Using Culture and Identities to Improve Models of Action

by

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Dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor
of Philosophy in the Department of
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ABSTRACT

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Abstract

Recent work in cultural sociology has provided important insights into the processes underlying behavior, but does not adequately address the role played by situations in shaping action. Research also emphasizes process at the expense of content, helping us see *how* motives can shape action, without specifying *which* motives matter. This project addresses these shortcomings by synthesizing work on culture and action with perspectives from sociological social psychology, psychology, and the study of morality. I argue that identities, values, and morality are forms of culture that can motivate action, and that identities and values in particular help to explain consistencies in behavior across different contexts. I illustrate these general claims in three papers, included as chapters 2 through 4.

In chapter 2 I argue that a person's most salient identities form a core self that is perpetually active across situations, and that behavioral consistency occurs because people are motivated to act in ways that are consistent with this core self. However, a person's ability to successfully enact an identity in a given context also depends on possessing the necessary cultural skills and competencies. I illustrate the plausibility of my model using two published ethnographic studies.

In chapter 3 I argue that values also shape a wide range of behaviors, operate across many contexts, and can be processed quickly and automatically, consistent with

current models of culture and action. Using data from 25 European nations and a new hybrid propensity score/fixed effects methodology, I find that values predict 15 self-reported behaviors that occur in a variety of substantive domains (e.g., family, religion) and across 25 countries, but that which behaviors values predict depends on the national context. I strengthen the case for causality and draw a link to automatic cognitive processing using a real-time decision task from a large online survey.

In chapter 4 I use two nationally representative samples of the United States to show how various forms of moral culture are distributed across social and demographic categories. This lays a foundation for future work by providing insight into the moral motivations that can shape behavior for members of different social groups.

Taken together, these studies underscore the claim that culture matters for behavior and lay the groundwork for future research on culture and action.

Dedication

To my dear wife Kelley. Thanks for putting up with me!

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This research has benefitted greatly from the insights, criticisms, and yes, even editing services of members of my committee. I am particularly indebted to my chair, Stephen Vaisey, for his enthusiasm for my work and investment in me as a scholar.

1. Introduction

Human action is one of the most persistent puzzles in the humanities and social sciences – one with a profound real-world impact – and efforts to unearth behavioral processes have led to a host of encapsulated models and theories that often exist in relative isolation from one another. The animating aim of my research is to draw these disconnected traditions together to form a fuller, more complete model of action.

Fortunately, I am not alone in this interest. Recent work in cultural sociology has applied insights from cognitive anthropology, psychology, and neuroscience to the thorny issues surrounding behavior, but (at least) two crucial question remain (Cerulo 2010; Lizardo 2007; Vaisey 2009). First, current theorizing does not adequately address the role played by situations in shaping action. Second, recent approaches emphasize process at the expense of content. This helps us see *how* motives can shape action, without specifying *which* motives matter.

In the three chapters that follow, I address these two challenges by synthesizing work from cultural sociology with perspectives from sociological social psychology, psychology, and the burgeoning transdisciplinary study of morality.

Chapter 2 addresses the problem of cross-situational consistency in action at a theoretical level. Responding to a perspective that sees culture as fragmented and situationally-dependent, I highlight how one type of culture – identities – can create

consistencies in action, and the crucial role played by cultural and social resources in facilitating identity-motivated behavior.

Chapter 3 turns to values, a form of culture that also motivates action across contexts. Using data from 25 nations, I demonstrate that values predict many types of action that crosscut both behavioral domains and countries, but that national contexts play a crucial role in determining how values are tied to behaviors. Using an online survey task, I also show that values operate using the fast, automatic processes of the mind, consistent with recent models of action in cultural sociology.

Chapter 4 differs from the previous chapters in that it does not directly address the question of action, but lays a foundation for future work. In particular, I show how various forms of moral culture are distributed across the socio-demographic landscape. This provides useful information about the moral motivations of different groups of people, and insight into the types of behaviors they are likely to perform.

2. Addressing the Problem of Cultural Anchoring: An Identity-Based Model of Culture in Action[1]

This paper is a synthetic effort to address a longstanding problem in the sociology of culture, which Swidler succinctly outlined in her 2001 book, *Talk of Love*: "[t]he biggest unanswered question in the sociology of culture is whether and how some cultural elements control, anchor, or organize others" (206). That is, which cultural elements are causally prior to others? With regard to action, several treatments of this question have been given that have yielded important insights, including the importance of both cultural competencies (i.e., knowledge and skills) and motivations for behavior (Swidler 1986; Vaisey 2009). However, these approaches often focus on general mechanisms of cultural influence while leaving the cultural content involved unspecified. This omission makes it difficult to understand cross-context consistencies in action, in part because such consistencies rely on activation of the same cultural elements across situations.

I argue that identities are a type of cultural content that provides traction on the problem of cultural anchoring. I propose an identity-based model of action that combines elements from multiple perspectives including "toolkit" theory, work on cultural capital, and identity theory (a term I use to encompass both the structural work of Stryker and his colleagues as well as the control model associated with Burke and

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[1] This chapter is published in *Social Psychology Quarterly* volume 77, issue 3, pages 210-227.

Stets; Bourdieu 1990; Burke and Stets 2009; Stryker 2008; Swidler 2008). Given the vast amount of research these traditions represent, my synthesis is intentionally selective, aimed at using the strengths of each to address the problem of cultural anchoring. I begin by discussing prior attempts to address the anchoring problem and how they fail to provide an adequate answer to the question of cross-context consistencies in action, and then outline the theoretical claims on which my model is built. I then describe how the model unfolds in concrete contexts, and illustrate the plausibility of the model by examining prior empirical evidence for its claims.

