert scale) with 22 separate positive, technical economic statements, such as “Cutting current federal income tax rates would mean higher GDP in the long-run than without a tax cut.” These statements require the economist to make a descriptive judgment about how the world “is”. The Samuelson-Friedman hypothesis suggests that economists should be able to respond to such questions with minimal influence from their value judgments, whereas the Myrdal-Heyne hypothesis argues that economist’s responses are pervasively influenced by their value judgments.

To provide a point of comparison, we also include four normative propositions in the MFEQ, such as “There should be social institutions that ensure at least a basic income for all.” These statements ask economists to agree or disagree about how the world “ought” to be, and so they require economists to draw on their own personal moral values and ideological identities.

The MFEQ begins with these instructions: “Please read the following sentences and indicate your agreement or disagreement by writing the number in the box next to each sentence. The questions should be read in context of the United States today, and may be either normative or technical (positive) in nature.” Respondents were asked to answer using a standard Likert scale, where 1 was labeled “strongly disagree,” 7 was “strongly agree,” and 4 was labeled “neutral”.¹¹

The economic theory items cover a wide range of topics, including economic growth, housing, immigration, health care, labor, taxes, poverty, trade, and philosophy of economics.¹² We divide the items between macroeconomic propositions – i.e. “The

¹⁰ See subsection C for details on the universities.
¹¹ Full Likert scale: 1 Strongly Disagree, 2 Moderately Disagree, 3 Slightly Disagree, 4 Neutral, 5 Slightly Agree, 6 Moderately Agree, 7 Strongly Agree.
¹² Items for the economic theory portion of the questionnaire were partially drawn from similar surveys of economists, including Alston, et al. (1992), Whaples (1995), and Fuller and Geide-Stevenson (2003); and partially originally designed by the authors. Various versions of the MFEQ were fielded with test groups of economists from nine different universities, with varying degrees of experience and research expertise. We have kept their names and questionnaire result anonymous, but they have our thanks.
current national debt level is adversely affecting the economy”—and microeconomic propositions —i.e. “Laws prohibiting U.S. companies from hiring undocumented workers (illegal immigrants) hurt businesses by increasing the price of labor.”

B. MFEQ Design: Moral Intuitions (Moral Foundations)

The second half of the MFEQ is a modified version of the Moral Foundations Questionnaire (MFQ), a survey instrument designed to measure a broad range of moral values (Graham, Nosek, Haidt, Iyer, Koleva, and Ditto 2011). Our version of the MFQ contains five subscales using a slight re-organization of the usual subscales in order to gain better resolution on moral issues related to economics while keeping the survey as short as possible. In particular, “fairness” is divided into two kinds – proportionality and equality—while the three socially conservative foundations (Loyalty, Authority, and Sanctity) are merged into a single construct assessed by eight items rather than using all 18 items. The five subscales that we created in advance were:

(1) Care: This construct is associated with the ability to recognize and react to the pain, suffering, or distress of other individuals, and is related to values such as kindness, compassion, and empathy;

(2) Proportionality: This construct is associated with reciprocal altruism, distributive justice, or aversion to cheating, and it is sometimes thought of in terms of karma – one should reap what one sows.

(3) Equality: This construct is associated with valuing equality as a social ideal, both in terms of equal treatment and equal outcomes.

(4) Liberty: This construct is associated with valuing autonomy and resenting limitations on one’s freedom or rights.

(5) Loyalty-Authority-Sanctity (LAS): Loyalty is associated with in-group cohesion (i.e. tribalism or nationalism). Authority is associated with valuing order and tradition, and with respecting social authorities perceived to be legitimate. Sanctity is associated with the idea that some things are pure and holy, and should not be used for pleasure or convenience, or treated in a profane way.

As on previously fielded versions of the MFQ, we pose two kinds of moral propositions. The first kind of moral proposition asks how relevant certain factors are to

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13 The item selection was nearly evenly split between macroeconomic propositions (46%) and microeconomic propositions (54%).

14 Scores on these three subscales are always moderately intercorrelated. For more detail see Graham, Haidt, Koleva, Moytl, Iyer, Wojcik, and Ditto (2012).

