Being Seen: How Markets Impact Our Moral Sentiments

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Abstract:

Markets expose us to other people, yet there are many ways to be seen. Market exposure may expand the scope of our moral sympathies causing us to view other people as moral equals. Alternatively, commodification and alienation may prevent us from recognizing the moral status of others. We use text analysis on a corpus of *New York Times* articles from 1987-2007 to show how market interactions impact our moral sentiments. We find robust evidence in support of the Smithian hypothesis that market exposure expands the scope of our moral sympathies and against the Marxian hypothesis that market exposure reduces our moral perception of others.

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1 Introduction

Market societies tend to be happier (Gropper et al. 2011; Gehring 2013), healthier (Stroup 2007), and wealthier (Berggren 2013; Gwartney et al. 1999), with lower levels of income inequality (Apergis and Cooray 2015), infant mortality (Roberts and Olson 2013), and corruption (Goel and Nelson 2005), and greater levels of social mobility (Corak 2013; Geloso and Callais 2021), education, and life expectancy (Roberts and Olson 2013). Yet, for all but committed consequentialists, these robust positive effects are a necessary but insufficient defense of market exchange against its moral critics. Contemporary critics such as Michael Sandel (2012: 12) point to how commodification and exchange crowd out moral values. Pricing "the good things in life can corrupt them", even if it generates otherwise positive results. Historical critics like Karl Marx (2000: 32) identify alienation inherent in capitalist production as the morally corrupting force. Alienation causes us to view ourselves and others as mere commodities, resulting in the "*estrangement of man* from *man*". In either account, markets exert a corrupting influence on our morality as the resulting commodification "fails to value human beings in the appropriate way—as persons worthy of dignity and respect, rather than as instruments of gain and objects of use" (Sandel 2012: 13).

Pro-market philosophers have taken these moral criticisms head-on (see Brennan and Jaworski 2016), yet despite the deontological roots of the criticism, "the common concern of the moral critics of markets (i.e. that markets are morally corrupting) is at root an empirical, rather than a philosophical, claim" (Storr and Choi 2019: 12). Do markets cause us to see others as mere commodities or do they cause us to see others "in the appropriate way" as moral equals worthy of respect and dignity? Empirically addressing this question is not easy. The problem: the empirical measurements of morality are severely lacking.

The most thorough attempt at measuring morality comes from Choi and Storr (2020). They consider thirty-three possible measurements for morality including measures of trust, tolerance, inequality, and the acceptance of unethical behavior. However, all but four of the measures they consider are taken from the World Values Survey (WVS). The WVS is administered in three to five-year period waves starting in 1981.[1] Only eleven countries were included in the first wave

[1] There have been seven waves of the WVS. The first in 1981-1984 was administered to eleven countries. The second wave (1990-1994) had twenty-one countries; the third wave (1995-1998) had fifty-six countries; the fourth wave

(1981-1984), and it was not until the sixth wave (2010-2014) that there were sixty or more countries participating in the survey. Additionally, there are major inconsistencies amongst the questions asked to each country in each wave.[2] Any attempt to use the WVS to capture morality is limited to a small panel, a large enough cross-section only in recent waves (the approach taken by Choi and Storr [2020] and Storr and Choi [2019]), or time-series with a few predicable countries.[3]

Given these limitations, WVS measures can be used to comment on how moral values differ across more or less market-oriented societies, but they cannot be used to comment on how our moral values change as we are exposed to other people through markets. For example, the tolerance measure in the WVS can suggest that market-oriented societies are more tolerant of foreigners in general, but not that direct exposure to immigrants in the labor market causes toleration. This is particularly problematic if there is sufficient reason to believe there are deep historical reasons for being both market-oriented and tolerant. Yet if Marx or Sandel are correct, then as more and more of our interactions take place through markets, we should see an increase in the corruption of our moral perceptions of others. The existing measures of morality fail to capture a relational measure of our moral concerns which can then be regressed on dyadic measures of market interaction to fully test the Marxian prediction.

We provide such a measure. We apply text analysis tools on *New York Times* articles from 1987-2007 to derive a relational measure of moral sentiments. Our novel sentiment measure identifies the amount of moral language used when discussing a country or its people. We equate using more moral language with an expansion of our moral sympathies and a perception of moral agency in others, and the use of less moral language with the objectification of other people and a perceived indifference to their moral status. We then use this measure to test the empirical prediction that stems from the Marxist position on how markets influence our moral sentiments using three direct measures for market exposure: trade, immigration, and remittances. We find robust evidence against the Marxian prediction that market exposure will reduce our moral

(2000-2004) had fewer countries at forty-one; the fifth wave (2005-2009) had fifty-eight; wave six (2010-2014) had sixty; and wave seven (2017-2020) had the most with eighty-eight countries.

[2] There are also major limitations with the survey questions themselves (see Ariely and Davidov 2011; Davidov et al. 2014; Hurtienne and Kaufmann 2012; and MacIntosh 1998).

[3] Callais et al. (2021) use matching methods to identify a causal relationship between markets and these morality measures. Nevertheless, they are still limited in which morality measures could be tested due to issues with coverage.

perceptions of others. Instead, our results suggest that an increase in market interactions with a country will expand the scope of our moral sympathies, a position we associate with Adam Smith.

The rest of the paper proceeds as follows. Section two outlines the theoretical debate over how markets impact our moral sentiments. Section three explains our novel measure of moral sentiment and other data. Section four outlines our empirical strategy and presents our empirical tests. Section five concludes.

2 Being Seen: Alienation or Sympathy?

Markets expose us to other people, yet there are many ways to be seen. Do markets cause us to see others as mere instruments in the pursuit of profit? Or do markets expand our moral sympathies and cause us to see others as moral equals worthy of respect and dignity? This is, as Storr and Choi (2019) suggest, fundamentally an empirical question. And while we do not attempt to resolve the underlying philosophical debate, both perspectives provide theoretically grounded, testable hypotheses about how markets work to impact our moral sentiments.

The Marxist position that markets will corrupt our moral relations stems from Marx's (2000) theory of alienation. Alienation leads to the commodification of ourselves and others, and it is this commodification that corrupts our moral perception. For Marx, alienation and commodification are inherent to interactions which rely on the monetary system, the private ownership of capital, and the division of labor. The more commodities labor produces, the more labor becomes commoditized, and the more we devalue others by treating them as the commodities we perceive them to be. As Marx claims, "The *devaluation* of the world of men is in direct proportion to the *increasing value* of the world of things" (Marx 2000: 28).