2.1 Past Treatments of the Problem of Cultural Anchoring

The problem of cultural anchoring – that is, the issue of which cultural elements control others – is essentially a question of causal priority, and different scholars have proposed different answers to it. At midcentury, functionalists argued that internalized culture in the form of goals and values motivate action (e.g., Parsons and Shils 1951), but this perspective came under heavy fire and soon fell to one emphasizing external culture as embodied in social structures (e.g., Blake and Davis 1964; Wrong 1961).

In a 1986 paper, Swidler offered a third solution, one that blended the internal and external elements of culture and has come to be known as "toolkit" theory. Swidler argued that people have internalized a wide variety of culturally acquired knowledge and competencies that allow them to navigate the social landscape (c.f., Bourdieu 1990:52–65). At its most basic level, this suggests that people must act using the cultural

competencies that they have (Lizardo and Strand 2010; Swidler 2001:78–88) – a person cannot become a professional basketball player if he has never played the game, nor can a person succeed in academia if she has not learned to speak the intellectual lingo. Swidler further argued that people like to feel competent, and tend to seek out activities for which they already have the cultural equipment; after all, using the skills one already has is easy and efficient (Swidler 1986:275, 2008:616). A toolkit perspective also implies that cultural knowledge is not systematically organized at the individual level, and therefore cannot provide coherent reasons for action (c.f., Geertz 1973). Instead, action depends on external structures (such as situational cues) that activate the cultural competencies appropriate to particular contexts. This creates consistency of action in the absence of a coherent cultural model at the micro-level (Lizardo and Strand 2010:206–208).

The tenets of toolkit theory are elegant in their simplicity, but as Swidler noted, they do not fully address the problem of cultural anchoring (Swidler 2008:616). The claim that people use cultural "tools" to construct lines of action suggests *how* action is created without specifying *why* action is undertaken in the first place. That is, toolkit theory focuses on the cultural means of action without much exploration of the *motivations* – cultural or otherwise – that move actors towards one end or another (Vaisey 2010). Emphasizing the power of external structures to cue action provides a

partial solution, but accounting for action that crosscuts contexts becomes problematic since people sans contexts are generally not seen as motivated actors.

Dual-process models offer a different solution to the problem of cultural anchoring, one that gives more scope to individual motivations (Bourdieu 1990; Gross 2009; Vaisey 2009). While the details of these models vary, all adopt some form of the argument that cognitive processing occurs at two levels, one fast and effortless, the other slow and deliberate, and that behavior is primarily guided by culture accessible to the fast system. Such culture is automatically activated in relevant situations, making it causally prior to observable cultural expressions such as talk or action. It can include the knowledge and skills highlighted in toolkit theory, but can also encompass motivating constructs like attitudes, values, and moral worldviews (Gross 2009; Lizardo and Strand 2010; Vaisey and Lizardo 2010; Vaisey 2009). Dual-process models thus address the question of cultural anchoring by fleshing out the details of *how* culture shapes action, but also by providing an explanation for *why* people act.

Focusing on cognition allows dual-processes models to attain a high level of generality and a wide range of applicability, but comes at the cost of understanding the role cultural content plays in behavior. By content, I mean specific, culturally-shaped constructs such as values, attitudes, identities, particular skill sets (e.g., conversational skills), etc. Eliding content becomes problematic when trying to understand cross-context consistencies in action, which require us to know not just how or why people

act, but *when*. At first glance, dual-process models seem promising, for they identify an innate process that operates across situations. However, processes must always operate using concrete content, and universal machinery does little to solve the problem if different content is activated in each situation. So what determines which contents are activated?

Lizardo and Strand (2010) suggest that activation occurs when a match is detected between stored cultural content and the demands of the situation. While this may seem to be a simple case of situations cueing culture, in reality detecting a match is heavily shaped by the characteristics of the cultural content that a person has internalized. In part, this is because content can affect how situations are perceived (Burke and Stets 2009; Mead 1934). Self-definitional values, for instance, can direct information seeking (Verplanken and Holland 2002, study 3), and subjectively important identities are processed more quickly, guide recall better, and are more resistant to disconfirmation than unimportant identities (Markus 1977). This may be because subjectively important constructs are more cognitively accessible, or likely to be activated from memory (Bizer and Krosnick 2001; Fabrigar, MacDonald, and Wegener 2005; Schwartz 2010). Furthermore, the more often a construct is activated – whether automatically or through conscious effort – the more accessible it becomes (Berger and Mitchell 1989; Glasman and Albarracín 2006). If called up often enough, cultural constructs may become chronically accessible, or nearly always active (Forster and

Liberman 2007). In extreme cases, then, cross-context consistency in action might have little to do with a matching internal culture to the situation, and be guided largely by chronically accessible constructs. In either case, by neglecting content dual-process models necessarily only give us part of the story, and thereby limit our ability to explain action.