15 Given the number of distributional and procedural fairness questions within economics, we wanted to have a nuanced understanding of the fairness construct amongst economists. Proportionality is related to whether one gets what one deserves, and is reflected in notions such as Protestant work ethic or Hindu notions of Karma. It tends to be more highly valued by social conservatives. Equality, meanwhile, can be understood as having equal opportunity or as obtaining equal outcomes. Words and concepts related to equality tend to be more highly valued on the political left. There is a relationship between fairness constructs and liberty, as negative liberty (being free from obstacles to behavior) is associated with proportionality, while positive liberty (being free to pursue preferred behaviors) is associated with equality. To build the two fairness subscales we identified items with strong validity that have been used on surveys at www.yourmorals.org to create stand-alone Equality and Proportionality subscales.

16 Data collected by Haidt at www.yourmorals.org has shown individuals who identify as politically conservative tend to give higher scores than other groups on the Loyalty, Authority, and Sanctity subscales (Haidt and Graham 2007). To reduce the total items posed to economists on the MFEQ we reduced these subscales into a single, omni-subscale called the LAS. foundation. This construct effectively serves as a test of socially conservative moral values.
the individual when deciding whether something was right or wrong. Using a six-point Likert scale (from 0-Not Relevant to 5-Extremely Relevant) respondents are asked to rate how relevant it is to judging right and wrong whether or not (for example) “those who contribute more are rewarded more” as an item measuring Proportionality, and “Whether or not people were compelled to do things they didn't want to do” as an item measuring Liberty. The second kind of moral proposition asks respondents to agree or disagree (on a six-point Likert scale) to a specific moral statement. For example, “I think it’s morally wrong that rich children inherit a lot of money while poor children inherit nothing,” as an item measuring Equality, and “Compassion for those who are suffering is the most crucial virtue,” as an item measuring Care.

All items on the MFEQ correspond with a moral construct, allowing us to compute average scores for each foundation. Thus, we can get a measure of each respondent’s moral intuitions by looking at a distribution of scores on the five subscales.

The various moral foundation scores can be conceptualized as dials on an audio tuner, with each foundation turned to a specific setting within a particular individual’s mind (Haidt 2012). Looking at how the moral foundation scores are distributed allows us to consider the relative weight a respondent gives to one moral construct versus others. We can then use the respondent’s relative moral intuitions to analyze their responses to economic theory items and see if there are patterns that emerge.

The patterns that have emerged in past research indicate that people who self-describe as being on the political left tend to have very high settings on the Care and Equality channels (Haidt and Graham 2007). Social conservatives have moderately high settings on all channels, and the highest setting on the L.A.S. channel relative to other political identities (Haidt, Graham, and Joseph 2009). And libertarians have the highest settings on the Liberty channel, along with relatively low settings on the other channels (Iyer et al. 2012). The pattern of scores on each of the moral foundation subscales is hereinafter referred to as a “moral worldview.” See Appendix A for full survey text.

C. Fielding the MFEQ

We randomly selected one-third of the top 133 economics departments in the United States as ranked by the U.S. News & World Report. We collected the email addresses for the all economists in those departments and send them an email request to participate in our project with a link to the MFEQ. We reached out to 1266 email addresses and over a four-week period in May-June 2014, we received 166 responses from economists, a response rate of 13.1%. Those economists were spread across 40 universities from our sample.

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17 We used the 2013 U.S. News & World Report ranking of economics departments, visited each economics department webpage, and collected the email addresses for full-time, part-time, visiting, and emeritus faculty.
18 We recruited the respondents by contacting them via their university email account, and providing a link to the questionnaire hosted on SurveyMonkey.com.
19 A word about representativeness: For all of the value that economists place on data, there is no comprehensive source listing all economists in America, or definitive demographics about the economics community. The American Economic Association membership list includes many non-economists, and there are numerous private sector and government employed economists who are not members. Rankings of economics departments do not provide detailed
We also collected demographic information on gender, age, level of economic education, year PhD was conferred, and whether the economist’s economic training was in America.\textsuperscript{20} We also asked MFEQ respondents to self-identify with the economic “schools of thought” they felt best represented their understanding of economic theory.

We dropped 35 responses (21%) because the respondents completed less than 80% of the total questionnaire.\textsuperscript{21} After dropping these incomplete responses, our sample contained 131 economists. This group is 81.7% male, 19.8% are 39 or younger, 46.6% are between 40-59, and 32.8% are 60 or older (only one respondent did not report their age). All economists in our sample have PhDs, with the exception of one respondent with an MBA.