In the Marxist framework, human essence is defined, in part, by meaningful labor. Thus, the objectification of labor leads directly to the commodification of oneself. And since social relations are taken as inseparable from relations of production, this self-alienation is then projected onto others. "An immediate consequence of the fact that man is estranged from the product of his labor, from his life-activity, from his species being", Marx (2000: 32) suggests, "is the *estrangement of man* from *man*" which is "realized and expressed only in the relationship in which a man stands to other men. Hence within the relationship of estranged labor each man views the other in accordance with the standard and the relationship in which he finds himself". Because I

believe I am a mindless automaton of production, I will not hold you in any higher regard. Thus, the relations of production in the marketplace directly impede our moral recognition of others and deprives us of receiving or giving to others full moral consideration. As our lives become governed by the dictates of market production, we cease to be governed by our ethical facilities. As Marx (2000: 51-52) phrased it:

> "How can I live virtuously if I do not live? And how can I have a good conscience if I do not know anything? It stems from the very nature of estrangement that each sphere applies to me a different and opposite yardstick – ethics one and political economy another; for each is a specific estrangement of man and focuses attention on a particular field of estranged essential activity, and each stands in an estranged relation to the other."

Marx's theory has a straightforward implication for how markets impact how our moral perceptions of others. An increase in exposure to others through markets will cause us to see ourselves and others as mere commodities, as dehumanized objects of moral indifference. Market "[p]roduction does not simply produce man as a *commodity*… it produces him in keeping with this role as a *mentally* and physically *dehumanized* being" (Marx 2000: 36).

On the other side of the debate is the position that an increase in market exposure will expand the scope of our moral sympathies as markets allow us to see other people as fellow humans, worthy of dignity and respect. We equate this position with a *doux commerce* reading of Adam Smith.[4] Smith (1853) believed the two most significant prerequisites for the development of moral sympathy were shared circumstance and confluence of interests. The theoretical foundation for how markets can expand the scope of our moral sympathies depends on the extent to which markets encourage and create a shared set of circumstance and interest.

Consider the often-quoted passage in the *Theory of Moral Sentiments* about the earthquake and the finger:

> "Let us suppose that the great empire of China… was suddenly swallowed up by an earthquake, and let us consider how a man of humanity in Europe, *who had no sort of connection with that part of the world*, would be affected upon receiving intelligence of this dreadful calamity. He would, I imagine, first of all, express very strongly his sorrow for the misfortune of that unhappy people, he would make many melancholy reflections upon the precariousness of human life, and the vanity of all the labours of man, which could thus be annihilated in a moment. … And when all this fine philosophy was over, when all these humane sentiments had been once fairly expressed, he would pursue his

[4] Doux commerce is a term borrowed from Montesquieu by Hirschmann (1977) to describe a range of theories that began to emerge in the 18th century that had the common feature of viewing market activity as a positive force for promoting moral virtue. Modern defenders of this position include Boettke (2004), Mclosky (2006), Lavoie and Chamlee-Wright (2000), and Storr and Choi (2019).

> business or his pleasure, take his repose or his diversion, with the same ease and tranquillity, as if no such accident had happened. The most frivolous disaster which could befall himself would occasion a more real disturbance. If he was to lose his little finger to-morrow, he would not sleep to-night; but, *provided he never saw them*, he will snore with the most profound security over the ruin of a hundred millions of his brethren, and the destruction of that immense multitude seems plainly an object less interesting to him, than this paltry misfortune of his own. To prevent, therefore, this paltry misfortune to himself, would a man of humanity be willing to sacrifice the lives of a hundred millions of his brethren, *provided he had never seen them*?" (Smith 1853: 192-193; emphasis added)

Traditional emphasis is given to Smith's (1853: 193-194) later claim in the passage of how we can overcome and counteract our "strongest impulses of self-love" with "reason, principle, conscience", but we want to emphasize a different point about how those who suffered harm *had not been seen*. Reason, principle, and conscience are not as strongly needed to overcome our self-love for actions related to those to whom we have natural affection. While Smith (1853: 323) believed that people are naturally inclined to feel greater sympathy towards members of their own community due to closer proximity, shared customs, and greater codependence of interests, there are nonetheless ways to expand our sympathies to those beyond our close circles. Simply put, there are other ways to *be seen*. Market exchange is one such way. As Smith (1853: 328; emphasis added) suggests, "[a]mong well–disposed people, the necessity or conveniency of mutual accommodation, very frequently produces a friendship not unlike that which takes place among those who are born to live in the same family. Colleagues in office, *partners in trade*, call one another brothers; and frequently feel towards one another as if they really were so." Markets connect us to other people and forces us to see them. And "[w]e respect the face of a man whom we see every day" (Smith 1853: 329).

Trade involves a mirroring bargaining relationship, with a shared goal to arrive at an agreeable consensus for exchange. Commercial activity thus connects us and encourages us to identify with our partners in trade. As such, markets provide opportunity to develop mutual sympathy between people. In contrast to Marx's dehumanizing claim, a *doux commerce* reading of Smith suggests that markets are fundamentally humanizing (Clark 1992).

Smith's theory of moral sentiments has a straightforward implication for how markets impact how our moral perceptions of others. An increase in exposure to others through markets will cause us to see ourselves in others, and others in ourselves. As we develop sympathy with our partners in trade, we more strongly see others as moral equals worthy of praise and blame.

The theoretical positions outlined above generate two competing hypotheses.

The Smithian Hypothesis: An increase in exposure to others through markets will *expand* the scope of our moral sentiments.

The Marxian Hypothesis: An increase in exposure to others through markets will *reduce* the scope of our moral sentiments.

In order to test these hypotheses, we need (1) the degree to which agents ascribe moral agency to others and (2) a dyadic measure of market interaction between them.

3 Measuring Sentiments and Markets

3.1 Measuring Moral Sentiments

We propose a method for measuring moral sentiments that is premised on observed verbal behavior. Our measure can be mapped onto the hypotheses above as we are less likely to use moralizing language when describing the actions of those to whom we don't ascribe moral agency. When we write about a lion eating a gazelle, it's done with objective indifference as we don't believe the lion has moral agency. Alternatively, when we write about a person cheating on their spouse, we're more likely to use language of moral indignation. Correspondingly, we equate using more moral language with an expansion of our moral sentiments and using less moral language with a reduction of our moral sentiments.

To produce our sentiments measure, we leverage a text-as-data approach. Text-as-data methods allow researchers to extract quantifiable characteristics of large corpora of texts that are amenable to subsequent statistical analysis. These methods have become more commonplace in economics in recent years (Gentzkow et al. 2019). We specifically employ a dictionary-based text-as-data method which uses "the rate at which key words appear in a text to...measure the extent to which documents belong to particular sources" (Grimmer and Stewart 2013: 274). This automated approach allows us to take full advantage of the quantity and richness of textual data.

Text analysis has been employed on diverse corpora of texts including political texts (Laver et al. 2003; Klemmensen et al. 2007), newspapers (Kaneko et al. 2020), social media posts (Hutto

and Gilbert 2014), and academic journals (Harris et al. 2021). Our measure uses newspapers to extract the moral salience of articles written about a country or its people. Previous studies have shown newspapers to contain morally latent rhetoric on subjects as diverse as climate change (Feinberg and Willer 2013), stem cell research (Clifford and Jerit 2013), U.S. military action (Bowman et al. 2014), and human rights attitudes (Stolerman and Lagnado 2018). Further, because newspaper articles generally contain longer strings of text than other types of media, such as tweets, researchers can more accurately classify newspaper articles' moral dimensions (Hopp et al. 2021). Additionally, since major newspapers cover events from around the world, we can get a much greater cross-section of countries compared to if we used text based on campaign speeches, political platforms, or social media. As such, newspaper articles are an ideal corpus to capture our moral sentiments about other countries.