I argue that identities are a type of cultural content that advances our understanding of cross-context consistency in action. Interestingly, Swidler herself proposed identity as a possible solution to the problem of cultural anchoring, but to my knowledge neither she nor any one else within the culture and action tradition has pursued it (Swidler 2001:87, 2008:616). Many other scholars in cultural sociology have discussed identity since Swidler wrote, and a fair number have referenced her work, but almost invariably they focus on *how* culture is used to construct identity and not *why* people go to the trouble in the first place (e.g., Tabatabai and Linders 2011; Tavory and Goodman 2009). That is, they examine how "cultural elements" such as cultural scripts and repertoires organize identities, but they do not adequately consider the possibility that identities might themselves be cultural elements that can "control, anchor, or organize" culture in turn (c.f., Swidler 2001:206).

In what follows, I present an identity-based model of culture in action to deal with the problem of cultural anchoring. This model draws on identity theory from social psychology as well as insights from the sociology of culture. It adds concrete cultural

content to the discussion (identities), and offers a plausible set of mechanisms for understanding both situationally dependent and cross-context forms of action. Despite these advantages, I do not pretend that this model is a complete description of the connections between culture and action, nor that it fully encapsulates past work – my objective is more modest. Rather than present a comprehensive theory, I aim to integrate the strengths of multiple research traditions to lay out an initial model, without attempting to harmonize all the details of the various paradigms on which I draw.

2.2 Components of the Model

2.2.1 People have identities and try to behave in identity consistent ways

Scholars across disciplines have argued that identities are important predictors of action (Akerlof and Kranton 2000; Hogg, Terry, and White 1995; Stryker 1980). Given its use in so many domains, the term "identity" has taken on many shades of meaning, but most agree that identities are self-understandings, meanings that people incorporate into their conceptions of who they are. Drawing on the work of early thinkers like James, Cooley, and Mead, symbolic interactionists have argued that these self-meanings are learned through interaction with others and often widely agreed upon – that is, they are cultural. Identity theorists assume that people act to maintain identity meanings (Burke and Stets 2009). Thus a mother will try to act in a way consistent with her understanding of how a mother should behave, a Baptist in a way consistent with his understandings of what it means to be a Baptist, and so forth.

Evidence suggests that identity processes operate as a cybernetic control system. People seek consistency between their identities and their actions, and when inconsistency arises, they alter their behavior to try and correct it (Burke and Stets 2009; Robinson 2007; Swann, Pelham, and Krull 1989). At the most basic level this means that when people enter situations they enact behaviors that are consistent with their identities (e.g., professors profess, dentists drill teeth). However, if perceived feedback from the situation does not confirm their identities, they will adjust their behaviors in an attempt to bring situational meanings back in line with the meanings held in their identities. For instance, an engineer whose project fails might seek out another project where she can prove her technical prowess, and a gang member who is seen as "soft" might commit acts of violence to repair his reputation. To relate this back to the problem of cultural anchoring, the fact that people act to verify their identities indicates that they will apply their cultural skills and repertoires in ways that are consistent with their identities, suggesting that self-understandings are a motivational force that organizes other cultural elements, as Swidler hinted. It also is consistent with *habitus*-based theories that view culture as internally organized (in this case into identities) and motivating (Bourdieu 1990; Lizardo and Strand 2010; Vaisey 2009).

2.2.2 Situations and identities interact to activate identities

Similar to dual-process models, most (if not all) theorists assume that identities are activated when situational cues match meanings held by the actor.[2] For instance, a woman's doctor identity is likely to become active when entering the hospital where she works, while her mother identity will probably activate upon seeing her son. Whether or not an identity is seen as appropriate to a context (and hence likely to be cued by it) depends on the wider culture in which it is embedded. For example, while the rise of the Religious Right made religious identity a viable locus of political action in the United States, for the Yoruba of Nigeria religion remained non-politicized (Laitin 1986). Still, cultural definitions of contexts are generally loose enough that they can accommodate many different identities – a person can be black, a woman, and a doctor simultaneously.

As I argued above, detecting a match between situations and cultural content also depends on characteristics of the construct in question, particularly those characteristics that make the construct more cognitively accessible. In identity theory, the probability that an identity will be invoked in a given situation is a function of its

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[2] Symbolic interactionists note that this "match" is a culturally mediated process. Identities are cognitive schema that shape how stimuli from the environment are interpreted, and therefore what types of matches are likely to be detected (Burke and Stets 2009:21-24; Stryker 2008). For clarity in laying out the argument I do not delve into these details, but rather assume that in most circumstances actors share basic meanings regarding which identities are appropriate to different (often institutionalized) settings, and the primary behavioral expectations associated with them. In this way, it makes sense to talk of "situational cues" generically.

salience, which is defined as "the readiness to act out an identity as a consequence of the identity's properties as a cognitive structure or schema" (Stryker and Serpe 1994:17). The fact that salience is a "readiness" to act out an identity suggests some distance with actual behavior – that is, an identity can be called up but ultimately fail to have a noticeable influence on action.[3] Salience, then, is a measure of whether an identity is likely to be *activated*, or in other words, of cognitive accessibility. Identity theorists assume that activation can occur either automatically or through conscious effort (Burke and Stets 2009:61), but the interplay of identities, identity salience, and dual-processes has yet to receive sustained theoretical or empirical attention. Consequently, I do not explicitly incorporate dual-process cognition into the model, although I discuss possible connections in the conclusion.