D. Self-Identified Economic School of Thought

Respondent economists were asked if they self-identified with any particular economic school of thought. We provided eight possible choices (respondents could select as many or as few as they wanted): Neoclassical, Classical (RBCT), New Keynesian, Post-Keynesian, Austrian, New Institutional, Feminist, Marxist, and “other” (a blank option for other self-descriptions). There was no requirement that economists select a school, though 87% of respondents in our sample did. The responses allowed us to analyze the economists based on how they grouped themselves.\textsuperscript{22}

The majority of economists whom made a selection (75.6%) identified solely with one of four schools: Neoclassical, New Keynesian, New Institutional, and Austrian. We chose to group economists based on these four groups. For the quarter of respondents (24.4%) who self-identified with more than one economic school of thought, if they chose one of the four primary groups and a less common group (such as New Keynesian and Feminist) we put them in the primary group they selected; if they selected two primary groups (such as Neoclassical and Austrian), we put them with the less common group of the two they self-identified with.\textsuperscript{23} (For the sake of simplicity we’ll be referring to the school that includes those who identified with “New Keynesian” as just Keynesian, but we recognize the importance of the difference in terms for the history of economic thought literature.)

demographic data on economists. It is ultimately impossible to claim representativeness for a survey of economists; one can only show representativeness within the collection of contact information gathered for a particular survey. Nevertheless, we feel the total number of respondents to the MFEQ is a good sample and an approximate reflection of the economics community.

\textsuperscript{20} Throughout these results we found little discernable effect of gender, level of economic education, PhD conferment year, or PhD conferment location on the results.

\textsuperscript{21} Some of these incomplete surveys were from respondents whose first language was no English or who did not have a PhD or MBA, and thus we would have dropped them from the sample anyway.

\textsuperscript{22} Naturally, there is some subjectivity in defining a school of thought, and variance in opinions about what views a school of thought would represent. However, since we just wanted to group economists based on their perceived labeling we didn’t need to ensure a consensus definition for each school of thought. Respondents were not forced to select a school of thought, and had the ability to clarify their selection in a comments section (about 10% of respondents chose to do so).

\textsuperscript{23} There were five write-in self-identifications: “Monetarist,” “Milton Friedman,” we grouped these respondents with the Neoclassical school. Six respondents who identified only with Classical economics were assigned to Neoclassical group. Three respondents who identified only with Post-Keynesian were assigned to the Keynesian group.
E. Implied Political Ideology

Previous versions of the MFQ that have been fielded by Haidt ask respondents for their political self-description (liberal to conservative) when they register at the site www.YourMorals.org. Originally we planned to field the MFEQ on the same platform. However, to respond to requests made by NYU’s Internal Review Board (IRB), we transferred the survey over to SurveyMonkey.com. In the process we failed to add in an item asking about political self-description.

To compensate for this omission, we found a way to impute political self-descriptions based on economists’ responses to the MFQ items. We analyzed a sample of 241,000 respondents from YourMorals.org, where respondents had identified themselves by selecting a point along a seven point scale from “Very Liberal (Progressive)” to “Very Conservative.” They were also given the option of selecting “Libertarian” or “Don’t know/not-political.” We used logistic regressions to identify which set of MFQ items (from among the ones we had used in our study), with which weights, could be used to obtain the most accurate estimate of whether a participant had self-identified as liberal/progressive, conservative, or libertarian. We developed those predictors on half the sample and then validated them on the other half, for which we attained 81% accuracy. We then used the economist’s scores on those same items to determine an implied political preference. While this method is clearly not completely accurate as a way to assess economists’ own political identities, it can still serve as another method for dividing up our economists into groups based on values, in order to examine how values relate to positive economic beliefs.

III. Profiling Economists In Our Sample

Our analytic strategy is to start by organizing the economists into groups based on their self-identified preferences. Then, to facilitate the examination of the economic judgments of these groups, we will reduce the economic items into categories using factor analysis. Finally, we will use linear regression analysis to identify how well responses to moral items predict responses to economic theory items. We will use the degree to which moral judgments predict normative economic beliefs as a baseline, and then compare the relationship between moral judgments and positive economic judgments to that baseline.

A. Who Are the Economist Respondents?

For our first set of analyses, we grouped economists in our sample into four schools of economic thought based on how they self-identified. We will use these groups to compare the economic judgments of economists. Table 1 reports the demographics of

24 By assigning an implied politics label to economists, we are not assuming that all economists would consciously endorse some ideology or other. This is merely another way (one of three) of dividing economists into groups to test our hypotheses.