Our content analysis proceeds in two steps. We begin with the full corpus of *New York Times* articles published between 1987 and 2007.[5] The *New York Times* is among the top three highest-circulating newspapers in the U.S. (PEW Research Center 2021) and features the most in-depth coverage of international news events. This corpus contains over 2.6 million individual articles with a cumulative sum of 1.14 billion words, the equivalent of 1900 copies of *War and Peace*. We tag each article according to which of 179 countries the article mentions using three forms of country references: country name (e.g. "Poland"), country adjectival ("Polish"), and country demonyms ("Poles").[6] This classification strategy allows us to capture the vast majority of discourse related to a specific country and its people in our data. Table A1 presents a complete list of reference countries.

After tagging each article in our corpus, we score tagged articles for their use of moral language using the Extended Moral Foundations Dictionary (eMFD) developed by Hopp et al. (2021). The eMFD builds on the Moral Foundations Dictionary (MFD) created by Jesse Graham and Jonathan Haidt (2009) and provides a variety of benefits compared to the original. First, while the MFD was constructed a priori by a small group of scholars, the eMFD was built using a crowd-driven approach in which hundreds of coders annotate corpora of text for its moral content. Conveniently, the eMFD training corpus was built exclusively of newspaper articles including,

[5] The articles published in the *New York Times* between 1987 and 2007 are the largest complete collection of newspaper articles that are digitized for text-analysis and publicly available.

[6] An individual article may be tagged as referencing multiple countries. Approximately 30 percent of all articles reference one or more countries in our sample.

among others, the *New York Times*. Second, the eMFD contains 3,270 moral words, more than 10 times the number of words in the MFD dictionary. This greater breadth allows us to capture a more-holistic measure of moral language use. Third, the breadth of language in the eMFD also allows us to avoid a major limitation of the MFD which is that it contains multiple variants of words likely to be used to objectively cover a news report. For example, the original dictionary for the "Harm-Vice" category includes five variants of "kill" which together constitute one-seventh of the total dictionary for that category. The eMFD undoubtedly contains similar words that may be used objectively despite their heavy moral connotations; however, these words represent a much smaller percentage of the total dictionary, minimizing the effect of objectively used moral terms. Despite its recent creation, the eMFD has been applied in numerous text-as-data studies (see Chen et al. 2021; van Vliet 2021; Priniski et al. 2021; and Hopp et al. 2021).

The eMFD classifies moral language along two dimensions: moral sentiment and word valence. Moral sentiment bins the moral foundation of a word using five categories: care, fairness, loyalty, authority, and sanctity. Word valence denotes the overall positive-negative use of a word (called virtue and vice, respectively). Figure 1 illustrates a subset of the complete eMFD broken down by sentiment and valence.[7]

[Insert "Figure 1: Extended Moral Foundations Dictionary Words" about here]

Our text analysis is facilitated by Linguistic Inquiry and Word Count (LIWC) (Tausczik and Pennebaker 2010). Using LIWC we compute the relative frequency of foundation and valence-specific subsets of the complete eMFD across the full corpus of *New York Times* articles. To construct a panel dataset, we take the average relative frequency within tagged country and year. More formally, for article *i* in year *t* referencing country *c* and relative frequency ϕ, we define morality measure μ as:

$$\mu_{ct} = \frac{1}{n} \sum_{i=1}^{I} \phi_{cti} * 10000$$

The raw measure of moral language is then multiplied by 10,000 to make the coefficients visible in the regressions, giving us the equation above.

[7] The eMFD allows users to assign foundation-specific probabilities to each word in the dictionary. However, for ease of interpretation, we assign each word to a specific foundation according to its highest foundation probability.

3.2 Measuring Market Exposure

In comparison to morality, measuring market exposure is relatively straightforward. However, unlike the majority of the studies in this literature, we cannot measure 'markets' with the Fraser Institute's measure of economic freedom as it does not capture a direct measure of market exposure with a country. Instead, the coefficient on economic freedom would be reflective of how we view and discuss countries that are more economically free, regardless of their connection to us. Such insights may be important, but they cannot be used to test the Smithian or Marxian hypotheses.[8] Since the hypotheses we aim to test pertain to our moral relations, our measure of market exposure must too be dyadic.

We use three measures of market interaction. The first measure we use is the bilateral trade flow between the United States and each of the 179 reference countries from the *Correlates of War*. We take the sum of imports and exports, measured in inflation-adjusted billions, to construct the most inclusive measure possible of the trade interaction between the United States and a reference country.[9] As a secondary measure of market interaction, we collect immigration statistics from the U.S. Immigration and Naturalization Service. To the extent that exposure to immigrants primarily takes place in the labor market, it is an appropriate secondary measure of market interaction. In this data we observe counts of immigrants into the United States broken down by country of origin. Data is complete for 177 countries. The last measure we use to proxy the extent of market interactions with another country is remittances. This measure is similar to immigration in that it likely captures exposure through the labor market. This data is measured in millions and is available from the World Bank for 166 countries.

3.3 Controls

How we morally view a country is determined by many factors beyond the extent to which we interact with it through markets. We control for a variety of variables that may affect the moral language used by newspapers to describe reference countries. Since research on the determinants

[8] Table A2 in the appendix controls for economic freedom. This is not used in our main model (Table 4) as it reduces our sample size by two-thirds. Economic freedom is insignificant across all specifications.
[9] Our main results also hold for imports and exports separately.

of news-media moral language is sparse, our selection is guided by intuition. Table 1 provides brief descriptions and data sources.

[Insert "Table 1: Variable Descriptions" about here]

Of first importance is the potential for political and/or interstate violence in a reference country. Political and interstate violence are likely covered in highly negative moral terms in U.S. newspapers. For this reason, we control for societal and interstate violence using the Center for Systemic Peace's Major Episodes of Political Violence (MEPV) data. Our MEPV series is constructed as the sum of the magnitudes of civil and interstate violence and war with higher scores indicating greater violence. Similarly, since different systems of government may foster unique moral news coverage, we control for governance structure using the Polity5 dataset. Polity scores run from -10 (heredity autocracy) to 10 (established monarchy).

We also expect economic phenomena in a reference country to shape the moral coverage of *New York Times* articles. In this spirit, we control for societal income inequality, using the Gini coefficient, and income, as measured by inflation-adjusted per capita GDP.

Finally, we control for social and human capital variables which likely influence domestic news coverage. The religious composition of a country is inextricably tied to the moral content of U.S. news coverage. In response, we control for the percent of a country's population that is Christian and Islamic. Average education attainment may also impact news content. Consequently, we control for the average years of schooling within each reference country. We also expect definitions of moral acts to vary across cultural and ethnic settings, so we control for ethnic fractionalization. Ethnic fractionalization measures the probability that two individuals within a country are not from the same ethnic group. The degree of equality in gender-rights often shape the moral framing of US media coverage of other countries. Since a comprehensive series on gender rights is not available, we employ the female labor force participation rate as a proxy for gender rights. Finally, since internet access partially drives non-market exposure between the U.S. and a reference country, we control for population internet access. Table 2 provides summary statistics for our variables used.