Identities are arranged in a salience hierarchy, with the most salient identities at the top. As with any accessible construct, identities that are higher in the salience hierarchy are more likely to be activated across contexts. In Stryker and Serpe's (1994) terms, identity salience is "transsituational," and acts as a "'personality' variable carried by persons as they move across situations and respond in particular situations" (18). Serpe and Stryker (1987), for instance, found that students moving to college generally reconstructed social relationships in ways that maintained salient prior identities. This

[3] This is an important distinction, and allows identity salience to be conceptualized and measured separately from behavior. Identity theorists thereby avoid the criticism that they are using the same data points (i.e., observed behavior) as a measure of both their predictor and their outcome.

suggests that those identities remained active even after transitioning to the college environment.

The fact that both situations and salience influence identity activation suggests that people often have multiple identities active at the same time. Multiple active identities means that individuals must try and verify several identities using just one sequence of behaviors. As identity theorists have argued, this process is facilitated to the extent that identities share meanings, and is hampered when identities differ (Burke and Stets 2009:133–135). For example, an identity as a "follower" is likely much easier to verify simultaneously with being an "obedient son" than is an identity as a "leader." In the former case, both identities could be verified through similar types of behavior (e.g., obedience to authority figures), while in the latter case identity-confirming behaviors diverge (e.g., following parental guidance vs. making your own decisions). The need to verify multiple identities means that when verification conflicts arise, people attempt to verify their most salient identities (Burke and Stets 2009:133).

2.2.3 Salient identities form a core self that directs and control the operation of less salient identities

Because identities are arranged in a hierarchy, it follows that the most salient identities are at the top. To my knowledge, the implications of this have not been spelled out before, so I take a moment to do so here. Logically, hyper-salient identities must be frequently (if not chronically) accessible, thereby giving continuity to perception and behavior across contexts. Because they are activated together, these identities are

composed primarily of shared (or at least compatible) meanings, giving individuals a consistent, cross-situational sense of self. I will call this sense of self the core self (c.f., MacKinnon and Heise 2010). That is, the core self is composed of a person's most salient identities. Because people occupy different social positions and have different life experiences, the identities included in the core self can vary from person to person (c.f., Stryker, Serpe, and Hunt 2005; Stryker and Serpe 1982).

The core self has important implications for the activation of other, less salient identities. Situations often leave wide latitude in defining which identities are appropriate, so individuals can select from a number of identities to find those that are most congruent with their core self. In terms of cultural anchoring, highly salient identities are cultural elements that anchor how secondary, more situationally bound identities are deployed.[4] The core self therefore offers a straightforward answer to the question of cross-context action: people have relatively stable self-perceptions that they seek to verify in any situation.

[4] I am indebted to the affect control model of the self outlined by MacKinnon and Heise (2010) for suggesting this line of thinking. Their model uses a "persona" (a composite sense of self) as the key construct that organizes how identities are deployed. I do not use the persona model in this paper because I am uncomfortable with the strong separation between personas and identities that it implies. However, I suspect that the concepts of persona and salient identities could be profitably synthesized to give a more complete description of the core self. For the sake of clarity in my argument (and space), I do not pursue the matter here.

2.2.4 Resources are necessary to verify identities

To this point, our discussion has implicitly focused on determining how identities are *selected* for activation in behavior contexts. Here we interrogate the issue of whether people have the *capacity* to enact and maintain identities. While in many cases identity enactment is unproblematic, at other times it might be more difficult, particularly when people encounter novel situations.

Identity theorists have proposed resources as a way of grappling with this issue, and have demonstrated that actors with greater resources are better able to confirm their identities. By resources, identity theorists mean "anything that supports individuals and the interaction of individuals" (Burke and Stets 2009:99). For instance, researchers have shown that those with higher status – measured as education, occupational prestige, income, and non-minority racial identification – enjoy higher levels of identity verification (Cast, Stets, and Burke 1999; Stets and Cast 2007; Stets and Harrod 2004). Presumably, this is because those with higher status are better able to control situations in ways that ease verification (c.f., Correll and Ridgeway 2003). Identity verification is also greater for those who report higher levels of personal or interpersonal resources (e.g., self-efficacy, self-esteem, role-taking ability, trust, liking; Stets and Cast 2007). Taken together, this work suggests the importance of material and psycho-social resources to identity-based action. Although consistent with identity theory, scholars have paid less attention to the crucial contributions of cultural resources to identity

processes (c.f., Stets and Carter 2011; Tsushima and Burke 1999).[5] Here I am using "cultural" to refer to knowledge and skills that allow a person to navigate social life (Abramson 2012; Swidler 1986). It is here that recourse to cultural sociology can help us.

The foundational idea needed to link cultural resources to identities was expressed by Bourdieu. Bourdieu's insight was that culture – whether ideological, material, or institutional – is actually a form of capital with real-world implications (Bourdieu 1984, 1986). Possessing "cultural capital" allows individuals to signal those in power that they are the right sort of person, and should therefore be rewarded (Lamont and Lareau 1988). These benefits often take the form of access to economically or socially advantaged positions, or in the parlance of identity theories, particular social roles. Thus cultural skills are a means of gaining acceptance by elites who act as gatekeepers for social positions, which are in turn required to adopt certain identities (DiMaggio and Mohr 1985; Lamont 1992; Rivera 2012). It is worth noting that even after passing gatekeepers, identity access is uncertain anytime people act in the presence of others because each new interaction situation provides others the opportunity to accept or reject the identity performances being offered. Cultural skills are therefore not only

[5] Identity theorists have found that knowledge-based resources are tied to the type of identity one has (Tsushima and Burke 1999), and that knowledge and skill-based resources (task ability) interact with how other identities are used (Stets and Carter 2011). This paper adds a model of how cultural competencies allow a person to *access* and *enact* identities. The model is consistent with identity theory's umbrella definition of resources, but draws on work in cultural sociology to provide a more detailed examination of the processes involved, and their implications for action.

required to gain *initial* access to identities, but also to *continue* to access them in subsequent interactions.