25 The betas were used to weight the economist’s responses on the same items. Each respondent was assigned a score for the three political ideologies, using the standardized beta from the regression to weight economist’s responses on the same items. We assigned an ideology based on the largest score amongst the three choices.

26 See Appendix B for a table reporting the results.
each of the schools, including age, gender, and total membership.

[INSERT TABLE 1]

The average age of all schools is between 50 and 60, and the Keynesian school has the largest percentage of female economists of any of the schools. We note that the number of economists included in the Austrian school is smaller than we would like for performing analyses, but we do believe including the school here is important as a relative benchmark for the other schools of thought, and as we’ll see the scores of self-described Austrians are very much in line with what one would expect from their writings.

B. Factor Analysis: Reducing the Economic Propositions

The first step in our analytical approach is to isolate items on the economic judgments portion of our questionnaire using factor analysis. The goal is to reduce the positive, empirical economic items into various groups that we can compare against the normative items and measure for intergroup divergence. We will also use these groups of reduced items later when looking at the results of our regression analysis.

We start our analysis of the MFEQ data with a factor analysis of all of the economic theory propositions, positive and normative. Items loaded onto three interpretable factors, which give us three subscales for positive economic items. We isolated the four normative items from the subscales as their own factor. Table 2 reports the results of the factor analysis, and provides a list of all propositions that we’ve included in the subscales for these factors.

[INSERT TABLE 2]

The first factor is comprised of 13 items, all of which are hot button issues in today’s political debates (e.g., top tax rates, minimum wage, austerity). We reversed the scores on six of the items so that all 13 items on the scale were expressing views generally shared by the political left in America. We call this factor subscale “Progressive Economics”—high scores on the subscale suggest agreement with statements that are politically progressive in nature, even though they do not contain an explicit value judgment, or include normative words like “should.” These are items that can be answered with scientific judgment according to the Samuelson-Friedman hypothesis.

The second factor has three items related to constraints on economic behavior (e.g. property rights, price system, budget deficits). The items on this scale express views generally expressed by Classical and Neoclassical economists in the history of economic thought literature. We call this factor subscale “Neoclassical Principles,”

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27 The elbow on the scree plot from a factor analysis (extraction method: principle component; rotation: direct oblimin; method: correlation) suggested either three or four factors. We repeated the analysis for four fixed factors, but only report three of them because only two items had their largest loading on the fourth factor, and those items didn’t load above 0.4 on any other factors: the items were “Economists can separate positive analysis from normative analysis in their research” and “Our world is so complex that there is no stable, underlying structure measurable over time.”
And the third factor contains four items related to immigration, trade, and drug policy. We reversed the scores on item so that all four items on the scale were expressing views generally shared by libertarians in American. We call this factor subscale “Libertarian Social Policy.”

C. Economic Judgments of Economists

Economist respondents were asked a range of questions, mostly using language that asked the respondent to provide a judgment on a positive statement (i.e. a statement that theoretically is an empirical, measurable matter). The collective responses of the economists to these economic propositions gave us the data to calculate a score for each economist on the four economic theory subscales identified by the factor analysis.28

Table 3 reports the average scores of economists in each of the four school of thought groups on the four economic judgment subscales—one normative, and three positive. We also report the maximum difference between any two of the schools for each factor subscale, and the standard deviation for items within each subscale.

[INSERT TABLE 3]

The political left leaning normative economic theory subscale is clearly favored by economists in the New Institutional and Keynesian schools more than the Austrian and Neoclassical schools. A similar distribution of economic judgments is found on the left leaning positive subscale for Progressive Economics. Already we see a pattern emerging of economists organized in self-selected groups expressing similar levels of agreement and disagreement on both normative and positive items.

Note that the maximum intergroup divergence is relatively the same for both the normative factor and the Progressive Economics factor. Within both factor subscales the divergence is greater than the standard deviation. This degree of intergroup divergence suggests there is a sharp lack of consensus on the propositions within these subscales.

By contrast, while there are certainly differences in judgment on the Neoclassical Principles and Libertarian Social Policy subscales, the standard deviation is larger than the maximum divergence of scores between the groups. This suggests there is a relatively greater amount of consensus amongst economists on the propositions that comprise these subscales. (We discuss this result in more depth later in the paper.)