[Insert "Table 2: Summary Statistics" about here]

Although controlling for potential confounding variables is important, appendix tables A3, A4, and A5 illustrate that our subsequent results are robust to a variety of vectors of control variables.

4 Empirical Approach and Analysis

Both our moral sentiment measure and our market exposure measures are relational and vary between pairings of actors and across time. For this reason, we employ a country-level panel design. Given the potential for systemic time-invariant differences between countries that are correlated with our morality measure, we employ a fixed effects estimation strategy. Our model includes country and year fixed effects so that comparisons are made within countries and years. More specifically, we model:

$$Y_{ct} = \beta_0 + \beta_1 \tau_{ct} + \beta_i X_{it} + \alpha_c + \delta_t + \epsilon_{ct}$$

where Y_{ct} is a measure of morality for country *c* in year *t*, τ_{ct} is a measure of market exposure, X_{it} is a vector of controls, and α_c and δ_t are country and year fixed effects, respectively.

Our analysis begins with a series of simple baseline regressions of trade, immigration, and remittances on the sum of all foundations and valences of moral language in the *New York Times* (henceforth "sum of moral language"). The results are presented in Table 3.[10] In all three models we observe a positive and statistically significant relationship between the measures of market interaction and the sum of moral language. Market interaction is correlated with greater moral language use.

[Insert "Table 3: Baseline Models: Trade, Immigration, and Remittances" about here]

Since our baseline results may be sensitive to a variety of confounding covariates, we re-estimate our main model with a battery of controls. The results are shown in Table 4. Table 4 illustrates that our findings are robust to the inclusion of numerous covariates. Further, the

[10] Of the three measures of market exposure, the results for immigration are sensitive to the inclusion of Mexico due to Mexico being a major outlier in terms of immigration numbers to the U.S. Our results in the main text are presented with a restricted sample that removes both Mexico and Canada given their geographical proximity to the U.S. and outlier nature on our market measures. Table A6 shows the full, unrestricted sample results.

coefficient results in Table 4 are similar to their baseline counterparts in Table 3, allaying concerns about omitted variable bias. Note also that our findings in Table 4 are robust to a variety of alternative control specifications. For details on this see Tables A3, A4, and A5. From Table 4 we can conclude that market interaction with another country, whether measured by trade flows, immigration, or remittances, has a positive effect on the total amount of moral language used when discussing a country or its people. We view this as affirmation of the Smithian hypothesis against the Marxian one.

[Insert "Table 4: Full Models: Trade, Immigration, and Remittances" about here]

4.1 Moral Foundations

The majority of empirical research on moral relations relies on the Moral Foundations Theory (MFT).[11] Introduced by Jonathon Haidt and Craig Joseph (Haidt and Joseph 2004), the MFT proposes that, while its expression varies widely across cultural contexts, morality is defined by a universal set of moral foundations. MFT highlights five key foundations: *care/harm* (related to our "ability to feel [and dislike] the pain of others. It underlies virtues of kindness, gentleness, and nurturance"), *fairness/cheating* ("related to the evolutionary process of reciprocal altruism. It generates ideas of justice, rights, and autonomy"), *loyalty/betrayal* (related to our ability to "form shifting coalitions. It underlies virtues of patriotism and self-sacrifice for the group"), *authority/subversion* (related to our "history of hierarchical social interactions. It underlies virtues of leadership and followership, including deference to legitimate authority and respect for traditions"), and *sanctity/degradation* (related to our concept of "disgust and contamination" and undergirds religiosity and the sense of purity).

While Tables 3 and 4 illustrate a general relationship between moral sentiments and market interaction, we can separate the dictionary by foundation to investigate which moral values are of primary concern. In Table 5, 6, and 7, we break down the moral language into the five foundations reported in the eMFD. We find that trade-driven moral sentiment is largely explained by authority, care, and loyalty-based moral language while immigration-driven sentiments are explained by

[11] See http://moralfoundations.org/publications/ for a list of relevant publications.

authority and fairness concerns. Remittances-driven sentiments are largely explained by authority and loyalty-based language.

[Insert Tables 5, 6, and 7: "Sentiment Foundations" about here]

4.2 Vice and Virtue

It is important to note that our results in tables 3-7 are about *more* or *less* moral language, not positive or negative language or whether we morally blame or praise other countries. It's entirely possible that we use more moral language about a country we trade with because we are morally chastising them for their perceived contributions to the misfortunes we face. For example, one could imagine a majority of the moral language used in articles about China to be full of inflamed language for their perceived contribution to outsourcing or, more recently, COVID-19. Smith may be correct that markets expand our sympathies, yet if our interactions sow nothing but division, markets may still be corrupting in some other sense.

Still, Smith's (1853) discussion on praiseworthiness and blameworthiness may provide some justification for believing that market interaction will generate an increase in moral praise rather than strictly an increase in moral blame. As Smith (1853: 166) claims:

> "Man naturally desires, not only to be loved, but to be lovely; … He naturally dreads, not only to be hated, but to hateful; … He desires, not only praise, but praise-worthiness; … He dreads, not only blame, but blame-worthiness … The love and admiration which we naturally conceive for those whose character and conduct we approve of, necessarily dispose us to desire to become ourselves the objects of the like agreeable sentiments, and to be as amiable and as admirable as those whom we love and admire the most. Emulation, the anxious desire that we ourselves should excel, is originally founded in our admiration of the excellence of others. … Nature, when she formed man for society, endowed him with an original desire to please, and an original aversion to offend his brethren. She taught him to feel pleasure in their favourable, and pain in their unfavourable regard. She rendered their approbation most flattering and most agreeable to him for its own sake; and their disapprobation most mortifying and most offensive."

Our natural desire to be praiseworthy and seek approbation doesn't suggest we will always act in praiseworthy ways, but it does suggest at least a tendency towards acting in such a way to please our brethren and avoid offense, particularly as we interact more with others.

Nonetheless, it is interesting to go beyond *that* we see others to investigate *how* we see others. Thankfully, the eMFD provides a way to do this too. In addition to the foundation

classifications, the eMFD classifies terms by their positive and negative valence, termed virtue and vice respectively. Vice terms include words like "fearful", "retribution", "betrayal", "discrimination", "flawed", "cruel", "hostility" and "rage". Virtue terms include words like "loyal", "celebrated", "compassion", "respect", "fair", "deserve", "credibility", and "duty". Table 8, 9, and 10 shows our usage of virtue or vice terms related to trade, immigration, and remittances, respectively. For trade-driven moral sentiments, an increase in virtue and vice-based moral terms contribute equally to the effect presented in Table 4. For immigration, we tend to use more vice terms than virtue terms, yet both contribute significantly to the overall increase in moral language. For remittances, virtue terms are positive but insignificant, while vice terms significantly contribute to our increase in moral language. Overall, these results suggest it's unlikely that the increase we see in overall moral language is only a result of us constantly blaming others and pointing out their moral faults. Markets expand the scope of our moral sympathies causing us to view other people as worthy of *both* praise and blame, rather than just moral scapegoats.