Not only is cultural capital necessary to *access* identities, but it is required to successfully *enact* them. The idea here is that people cannot act in identity-consistent ways if they do not have the requisite knowledge or skills to do so. Bourdieu uses the example of art to illustrate this point. Any person with sufficient economic resources can purchase a painting, but money cannot buy "the means of 'consuming' a painting," for this requires certain cultural knowledge and taste (Bourdieu 1986:50). A person aspiring to the lofty positions of collector or art critic needs to have internalized appropriate high culture reactions to different displays of style and form, otherwise he will be unable to transcend "the 'primary stratum of the meaning we can grasp on the basis of our ordinary experience' to reach the 'stratum of secondary meanings', i.e., the 'level of the meaning of what is signified'" (Bourdieu 1984:2).

Typically identities and skills go hand-in-hand – both because identities and skills are often learned together and because people tend to gravitate towards roles for which they are already equipped (Bourdieu 1990; Swidler 2008) – but this is not always true. Consider the successful blue-collar businessman who finds himself thrust into the ranks of the wealthy, only to discover that he does not know how to act at the country club. When there is a mismatch between identities and skills, skill sets can act back on motivations to occupy identities, reducing the desire to enact roles for which people lack

competency (Bourdieu 1990:53–55; Swidler 1986:275). Identity enactments that require new skills may even seem impossible (Bourdieu 1990:54–55). Note, however, that the converse is not typically true – that is, that possessing cultural competencies motivates action that exploits those skills. Just as hammers can be used for many projects, competencies can be applied in the service of many goals.[6] In simple terms, cultural skills are necessary but not generally sufficient for action (Vaisey 2008).

2.3 An Identity-Based Model of Culture in Action

Taken together, insights from both identity theory and work on cultural sociology lay the groundwork for an identity-based model of culture in action. This section outlines how the theoretical components presented above fit together to shape action in concrete contexts. The model is summarized in Figure 1. I assume that people act to maintain their most salient identities, or in other words, their core selves. These influence the activation of other, more situationally specific identities. Disconfirmation of identities generates a desire to restore self-relevant perceptions, with preference given to those that are more salient. This quest for self-confirmation guides people in how they deploy their cultural knowledge and skills. Consistent with Swidler's claim, though, I

[6] The only exception I can think of is a "novelty effect." Here acquiring knowledge or skills can generate enthusiasm for the new possibilities that this affords, leading people to pursue action that they otherwise would not. Typically, this effect is short-lived as skills become familiar and lose their intrinsic interest.

also assume that people try to make use of the skills and abilities they have, and will therefore resist change that requires them to learn new competencies (Swidler 1986).