To get a sense of how economists within each school of thought responded to each economic theory item on the MFEQ we also report the scores on each proposition in Table 4. Mean scores closer to 7 indicate higher degrees of agreement with the economic theory proposition; mean scores closer to 1 indicate higher degrees of disagreement.

[INSERT TABLE 4]

28 Responses to economic theory items were reversed when they loaded negatively on a factor, and then the mean of all items in each of the three subscales was computed for each economist.
D. Moral Judgments of Economists

Next, we will organize the moral judgments made by our respondents. Table 5 shows the mean score for the four school of thought groups on each of the moral judgment subscales, i.e. the moral constructs or moral foundations.\(^\text{29}\) Overall scores on the moral foundation subscales we refer to as the moral worldview for economists. Scores range from 5 (the moral foundation is extremely relevant to the respondent’s moral worldview) to 0 (the moral foundation is not relevant at all to the respondent’s moral worldview).

Table 5 also includes an “equality preference ratio” (EP Ratio), which is a measure of the relative difference between scores on the Equality and Proportionality subscales: scores at 1 indicate and even/equal preference for proportionality and equality; scores rising above 1 indicate higher levels of preference for equality over proportionality; scores descending below 1 indicate an increasing preference for proportionality over equality.

[INSERT TABLE 5]

Keynesians’ moral worldview seems to place the highest value on Care, and the lowest value on the Loyalty-Authority-Sanctity (L.A.S.) foundations. This is consistent with prior portraits of progressives using the MFQ (Graham et al., 2011). Both the Neoclassical and New Institutional moral worldviews are relatively balanced across the moral foundations (as noted by their smallest standard deviations). Unsurprisingly, Austrian school economists in our sample have the Liberty channel turned up dramatically higher than the other foundations.

As we report in the table, there is no statistically significant difference in how the schools of thought have Proportionality tuned in their moral worldview. There are, however, statistically significant divergences in views on Equality for all schools except between the Keynesian and New Institutional schools.\(^\text{30}\) We should, therefore, carefully consider the relative weight a school of thought gives to these two moral subscales.

The Keynesian and Neoclassical schools gives roughly equal weight to both Equality and Proportionality, but the nominal scores on Equality are quite different. The Keynesians are Equality favoring, and the Neoclassicals are Proportionality favoring. Meanwhile, the Austrian school of thought has a very strong preference for Proportionality over Equality.

Perhaps the most striking finding from the table is how all economists have a relatively large preference for Liberty, not just the Austrian school. This is most easily seen by looking at the distribution of moral foundation subscale scores by school of thought shown in Figure 1.\(^\text{31}\) (This figure has the same data as Table 5, just organized in a

\(^{29}\) As we outlined in our methods section of this paper, each moral item corresponds with a one of five moral foundations. To see the economists’ mean scores on each of the moral propositions see Appendix B.

\(^{30}\) Thus, for these two schools their relative scores on Proportionality and Equality are statistically the same.

\(^{31}\) In Appendix B we report the same data for this figure, but organized by school of thought instead of moral foundation so it is possible to see the full moral worldview visualization for each school.
different way).

[INSERT FIGURE 1]

When the Liberty subscale is compared to other moral subscale scores, it is often the largest or second largest moral consideration for economists. And when Liberty scores are just compared against either other, only Austrian school’s views have a significant statistical difference from the other schools.

Moreover, it is easy to see with the figure that, within the 95% confidence interval, all schools of thought have the Proportionality channel tuned to the same level in their moral worldviews. Moral judgments diverge a lot more on Equality, however, as well as with the Care foundation.

IV. Testing the Theories: Samuelson-Friedman or Myrdal-Heyne?

We now have a set of moral judgment subscales to use in testing the predictive nature of moral judgments for economic judgments. Recall, our hypothesis is that moral judgments will predict economists’ views on positive economic propositions as well as normative propositions. Our benchmark for testing “as well as” is a comparison of the model fit for our regression equation predicting positive and normative economic worldviews, and whether the beta weights are similarly strong for items with similar levels of intergroup divergence.\(^\text{32}\)

First, we do a simple correlation test, to see if there is a relationship between the moral and economic judgments. Table 6 reports the Pearson coefficients of a bivariate correlation analysis that included the four economic judgment subscales, five moral foundation subscales, plus gender and age data for the respondents.