[Insert Tables 8, 9, 10: "Valence" about here]

5 Conclusion

The world is becoming increasingly more interconnected due in large part to the effects of global trade. And while globalization has generated significant material benefits, there are still major concerns over its potential moral costs (Dunning 2003). As more and more of our interactions with and exposure to people in other parts of the world are governed by the principles of market exchange, might we be losing part of our genuine human connection to others? This is an empirical question that has largely been left to philosophical conjecture due to a lack of methods to rigorously test it.

In this paper, we proposed a plausible method for performing such a test. Using a text-as-data approach on a corpus of *New York Times* articles between 1987 and 2007, we generated a relational measure of moral sentiments by extracting the relative frequency of moral language used in articles about a country or its people. Since our moral dictionary was based on the Moral Foundations Theory, we were also able to observe the specific moral concerns that contributed to the increase in overall moral language used. Additionally, by capturing the positive and negative

valence of the words, we were able to test whether the increase in our moral language showed up primarily as praise or blame.

As with the morality measures from the WVS, there are potential issues with our measure. However, these can generally be solved by increasing our pool of data. The type and frequency of moral language use in the *New York Times* could be skewed by a political bias amongst its authors given there are significant value differences in moral foundations across political perspectives (Graham et al. 2009). This could be mitigated in the future by sampling from a wider range of newspapers. Furthermore, like the WVS, this study is limited to a select number of years. Future studies might examine articles from a broader timespan to see if our findings hold across different periods. Lastly, we cannot entirely rule out emotive grounds as the reason for the increase in moral language use, but concerns about the sincerity, or the value of our moral language use, will always remain matters of ethics and metaphysics.

Nevertheless, we hope to have provided a promising method for the empirical study of markets and morality. Our primary results indicate that increased market exposure leads to people displaying a more salient concern for morality. This runs directly counter to Marx and Sandel's claims that market incentives crowd out, or act as substitutes for moral concerns, and lead us to objectify others. In turn, our results support Smith's theory that markets organize human interaction in a way that emphasizes the humanity of the people around us. As such, our results add to the empirical support for the claim that the marketplace is a moral space (Storr and Choi 2019).

Markets & Morality - **Appendix** Figures and Tables

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1 Descriptives

1.1 Variables

Table 1: Variable Descriptions

Variable	Description	Source
Dependent Variables		
eMFD (multiple)	Country-year average of sentiment scores for NYT articles. Based on the Extended Moral Foundation Dictionary.	Authors' calculations.
Independent Variables		
Trade	Sum of US export and imports to/from reference country.	Correlates of War.
Immigrants	Count of immigrants to the US from reference country.	US Department of Justice, Immigration and Naturalization Service.
Remittances	Sum of remittances to/from reference country.	Word Bank.
Controls		
MEPV	Sum of the magnitudes of civil and interstate violence and war.	Center for Systemic Peace.
Polity Score	Standard Polity score ranging from 0 (hereditary monarchy) to 20 (consolidated democracy).	Polity 5. Center for Systemic Peace.
Years of Schooling	Average number of years of schooling.	Barrow and Lee (2013).
Protestant	Percent of population that is protestant.	World Bank.
Islamic	Percent of population that is muslim.	World Bank.
Gini	Gini coefficient. Higher values of the Gini coefficient indicates greater wealth inequality.	World Bank.
GDP Per Capita	GDP per capita in 2010 USD.	World Bank.
Fraser Freedom	Measure of economic freedom.	Fraser Institute.
Ethnic Fractionalization	Index corresponding to the probability that two individuals are from different ethnic groups.	Drazanova (2019)
Internet Use	Perfect of population that uses the internet	World Bank
FE Labor Part Rate	Female labor participation rate.	Word Bank.

Table 2: Summary Statistics

Statistic	N	Mean	SD	Min	P(25)	P(75)	Max
Trade	3,383	10,184.1	38,343.3	0.0	76.5	4,205.6	544,015.1
Immigration	3,136	5,765.8	26,263.3	0.0	143.0	3,921.7	946,167.0
Remittances	3,225	1,427.6	3,351.1	0.0	13.1	1,230.0	40,888.1
MEPV	3,158	0.8	1.8	0.0	0.0	0.0	14.0
Polity Score	3,083	2.2	6.9	−10.0	−5.0	9.0	10.0
Average Years of Schooling	3,200	6.7	1.4	0.8	5.7	7.0	12.7
Percent Protestant	3,200	0.1	0.1	0.0	0.1	0.1	0.9
Percent Islam	3,200	0.1	0.2	0.0	0.0	0.0	1.0
Gini	3,717	41.9	10.1	20.7	33.7	49.5	65.8
GDP Per Capita	3,331	11,715.9	19,035.4	178.8	1,227.1	12,642.4	170,534.7
Fraser Freedom	1,206	6.5	1.1	2.4	5.8	7.4	8.7
Ethnolinguistic Fractionalization	2,997	0.4	0.2	0.0	0.1	0.6	0.8
Internet Use	3,035	7.8	16.3	0.0	0.00	5.9	90.6
Female Labor Participation Rate	2,925	49.6	17.1	8.0	38.5	60.6	90.7

1.2 Formulas

$$\mu_{ct} = \frac{1}{n} \sum_{i=1}^{I} \phi_{cti} * 10000$$

$$Y_{ct} = \beta_0 + \beta_1 \tau_{ct} + \beta_i X_{it} + \alpha_c + \delta_t + \epsilon_{ct}$$

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Figure 1: Extended Moral Foundations Dictionary Words

Note: Larger words indicates correlate to words that received higher probabilities within its eMFD foundation.

Table 3: Baseline Models: Trade, Immigration, and Remittances

	Sum of Moral Language		
	(1)	(2)	(3)
Trade	0.029**		
	(0.01)		
Immigration		0.154***	
		(0.06)	
Remittances			0.338***
			(0.10)
Observations	3341	3098	3186
R^2	0.111	0.117	0.115
Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level.

Table 4: Full Models: Trade, Immigration, and Remittances

	Sum of Moral Language		
	(1)	(2)	(3)
Trade	0.027***		
	(0.01)		
Immigration		0.141**	
		(0.06)	
Remittances			0.253**
			(0.10)
MEPV	1565.873***	1412.819***	1485.366***
	(503.02)	(504.54)	(510.72)
Polity2	-127.494	-122.977	-144.201
	(137.81)	(143.50)	(144.25)
Gini	-31.116	-37.164	-25.789
	(35.35)	(34.38)	(35.24)
GDP per Capita	0.189	0.169	0.241
	(0.17)	(0.17)	(0.15)
Ethnic Fractionalization	7956.725	4330.676	25789.080
	(24539.22)	(26090.93)	(22925.20)
Protestant	3915.905	4317.551*	4643.104*
	(2387.00)	(2460.64)	(2462.70)
Islam	-1143.029	-850.115	-1037.159
	(1580.10)	(1599.83)	(1704.55)
Internet Use	-63.223	-38.941	-67.063
	(42.45)	(47.81)	(42.39)
Years of Schooling	-453.605**	-442.007**	-487.825**
	(181.50)	(184.22)	(190.95)
FE Labor Part Rate	-204.798	-189.303	-255.474*
	(127.76)	(127.55)	(131.77)
Observations	2255	2226	2162
R^2	0.121	0.119	0.120
Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level.