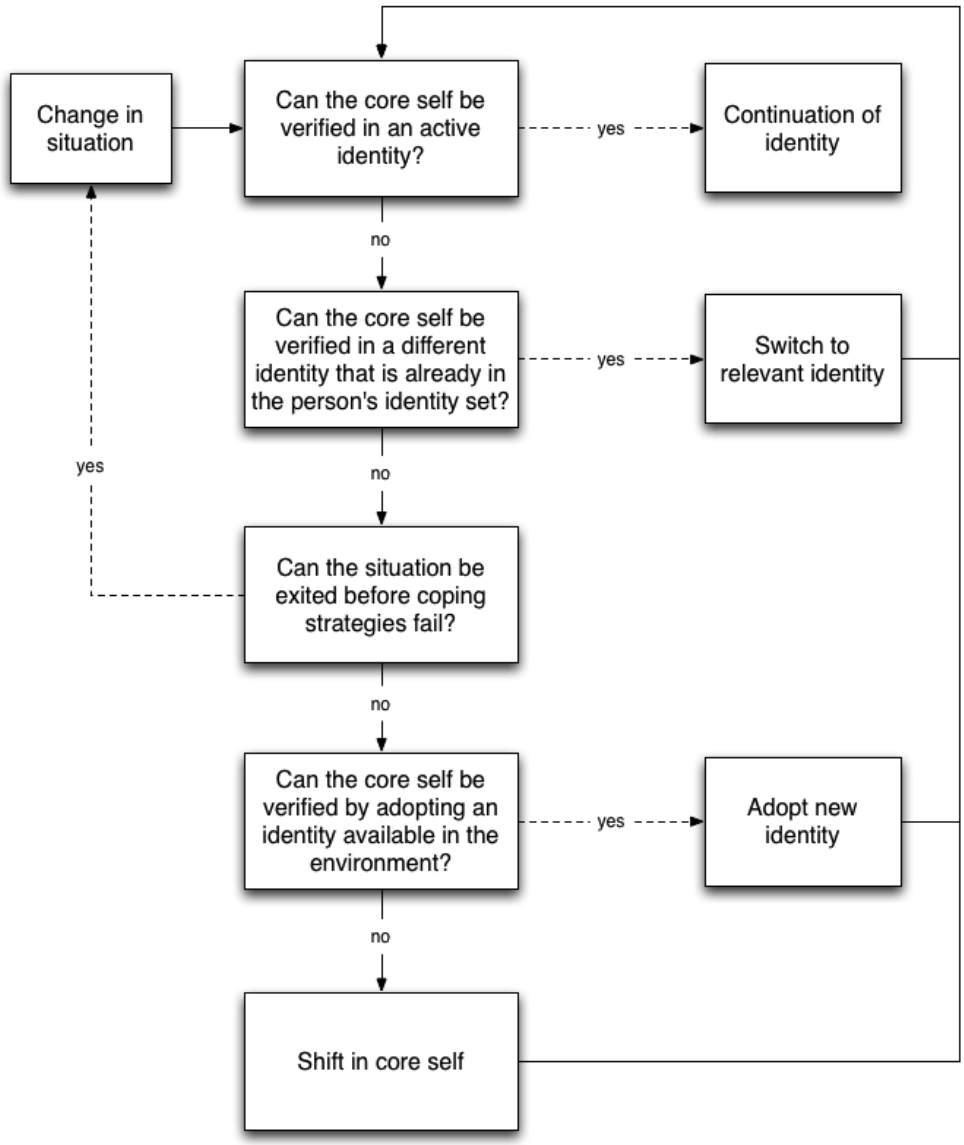

Figure 1: An Identity-based Model of Culture in Action

Note: Dotted lines represent transitions that require cultural knowledge, skills, competencies, or other resources to either a) perform identity-relevant tasks, and/or b) have identity performances accepted by others (e.g., gatekeepers), and/or c) alter the situation so that the identity can be verified. If

resources (cultural skills or other types) are not sufficient for identity enactment in a given situation, then the process follows the "no" path.

In what follows I use the terms "situation" and "context" in a very loose sense, applying them to immediate behavioral contexts, which tend to be of relatively short duration (e.g., meeting a friend in the hall), institutional contexts that are occupied for somewhat longer timeframes (e.g., home, work), as well as longer periods that accompany life transitions (e.g., retiring). The moving parts of the model are general enough that they can be applied at each level of analysis.

The model picks up when a person changes situations, as shown in the top left corner of Figure 1.[7] I assume that a person can enter a situation with an identity already activated, perhaps carried over from a prior context. Upon entering the new situation, this identity is evaluated to see if it can still be used to verify the core self, where the major consideration is whether the identity is still (or can made to be) appropriate to the new context. If so, the person continues to occupy that identity, *provided that* he has the resources to do so, which we cannot take for granted. For instance, a person used to the routines of high school may find it difficult to feel like a star student after entering college. The identity to be confirmed is nominally the same, but the change in context brings with it a change in the skills (and perhaps other resources) needed for

[7] The motivations for this initial change in situations lie outside the scope of the model. It is probable that the reasons will vary depending on the type of situation in question. Transitions into social situations might be driven by a desire for enjoyment, for instance, while the move to retirement occurs as an inevitable aspect of work life.

verification. Such changes are not restricted to major life transitions; they can occur in the course of daily life as well. Imagine a computer programmer who is assigned a project that exceeds his skills, or a woman who feels good about her parenting until she takes her children to a play group and finds that other mothers value parenting strategies that she does not employ. These examples suggest that small changes in situations can alter the skills needed to enact or access identities.

Conversely, resources (e.g., status, conversational skills) sometimes allow a person to act back on situations or control interactions, and therefore can be used to facilitate identity verification. At root, this is because reality is socially constructed, and social or skill-based advantages translate into increased power to define reality. One way this can occur is by altering the definition of what skills are needed for verification. To return to the previous example, a high-status woman taking her child to a play group is more likely to have her parenting techniques seen as appropriate than is a low-status woman. In some cases, extreme levels of resources can also be used to redefine even what identities are appropriate to enact. Barack Obama, for instance, likely gets to play the part of president almost anywhere he goes. The important caveat is that the power of resources over situations is rarely absolute, and cannot compensate for a lack of essential cultural skills. A person with little academic ability is unlikely to live up to even her own (culturally-shaped) standard of what it means to be a student.

If the person does not bring a pre-activated identity into the new context, or if it is not (or cannot be made to be) appropriate, the person will try to transition to a different identity. This might occur immediately as the person recognizes the demands of the new situation (e.g., when changing institutional contexts), or might occur after the person fails to have her prior identity verified (Smith-Lovin and Robinson 2006). The success of this attempt will depend on two things. First, switching identities is conditional on whether the identity is cognitively available to a person – that is, she must have prior experience with the identity. Second, even if a new identity is available a person must still have the resources and cultural skills to access and enact it in the immediate context. As noted above, neither process can be taken for granted, particularly when the person is encountering a novel situation. Access can be facilitated by material, social, and cultural resources that allow the person to control the situation, but even then it depends on the basic ability to enact an identity, which requires cultural knowledge and skills. To reiterate, "cultured capacities" (Swidler 2001:71) are a necessary resource for competently enacting any identity.

Activating a situationally appropriate identity generally proceeds with little difficulty, but problems can arise when this identity differs substantially from other, salient identities that might also have been activated, especially those chronically accessible identities that are part of the core self. As noted above, when conflicts arise people prefer to enact their most salient identities, but if these are not appropriate to the

situation then non-verification becomes likely. For example, a teenager leaving for school may have little trouble switching from the acting the part of a dependent daughter to that of the popular socialite, as both are regularly reinforced and therefore cognitively available. However, her core self will remain active in both settings, and any identities closely associated with it will persist across contexts. At both home and school, for instance, the teenager will likely be guided by her sense of gender identity. She cannot turn this off, which might lead to non-verification if she is required to participate in activities that she does not perceive as sufficiently feminine (e.g., playing football in P.E. class).