[INSERT TABLE 6]

There are – as expected – strong positive correlations between both the Care and Equality moral foundations and the left leaning Normative Propositions. However, consistent with the Myrdal-Heyne hypothesis, we see the same pattern with positive economic judgments. Economists scores on the Care and Equality foundation are just as good as predictors of their positive views about politically loaded factual issues (such as whether “A single payer health care system operated by the federal government would improve economic efficiency by reducing health care costs”) as they are as predictors of explicitly normative statements (such as “Reducing or limiting income inequality is not an appropriate role for the government”). We see weak but significant negative correlations on the same moral judgment channels for the Neoclassical Principles subscale too.

\(^{32}\) We define “similarity” by using absolute levels of intergroup divergence (we report the max difference within the four groups), and similarity of the content of the items.
On the whole there are statistically significant correlations for positive and normative economic judgments with all moral judgment subscales except Proportionality—and we would expect no loadings with Proportionality given how similar the moral judgments on that foundation were amongst all economists.

Next we want to look at the predictive capacity of the moral judgment subscales. We regress each of the economic theory subscales as a dependent variable separately, using the moral foundation subscales as our independent variables. We also include in the linear regression gender and age as independents. Table 7 reports the standardized coefficient for each moral judgment variable, and the $R^2$ as a measure of how well our model fits the data.

Table 7 shows a similar story as with the Pearson correlation coefficients. Here we see statistically significant standardized betas with relatively similar predictive strength for the Care, Equality, and Liberty foundations on both Normative Propositions and Progressive Economics. The coefficients load as expected too: the higher an economist tunes their Care and Equality channels, the stronger agreement they’ll register with left leaning normative and positive economic judgments. The lower the Liberty channels are tuned, the less agreement will be registered on the left leaning economic theory propositions, normative and positive.

The patterns remain the same when we break out the economic judgment subscales and run a regression for each economic proposition item separately (still with the five moral judgment subscales, gender, and age as the independent variables). We report the standardized betas for those regressions in Table 8.

The moral judgment subscales predict economic proposition items with a similar pattern as the factors seen in Table 7. The Care and Equality moral channels are the most predictive of economists’ particular economic judgments, but Liberty and L.A.S. can also help us predict an economist’s economic judgment on normative and positive propositions.

We asked two Normative Proposition items that got at what an economist’s value judgments might be regarding the minimum wage: “Reducing or limiting income inequality is not an appropriate role for the government” is has the most disagreement

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33 We only report the statistically significant betas in this table in order to show the pattern of moral judgment scales that have the most predictive power. We report all betas for the table in Appendix B.

34 Previous questionnaires presented investigating why economists disagree tend to suggest that economist have a greater degree of consensus on macroeconomic versus microeconomic propositions (Kearl et al. 1979, Alston et al. 1992, Fuller and Geide-Stevenson 2003). However, we find no statistical difference between intergroup divergence on macroeconomic items (average 2.49, standard deviation 1.7) versus microeconomic items (average 2.48, standard deviation 1.5).
amongst economists and is predicted by Care (-.254), Equality (-.471), and Liberty (.153) moral subscales; “There should be social institutions that ensure at least a basic income for all” has the most consensus of normative items, but is still predicted by the Equality (.431) moral judgment foundation (standardized betas significant at least at a 95% confidence interval).

Then we asked whether “Increasing minimum wages typically benefits the current and future labor force on net.” And we find both the Care (.273) and Equality (.333) foundations can predict an economist’s judgment. We also asked whether “The persistence of poverty is primarily due to the existence of social welfare programs like the minimum wage and government housing assistance,” and found statistically significant betas for Care (-.376), Equality (.241), Liberty (.176), and L.A.S. (.170).

On both positive and normative propositions about the minimum wage, moral judgments were predictive of economic judgments. We expect the moral worldviews of economists to have an influence on their value judgments about income inequality or whether there should be a basic (minimum) income for all. However, even when the proposition about the minimum wage is framed in an empirical context, the same moral judgments can predict how economists will judge the economic item.

If we map this over to the scores of the economists by school of thought (shown on the right side of Tables 6 and 7), we can see the results make intuitive sense. Keynesian economists, usually associated with the political left score higher on Care and Equality moral judgment subscales and register moderate to strong agreement with the left leaning Normative Propositions as well as the left leaning positive propositions on the Progressive Economics subscale (including left leaning judgments on the minimum wage items). Austrian economists score high on the Liberty moral judgment channel and low on the Normative Proposition and Progressive Economics subscales—as is predicted with the negative betas associated with the Liberty moral subscale for those two economic subscales.