Table 5: Sentiment Foundations - Trade

	(1) Authority	(2) Care	(3) Fairness	(4) Loyalty	(5) Sanctity
Trade	0.012***	0.005*	0.003	0.008***	-0.001
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Observations	2255	2255	2255	2255	2255
R^2	0.190	0.090	0.055	0.133	0.167
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Full Controls	Yes	Yes	Yes	Yes	Yes

Table 6: Sentiment Foundations - Immigration

	(1) Authority	(2) Care	(3) Fairness	(4) Loyalty	(5) Sanctity
Immigration	0.067**	0.020	0.047***	0.018	-0.011
	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
Observations	2226	2226	2226	2226	2226
R^2	0.194	0.079	0.058	0.129	0.172
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Full Controls	Yes	Yes	Yes	Yes	Yes

Table 7: Sentiment Foundations - Remittances

	(1) Authority	(2) Care	(3) Fairness	(4) Loyalty	(5) Sanctity
Remittances	0.125**	0.055	0.027	0.061**	-0.015
	(0.05)	(0.05)	(0.05)	(0.03)	(0.02)
Observations	2162	2162	2162	2162	2162
R^2	0.206	0.081	0.053	0.123	0.174
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Full Controls	Yes	Yes	Yes	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level. Control coefficients are truncated for brevity.

Table 8: Valence - Trade

	(1) Virtue	(2) Vice
Trade	0.014***	0.014**
	(0.00)	(0.01)
Observations	2255	2255
R^2	0.070	0.118
Country Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Full Controls	Yes	Yes

Table 9: Valence - Immigration

	(1) Virtue	(2) Vice
Immigration	0.043**	0.098*
	(0.02)	(0.05)
Observations	2226	2226
R^2	0.071	0.120
Country Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Full Controls	Yes	Yes

Table 10: Valence - Remittances

	(1) Virtue	(2) Vice
Remittances	0.057	0.196**
	(0.06)	(0.08)
Observations	2162	2162
R^2	0.069	0.119
Country Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Full Controls	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level. Control coefficients are truncated for brevity.

3 Appendix

Table A1: Reference Country List

Afghanistan	Comoros	Iran	Monaco	Slovenia
Albania	Costa Rica	Iraq	Mongolia	Solomon Islands
Algeria	Croatia	Ireland	Morocco	Somalia
Andorra	Cuba	Israel	Mozambique	South Africa
Angola	Cyprus	Italy	Myanmar	South Korea
Argentina	Czech Republic	Ivory Coast	Namibia	Spain
Armenia	Denmark	Jamaica	Nauru	Sri Lanka
Australia	Djibouti	Japan	Nepal	Sudan
Austria	Dominican Republic	Jordan	Netherlands	Suriname
Azerbaijan	East Timor	Kazakhstan	New Zealand	Swaziland
Bahamas	Ecuador	Kenya	Nicaragua	Sweden
Bahrain	Egypt	Kiribati	Niger	Switzerland
Bangladesh	El Salvador	Kosovo	Nigeria	Syria
Barbados	Equatorial Guinea	Kuwait	North Korea	Taiwan
Belarus	Eritrea	Kyrgyzstan	Norway	Tajikistan
Belgium	Estonia	Laos	Oman	Tanzania
Belize	Ethiopia	Latvia	Pakistan	Thailand
Benin	Federated States of Micronesia	Lebanon	Palau	Togo
Bhutan	Fiji	Lesotho	Panama	Tonga
Bolivia	Finland	Liberia	Papua New Guinea	Tunisia
Bosnia and Herzegovina	France	Libya	Paraguay	Turkey
Botswana	Gabon	Liechtenstein	Peru	Turkmenistan
Brazil	Gambia	Lithuania	Philippines	Tuvalu
Brunei	Georgia	Luxembourg	Poland	Uganda
Bulgaria	Germany	Macedonia	Portugal	Ukraine
Burkina Faso	Ghana	Madagascar	Qatar	United Arab Emirates
Burundi	Greece	Malawi	Romania	United Kingdom
Cambodia	Grenada	Malaysia	Russia	Uruguay
Cameroon	Guatemala	Maldives	Rwanda	Uzbekistan
Canada	Guyana	Mali	Samoa	Vanuatu
Cape Verde	Haiti	Malta	San Marino	Venezuela
Central African Republic	Honduras	Marshall Islands	Saudi Arabia	Vietnam
Chad	Hungary	Mauritania	Senegal	Yemen
Chile	Iceland	Mauritius	Seychelles	Zambia
China	India	Mexico	Sierra Leone	Zimbabwe
Colombia	Indonesia	Moldova	Singapore	

Table A2: Fraser Freedom Robustness Check

	Sum of Moral Language		
	(1)	(2)	(3)
Trade	0.051***		
	(0.01)		
Immigration		0.072	
		(0.09)	
Remittances			0.484***
			(0.12)
MEPV	1810.402***	1662.069**	2017.276***
	(639.85)	(642.15)	(653.28)
Polity2	43.109	16.558	53.138
	(156.85)	(157.39)	(154.86)
Gini	-10.395	-9.423	-5.739
	(50.46)	(51.76)	(50.43)
GDP per Capita	0.215**	0.243**	0.361***
	(0.11)	(0.12)	(0.11)
Ethnic Fractionalization	34854.775	40034.023	31104.280
	(30352.45)	(32580.29)	(29897.94)
Protestant	880.462	1171.605	952.652
	(2520.77)	(2577.32)	(2517.83)
Islam	-3171.315	-2948.447	-3518.295
	(2274.25)	(2264.91)	(2186.40)
Internet Use	-58.284	-57.107	-89.462**
	(45.54)	(48.38)	(44.91)
Years of Schooling	-539.536*	-496.464*	-593.003**
	(290.74)	(297.27)	(281.36)
FE Labor Part Rate	-114.872	-144.360	-139.511
	(136.75)	(140.48)	(138.11)
Economic Freedom Summary Index	-928.230	-885.572	-921.313
	(1497.50)	(1508.66)	(1599.30)
Observations	1028	1015	1012
R^2	0.230	0.227	0.239
Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level.