If the core self is unable to be confirmed by changing to a different identity – either because the person is unable or unwilling to change – then the person will try to exit the situation. This, too, can require material resources or cultural skills, as when a person starts a job, discovers he does not like it, and wants to change employment but lacks either the funds to relocate or the needed qualifications to obtain a better position. If the situation cannot be exited, then the core self will exist in a state of tension with the environment, and the person will experience emotional pressure to resolve the discrepancy.[8]

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[8] The terms "tension" and "emotional pressure" are intentionally ambiguous. This is because evidence is mixed regarding the particular emotions (or even emotional valences) that lead one to seek identity-verification. Identity theorists predict that any disconfirmation will lead to negative affect, but affect control theorists predict that only negative non-verification has this effect, and

Identity theory suggests that identities are always changing in response to the environment, though typically at a slow rate, and would predict that the longer a non-verifying situation persists, the more the self would change to match contextual meanings (Burke 2006). I do not know whether this model of perpetual change is technically accurate, but for practical purposes I believe it is useful to instead think of the core self as stable in the face of disconfirmation. People do not immediately begin to change in response to disconfirming situations; rather, they initially apply coping strategies to resist the perceived threat to the self (c.f., Burke 1996). These might include directing attention to verifying feedback, or ignoring or counteracting non-verifying feedback (e.g., "I really am a good student, no matter what grade I got"). Staving off non-verification depends on having both access to and the ability to apply these strategies, which again highlights the importance of cultural resources for identity processes. It is only when these strategies fail (or require too much effort to continue) that the environment begins to shift the meanings held in the identity, and through it the meanings in the core self. The key consideration therefore becomes whether a situation can be exited before this occurs. If so, the model cycles back to the beginning and the verification process begins anew (see Figure 1).

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positive non-verification leads to positive emotion. However, both theories agree that people try to verify their identities regardless of the direction of disconfirmation.

A person who cannot exit a disconfirming situation will next try to adapt by adopting a new, situationally appropriate identity that can be used to confirm the self-sentiment. This response comes late in the process because, as Swidler noted, people tailor their action to the skills they already possess, and acquiring a new identity also means learning the cultural competences needed to enact it, and potentially acquiring additional material resources to support it (Swidler 1986:275, 2001:84–86). For example, a couple that has their first child might find it difficult to fully maintain their previous spousal and personal identities, and so they compensate by adopting parental identities. Again, this step depends both on the salience of prior identities, and on having (or being able to learn) the skills needed for parenting. It also requires material resources; children, after all, are expensive. Adopting a new identity is typically time-consuming, so persons might experience repeated non-verification until the process is complete. People rarely feel that mastering the art of parenting is a short-term affair.

As noted by identity theorists, identities do change, often unintentionally (Burke and Stets 2009, chapter 9; Burke 2006). In the current framework, this occurs only if the previous steps cannot verify the core self. That is, a person generally will try to operate using one of the identities she has and, failing that, will try to exit the disconfirming context. If neither of these is an option, she will try to verify her core self by adopting a new, situationally relevant identity, even if this takes time. It is only when this, too, proves prohibitively difficult that her core self begins to change. This will occur as she

adopts and verifies contextually appropriate identities that are at odds with her core self. As posited by identity theory, the direction of the change is towards situational meanings, which narrows the distance between the core self and the situational feedback and therefore reduces non-verification (Burke 2006).

2.4 Evidence for the Identity-Based Model of Culture in Action

Evidence for the model presented above can be culled from many places. As the basic operations of identities are already well-established in the social psychological literature (e.g., Burke and Stets 2009; Robinson and Smith-Lovin 2006), I will focus on two studies that demonstrate the crucial role played by cultural skills in accessing and enacting identities, though I will also note where they lend support to other aspects of the model.

The first example comes from Lareau's *Unequal Childhoods,* a rich study of American families that highlights the connections between class and the stratification of cultural capital (Lareau 2003). Drawing on interviews and observational data, Lareau argued that both the middle class and working/lower class adults in her study wanted to be good parents – that is, they wanted to enact the parent identity – but that they differed in their ability to translate their intentions into beneficial outcomes for their children because their cultural skills were differentially valued by dominant institutions. With regard to education, for instance, lower-class parents tended to trust the judgment of school personnel and generally complied with school recommendations. Middle-class

parents more often saw the system as malleable and worked with school teachers and administrators to secure optimal outcomes for their children.[9] As Lareau pointed out, only the middle-class approach was well adapted for extracting results from the educational system. Furthermore, school personnel often viewed parental involvement positively, and responded accordingly. The present model suggests that middle-class adults would therefore be able to have their preferred parental identities verified in interactions with school personnel, but this would be more challenging for lower-class parents – that is, middle-class adults have greater access to the parental identity. This is exactly what Lareau found. She reported that many lower class parents had difficulty interacting with schools, and felt ineffectual in their efforts to procure advantages for their children. Because many parents were unwilling or unable to exit the parent identity, this lack of cultural skills led to repeated non-verification.