And also important, the model fit (R^2) is equally strong for both the Normative Proposition and Progressive Economics subscale factors too, meaning we can predict positive economic judgments just as well as normative economic judgments.

In other words: Myrdal-Heyne win.

V. The Kinds of Economic Judgments Predicted by Moral Judgments

While our data certainly finds support for the Myrdal-Heyne hypothesis, we also can see that moral judgments don’t predict economic judgments on every kind of economic proposition. In general, the greater the divergence of opinion (economic judgment) amongst economists on an economic proposition, the more moral judgments can predict the economic judgment; and vice versa.

Looking further at Table 8, particularly the columns reporting the R^2 for each
regression and the max intergroup divergences on economic scores, we find there is a strong relationship \( r = 0.83 \) between the model fit for the regression of a particular item and the intergroup divergence on that item, as shown in the far right columns. Figure 2 shows a plot of all economic theory propositions, with the model fit strength on the x-axis, and max intergroup divergence on the y-axis.

[INSERT FIGURE 2]

The less consensus economists have in their economic judgments, the more moral judgments are influencing economic judgments. Normative and Progressive Economics items are jumbled in the upper right portion of the graph, with the largest degrees of intergroup divergence and the strongest model fits. In the bottom left quadrant we find most of the items on the other two factors.

Given how deeply established many Neoclassical ideas are in the economics community today, it is little surprise to see economists forming a greater consensus on topics such as the importance of property rights (an item in the Neoclassical Principles subscale) versus the long- or short-run effects of austerity (items in the Progressive Economics subscale). And with that relatively tight consensus, the predictive power of moral judgments is weaker.

Recall that economists as a whole have their Liberty channels turned up to relatively similar levels (Table 5 and Figure 1). It isn’t very surprising then, that economists have a relatively large degree of consensus in their economic judgments on our Libertarian Social Policy subscale—which includes propositions that suggest a positive effect of immigration and free trade, as well as a negative view of constraints on marijuana. And here we find the model for using moral judgments to predict economic judgments is weakest. With the relatively high economic judgment consensus, there isn’t very much room for moral judgments to predict the analytical perspectives of economists.

David L. Prychitko (1997) argued that economists tend to drift towards certain competing schools of thought within the discipline, and that these schools of thought are grounded in particular theoretical norms and axioms that provide an analytical framework to assess economic phenomena, make predictions, and provide explanations. We contend based on the results of our analysis that it is the moral narratives, worldviews, and intuitions of the economist that nudge them towards a particular school of thought and economic way of thinking.

Using self-affiliated schools of thought is just one of many ways we could divide up economists to get groups with economic judgment scores for comparison. We tested our finding that less consensus means greater moral judgment influence by dividing up economists using a clustering method that focused on the similarity of their economic judgments. We report these results in Appendix C, with repeats of Tables 3, 5, 7, and 8 using the alternative methodology. However, no matter whether we organize economists based on their school of thought preference or divide up economists according to the similarity of their economic judgments, we still find that the larger the level of
disagreement on economic propositions, the more moral judgments can predict economic judgments. And this finding holds for both positive and normative economic propositions.

While moral judgments can clearly be used to predict some economic theory views, that doesn’t mean they can be robustly predictive of every economic proposition or issue area. We think that when economists are debating, particularly on the kinds of items featured on the Progressive Economics factor subscale, their moral judgments have a stronger influence over their substantive findings than when economists are engaged in research were there is a fairly large consensus.

VI. Conclusion

The Samuelson-Friedman hypothesis says that an economist should be able to objectively consider the proposition “Increasing minimum wages typically benefits the current and future labor force on net,” and that any disagreement about the question is methodological. Such a proposition doesn’t ask the economist whether increasing the minimum wage is important for ending income inequality or ensuring a livable wage. It doesn’t require a value judgment on the nature of the minimum wage or even growth in the labor market. The matter should simply require an empirical consideration of how businesses respond to increases in minimum wages, how such increases might shift incentives for those in or out of the labor force, what increases in consumption or prices might influence the economy the worker lives in, and/or other ways the minimum wage might positively or negatively or neutrally influence economic growth.