Table A3: Controls Robustness Check - Trade

	Sum of Moral Language							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trade	0.032*	0.030	0.030	0.030	0.030*	0.028**	0.030***	0.031***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)
MEPV	1738.366***	1789.070***	1794.588***	1601.950***	1509.362***	1551.752***	1574.077***	1593.296***
	(456.56)	(506.43)	(505.87)	(530.33)	(559.70)	(515.66)	(506.91)	(509.20)
Polity2		-84.249	-92.416	-107.588	-76.325	-76.330	-109.254	-108.181
		(125.60)	(124.81)	(131.86)	(133.20)	(138.34)	(137.80)	(138.18)
Gini			-67.219**	-55.134*	-56.031*	-32.470	-30.754	-31.195
			(33.67)	(31.04)	(32.38)	(35.08)	(35.79)	(35.63)
GDP per Capita				0.090	-0.049	-0.039	0.155	0.153
				(0.10)	(0.11)	(0.12)	(0.16)	(0.16)
Ethnic Fractionalization					12825.827	-1071.373	3776.229	2973.922
					(22960.06)	(24275.09)	(24271.83)	(24271.25)
Protestant						2900.999	2938.681	3749.368
						(2389.24)	(2478.23)	(2392.80)
Islam						-72.942	-153.313	-1184.097
						(1408.47)	(1515.20)	(1579.29)
Internet Use							-65.660	-66.612
							(41.18)	(41.02)
Years of Schooling								-453.455**
								(180.78)
Observations	3069	2996	2993	2779	2611	2306	2255	2255
R^2	0.131	0.132	0.134	0.134	0.141	0.113	0.118	0.120
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level.

Table A4: Controls Robustness Check - Immigration

	Sum of Moral Language							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Immigration	0.151***	0.160***	0.155***	0.184***	0.162***	0.152**	0.147**	0.147**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)
MEPV	1520.010***	1622.153***	1634.438***	1487.422***	1449.704***	1412.070***	1415.007***	1432.207***
	(450.65)	(491.89)	(488.75)	(500.52)	(535.36)	(514.65)	(507.63)	(509.79)
Polity2		-92.516	-95.881	-75.889	-54.141	-71.274	-105.057	-105.727
		(143.29)	(142.95)	(145.39)	(148.37)	(142.62)	(143.05)	(143.49)
Gini			-55.305*	-45.084	-44.536	-38.040	-36.674	-36.787
			(32.34)	(31.86)	(33.32)	(34.18)	(34.78)	(34.61)
GDP per Capita				0.089	0.039	0.028	0.140	0.139
				(0.12)	(0.12)	(0.12)	(0.16)	(0.15)
Ethnic Fractionalization					-1702.689	-2853.423	830.598	248.191
					(24593.80)	(25529.64)	(25816.98)	(25827.95)
Protestant						3084.557	3340.349	4166.333*
						(2428.24)	(2537.55)	(2462.43)
Islam						121.557	140.104	-887.403
						(1417.46)	(1528.18)	(1598.39)
Internet Use							-41.249	-42.252
							(46.26)	(46.10)
Years of Schooling								-440.544**
								(183.43)
Observations	2768	2703	2703	2531	2380	2278	2226	2226
R^2	0.127	0.128	0.130	0.121	0.127	0.112	0.117	0.118
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level.

Table A5: Controls Robustness Check - Remittances

	Sum of Moral Language							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Remittances	0.349***	0.311***	0.309***	0.318***	0.285**	0.231**	0.284***	0.281***
	(0.10)	(0.10)	(0.10)	(0.10)	(0.12)	(0.12)	(0.10)	(0.10)
MEPV	1763.538***	1882.628***	1888.143***	1772.569***	1667.574***	1484.531***	1500.802***	1519.785***
	(515.30)	(561.59)	(561.55)	(586.91)	(631.85)	(523.57)	(515.21)	(517.41)
Polity2		-162.980	-165.098	-144.281	-118.462	-90.566	-119.953	-121.004
		(151.07)	(150.46)	(151.17)	(153.03)	(145.12)	(144.39)	(144.90)
Gini			-52.107	-41.365	-41.414	-25.412	-25.233	-25.681
			(31.80)	(31.28)	(32.80)	(34.99)	(35.74)	(35.58)
GDP per Capita				0.080	-0.002	-0.021	0.188	0.185
				(0.12)	(0.12)	(0.13)	(0.14)	(0.14)
Ethnic Fractionalization					22834.096	15036.059	20237.066	19341.458
					(21098.22)	(22383.05)	(22525.06)	(22570.80)
Protestant						3398.325	3616.453	4415.248*
						(2445.93)	(2568.22)	(2463.88)
Islam						111.835	172.038	-1108.351
						(1449.84)	(1588.11)	(1701.59)
Internet Use							-68.413	-69.052*
							(41.79)	(41.67)
Years of Schooling								-486.456**
								(189.96)
Observations	2833	2766	2764	2610	2448	2209	2162	2162
R^2	0.136	0.140	0.141	0.136	0.141	0.111	0.116	0.118
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level.

Table A6: Full Models with Outliers: Trade, Immigration, and Remittances

	Sum of Moral Language		
	(1)	(2)	(3)
Trade	0.023***		
	(0.01)		
Immigration		-0.011*	
		(0.01)	
Remittances			0.220**
			(0.10)
MEPV	1549.532***	1441.551***	1478.494***
	(490.30)	(502.27)	(498.53)
Polity2	-133.027	-126.952	-143.823
	(136.23)	(143.40)	(142.56)
Gini	-30.475	-38.767	-24.601
	(34.44)	(33.75)	(34.29)
GDP per Capita	0.189	0.133	0.226
	(0.16)	(0.16)	(0.14)
Ethnic Fractionalization	7586.920	4374.639	24181.197
	(24350.53)	(26103.98)	(22806.67)
Protestant	3874.825	4241.391*	4613.921*
	(2356.39)	(2419.03)	(2426.96)
Islam	-1158.107	-886.735	-1061.291
	(1572.17)	(1591.73)	(1695.16)
Internet Use	-60.035	-29.013	-56.273
	(41.02)	(45.58)	(41.31)
Years of Schooling	-455.978**	-444.911**	-490.934**
	(179.77)	(182.46)	(189.57)
FE Labor Part Rate	-206.236	-198.090	-250.176*
	(125.70)	(128.65)	(129.90)
Observations	2291	2262	2198
R^2	0.121	0.118	0.119
Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes

*p<.10; **p<.05; ***p<.01. Standard errors in parentheses are clustered at the country level.

References

Ariely, G., Davidov, E. (2011). "Can we rate public support for democracy in a comparable way? Cross-national equivalence of democratic attitudes in the World Value Survey." *Social Indicators Research* 104(2): 271-286.

Apergis, N., Cooray, A. (2015). "Economic Freedom and Income Inequality: Evidence from a Panel of Global Economies- a Linear and a Non-Linear Long-Run Analysis." *The Manchester School* 85(1): 88–105.

Berggren, N. (2003) "The Benefits of Economic Freedom: A Survey." *The Independent Review* 8(2): 193–211

Brennan, J., Jaworski, P. M. (2015). *Markets without limits: Moral virtues and commercial interests*. Routledge.

Boettke, P.J. (2004). "Morality as Cooperation." In *Morality of Markets*, ed. P.J. Shah and P. Shah, 69–82. Delhi: Academic Foundation.

Bowman, N., Lewis, R., Tamborini R. (2014). "The Morality of May 2, 2011: A Content Analysis of U.S. Headlines Regarding the Death of Osama bin Laden," *Mass Communication and Society*, 17(5): 639-664.

Callais, J. T., Harris, C., Borchard, B. (2021). "Do Markets Corrupt Our Morals? A Causal Approach." Working paper.

Callais, J. T., Geloso, V. (2021). "Economic Freedom Promotes Upward Income Mobility." *Economic Freedom of the World* 189.

Chen, K., Duan, Z., Yang, S. (2021). "Twitter as research data." *Politics and the Life Sciences*.

Choi, G., Storr, V. (2020) "Measuring Markets and Morality". *Erasmus Journal for Philosophy and Economics*. 13(1): 42-60.

Clark, H. C. (1992). "Conversation and Moderate Virtue in Adam Smith's Theory of Moral Sentiments." *The Review of Politics*, 54(02): 185-210.

Clifford S., Jerit J (2013). "How Words Do the Work of Politics: Moral Foundations Theory and the Debate over Stem Cell Research" *The Journal of Politics*, 75:3, 659-671.

Corak, M. (2013). "Inequality from Generation to Generation: The United States in Comparison." In *The Economics of Inequality, Poverty, and Discrimination in the 21st Century*, ed. R. Rycroft. Santa Barbara: ABC-CLIO, LLC.

Davidov, E., Meuleman, B., Cieciuch, J., Schmidt, P., Billiet, J. (2014). "Measurement Equivalence in Cross-National Research." *Annual Review of Sociology* 40: 55-75.

Dunning, J. H. (2003). *Making Globalisaton Good: The Moral Challenges of Global Capitalism.* New York: Oxford University Press.

Feinberg M, Willer R. (2013) "The Moral Roots of Environmental Attitudes." *Psychological Science*. 24(1):56-62.

Gehring, K. (2013). Who Benefits from Economic Freedom? Unraveling the Effect of Economic Freedom on Subjective Well-Being. *World Development 50*, 74–90.

Gentzkow, M., Kelly B., Taddy, M (2019). "Text as Data." *Journal of Economic Literature*. 57(3): 535-574.

Goel, R. K., Nelson, M. A. (2005). Economic freedom versus political freedom: cross-country influences on corruption. *Australian Economic Papers*, *44*(2), 121-133.

Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S., Ditto, P. H. (2012) "Moral Foundations Theory: The Pragmatic Validity of Moral Pluralism." *Advances in Experimental Social Psychology*, 47, 55-130.

Graham, J., Haidt, J. (2009). "The Moral Foundations Dictionary." Computer file.

Grimmer, J., Stewart, B. (2013). "Text as Data: The Promises and Pitfalls of Automatic Content Analysis Methods for Political Texts." *Political Analysis*. 21: 267-297.

Gropper, D. M., Lawson, R. A., Thorne Jr, J. T. (2011). Economic freedom and happiness. *Cato Journal.*, *31*, 237.

Gwartney, J. D., Lawson, R. A., Holcombe, R. G. (1999). Economic Freedom and the Environment for Economic Growth. *Journal of Institutional and Theoretical Economic 155*(4), 643–663.

Haidt, J. (2007). The New Synthesis in Moral Psychology. *Science*, 316(5827), 998-1002.

Haidt, J., Joseph, C. (2004). Intuitive ethics: How innately prepared intuitions generate culturally variable virtues. *Daedalus*, *133*(4), 55-66.

Harris, C., Myers A., Carlen, S. Briol, C. (2021). "The Binding Force of Economics." *Advances in Austrian Economics*.

Hirschman, A. O. (1977). *The Passions and the Interests: Political Arguments for Capitalism Before its Triumph*. Princeton University Press.

Hopp, F. R., Fisher, J. T., Cornell, D., Huskey, R., Weber, R. (2020). The Extended Moral Foundations Dictionary (eMFD): Development and Applications of a Crowd-Sourced Approach to Extracting Moral Intuitions from Text. *Behavior Research Methods*, *53*(1), 232–246. https://doi.org/10.3758/s13428-020-01433-0

Hurtienne, T., Kaufmann, G. (2012). Methodological biases: Inglehart's world value survey and Q methodology.

Hutto, C., Gilbert, E. (2014). "Vader: A parsimonious rule-based model for sentiment analysis of social media text." In *Proceedings of the International AAAI Conference on Web and Social Media*, 8(1).

Kaneko, T., Asano, T., Miwa H. (2020). "Estimating Ideal points of Newspapers from Editorial Texts." *The International Journal of Press/Politics*, 26(3): 719-742.

Klemmensen, R., Hobolt, S. B., Hansen, M. E. (2007). "Estimating Policy Positions Using Political Texts: An Evaluation of the Wordscores Approach". *Electoral Studies* 26(4): 746-755.

Laver, M., Benoit, K., Garry, J. (2003). Extracting policy positions from political texts using words as data. *American Political Science Review*, *97*(2), 311-331.

Lavoie, D., Chamlee-Wright, E. (2000). *Culture and Enterprise: The Development, Representation and Morality of Business*. London/New York: Routledge.

MacIntosh, R. (1998). Global Attitude Measurement: An Assessment of the World Values Survey Postmaterialism Scale. *American Sociological Review*, *63*(3), 452–464.

Marx, K. (2000). *Economic & Philosophic Manuscripts of 1844*. Marxists Internet Archive. Retrieved November 8, 2021, from https://www.marxists.org/archive/marx/works/download/pdf/Economic-Philosophic-Manuscripts-1844.pdf.

McCloskey, D. N. (2010). *The Bourgeois Virtues: Ethics for an Age of Commerce*. University of Chicago Press.

Priniski, J. H., Mokhberian, N., Harandizadeh, B., Morstatter, F., Lerman, K., Lu, H., Brantingham, P. J. (2021). "Mapping Moral Valence of Tweets Following the Killing of George Floyd." *arXiv preprint arXiv:2104.09578*.

Roberts, J.M., Olson, R. (2013). *How Economic Freedom Promotes Better Health Care, Education, and Environmental Quality*. Washington, DC: The Heritage Foundation.

Sandel, M. J. (2012). *What Money Can't Buy: The Moral Limits of Markets*. Farrar, Straus and Giroux.

Smith, A. (1853). *The Theory of Moral Sentiments*. HG Bohn.

Stolerman, D., Lagnado, D. (2018). "The Moral Foundations of Human Rights Attitudes," *Political Psychology*, 41(3): 439-459.

Stroup, M. D. (2007). "Economic Freedom, Democracy, and the Quality of Life." *World Development* 35(1): 52-66.

Storr, V. H., Choi, G. S. (2019). *Do Markets Corrupt our Morals?* Springer International Publishing.

Tausczik, Y., Pennebaker, J. (2010). "The Psychological Meaning of Words: LIWC and Computerized Text Analysis Methods," *Journal of Language and Social Psychology," 29(1): 24-54.*

The Pew Research Center (2021). "The Newspapers Fact Sheet."

van Vilet, L., (2021). "Moral Expressions in 280 Characters or Less: An Analysis of Politician Tweets Following the 2016 Brexit Referendum Vote," *Frontiers in Big Data:* 4.