Yet, we can clearly see that the disagreements between the schools of economic thought are predictable by the moral judgments of economists in those groups. The Myrdal-Heyne hypothesis says that economists frame questions from their own particular, subjective worldview, and that this leads to value judgments infiltrating the methods used to consider economic phenomena. Its not that economists are picking and choosing their data explicitly to get the findings they want (though an unscrupulous economist could), instead what the moral judgments do is shape the approach an economist takes to considering a research subject like the effect of the minimum wage.

For economists who consider Equality to be more relevant to their moral worldview than Proportionality, and who have their Care channel turned up much higher than L.A.S., their moral intuition will say that the minimum wage is probably a good thing for society. Then when they are building their model, these economists will wind up emphasizing the use of case studies—which consistently find neutral or positive minimum wage increase influences on the labor market (Card and Krueger 1994, Osterman 1995)—as opposed to time-series data (Neumark and Wascher 1992). The same happens in reverse for economists whose moral judgments do not instinctively equate the social effects of

35 Further methodological debates have focused on whether or not to include nominal denominated wage variable in time-series models that use long periods (Keil et al. 2001, Neumark and Wascher 2006). We are proposing that the underlying moral worldview of the economist is what leads them (probably unconsciously) to their methodological view on such a statistical matter. In this sense, the economist isn’t really taking off their “political philosopher hat” when doing empirical research.
reducing or maintaining the minimum wage with moral harms.

The findings of our analysis suggest that even on economic matters where the question being considered is strictly a matter of empirical observation that there are still values present in the way the economist approaches their work. Friedman (1978) argued that while he doubted “there are any value free economists… that doesn't mean there can't be value free economics.” That might be true, but the scope of what constitutes value free economics may be a lot smaller than what Friedman envisaged.

McCloskey (1984) has long argued that economists need a better understanding of the rhetorical nature of their work, and that such a change would dramatically improve the ability of economists to engage in socially meaningful progress. A deeper understanding of the relationship between moral judgments and the process of economic research should not only shed light on the discussion about why economists disagree, but it should also help the process of formulating the future of the discipline.

To reiterate, this should not be interpreted as a condemnation of economics. Economics is a social science, and its practitioners are subject to political bias just like practitioners of the other social sciences (e.g., social psychology; see Duarte et al., 2015). Our findings therefore raise a warning flag when politicians and journalists cite economic research to bolster their favored conclusions. In the development of legislative language, or citation of economic research, or quoting of economists as experts, there should be recognition that value judgments are present in the economics under consideration.

Further research should add to our sample and allow for more nuanced consideration of the kinds of moral judgments that are most embedded in economic theories. Our cluster analysis would be more robust with a greater number of respondents to filter. And our regression analysis would provide more conclusive results with questionnaires that focus in on specific topics and are targeted at experts in the particular field.

Overall, our findings support the arguments set forth by Myrdal-Heyne that economics is value-permeated. Our findings cast doubt on Samuelson-Friedman’s contention that economists can separate their values from empirical, technical conclusions. The influence of moral judgments appears to be stronger in areas of economic inquiry where consensus amongst economists is limited—and perhaps the lack of consensus is what creates more room for value-permeation. Yet, it is inescapable that on net there is a relationship between the moral judgments of economists and their substantive, technical conclusions.

36 Also see Friedman (1968) arguing, “A scholar's basic values undoubtedly affect the way he resolves the inevitable uncertainties in his scientific judgments when he comes to recommend policies… [but] no value judgments can explain why I have been led to the conclusion that… inflation is primarily a monetary phenomenon.”

37 Heyne (1978) similarly argued that says the “rigid adherence” to the “untenable position” that economics is value-free severely restricts economic dialogue and inquiry.

38 We concur with Shiller (2015) that just like physics has its critics but is still embraced for what its experiments can nevertheless tell us about our existence, so too should economics be embraced for the value it can create, not rejected but it doesn’t live up to some strict falsification standard.

39 For example, members of the media should recognize the potential for economic research findings to be influenced by the values of the economist, and caveat the reporting of economic findings appropriately.
Appendices

Appendices available online at http://moraleconomist.com

- Appendix A provides the full survey text.
- Appendix B reports additional data about our MFEQ respondents, including political ideology, school of economic thought scores on each of the moral foundation items, an alternative organization of Figure 1, and all standardized betas for Table 8.
- Appendix C reports data for economists grouped by cluster analysis.

References