Wacquant's ethnography of South-side Chicago provides a second example (Wacquant 2004). In an effort to build social ties needed for his study of life in the ghetto, Wacquant enrolled in a local boxing gym, but quickly learned that adopting the identity of a boxer required physical skills and deep-seated reactions that could only be acquired through intense training. Yet these physical competencies could only provide him with the tools to enact the identity in a general, technical way. His *access* to the boxer identity

[9] See the examples of Ms. Marshall (middle class) and Ms. Driver (lower class) to illustrate these points.

also required him to gain acceptance in the eyes of the other boxers in the particular gym where he trained, which required additional cultural skills. He had to master the "shoptalk" which revolved around topics such as "the maintenance of the body, … 'making weight' … [and] technical subtleties of the game" (38), as well as talk that reflected life in the ghetto. Only in the combination of the physical and the social could he find "the cultural capital proper to the group" (39) and come to fully occupy the pugilist identity. Developing the necessary cultural competencies took time, and during the process Wacquant faced repeated disconfirmation – in his words, his early "technical ineptitude was equalled only by [his] feeling of frustration and sometimes discouragement" (x). For several months the outcome was uncertain; in fact, other boxers regularly wagered that he would quit.

According to his reports, Wacquant eventually earned his place in the gym, but his reflections on the process make it painfully evident (in his case, literally) that enacting and accessing identities are fraught affairs that can fail if the needed skills are not acquired. As emphasized by the present model, the exact skills needed for identity enactment vary by context – Wacquant needed knowledge of the ghetto, but this requirement would certainly be different in a gym set in a different location, and

frequented by a different clientele.[10] Note, too, that Wacquant could have exited the situation at any time – indeed, the identity incumbents expected him to. Doing so would have removed the necessity of learning new skills, and protected his core self from further non-verification. To reiterate, Wacquant's ability to overcome these challenges and remain at the gym depended on his learning a particular set of identity-specific skills, which enabled him to both perform the behaviors expected of a boxer and gain legitimacy in the eyes of the identity gatekeepers.

2.5 Conclusion

Over a decade ago, Swidler posed a crucial problem for scholars interested in linking culture to action: which element of culture anchor (or cause) others? A number of scholars have offered useful responses, but their work does not adequately address how action can crosscut contexts, in part because they do not detail which cultural contents matter. The model outlined above uses identity to answer these questions. In short, it suggests that people are motivated to act in self-consistent ways, and that the most important self-perceptions are those salient identities that have been incorporated into the core self. This core self manages which other identities are activated in different situations, favoring identities that are both consistent with its own meanings and situationally-appropriate. Identities, in turn, guide how cultural competencies and other

[10] In fact, a quick search on Google brought up a boxing facility in Massachusetts called the "Gentlemen's Gym Boxing Club," and the pictures posted on the website make it obvious that it is very different from the gym described by Wacquant.

resources are deployed. At the same time, cultural skills and knowledge can limit the identities that can be verified and the contexts in which verification can occur. Fundamentally, this is because relevant cultural competencies are needed to perform identity-consistent actions at all (that is, to enact identities). When action occurs in the presence of others, skills (and other resources) also allow a person to have their identity performances accepted, thereby providing access to identities. With only minimal violence to nuance, we might summarize the answer to the problem of cultural anchoring presented here as follows: core selves anchor less salient identities which, in turn, anchor cultural competencies, provided that a person possesses the requisite competencies for enacting an identity in a given context.

This model is not a complete solution to the problem of cultural anchoring, but it does advance the discussion in several ways. First, it retains important insights offered by prior theories. From toolkit theory it incorporates skills and other cultural resources, and from dual-process theories (e.g., Vaisey 2009) the idea that culture can be motivating, but adds to these specific cultural contents – identities – that are motivating in known, predictable ways. Second, the model accounts for the activation of cultural content in a way that retains a sensitivity to context, but provides greater insight into the mechanisms that underlie the activation process (e.g., identity salience). Third and perhaps most importantly, it explains action that occurs both within and across situations. Actions sometimes crosscuts contexts because the identities that motivate

them are active in many situations – likewise, actions can be bound to certain contexts when shaped by situation-specific identities. In all cases, action depends on having appropriate cultural knowledge, skills, and other resources. Consistent with Abramson (2012), this implies that the power of identities to generate cross-context consistency can be limited in interaction settings in which actors come from different class backgrounds. However, identities are more likely to promote consistency across situations in which interactants are of the same class, where cultural resources are presumably held (relatively) constant. Consistency is also more likely across situations that do not require interaction.

Of course, patching holes in past arguments is insufficient to demonstrate utility. Does the theory-building demonstrated here have practical import, or is it simply an exercise in seeking logical coherency for the sake of coherency (c.f., Wrong 1961)? I can think of at least two ways that the current model can make significant real-world contributions to empirical research.

First, the model has implications for stratification researchers. Adopting identities in a given situation requires having the cultural competencies to both perform the behaviors associated with the identities, and to have the identity performances accepted by others. The two need not be overlapping sets, but *both* are required for identity verification. This means that those aspiring to privileged positions must learn the culture of their incumbents. Failing this, they will either experience emotional

arousal and an eventual shift in their core selves, and/or will exit the disconfirming situations, effectively leaving the privileged positions to those with the needed cultural capacities. As Bourdieu (1986) noted, acquiring these competencies can require prolonged exposure, and opportunities for this type of learning are unequally distributed across the social landscape (48-50; c.f., Khan 2011).

On a more positive note, personalized meanings located in the core self may provide individuals with tools to survive within and even resist dominant structures. Institutional diversity in modern society means that people have multiple forums for seeking self-verification. Because the core self is slow to change, individuals can resist disconfirming situations provided that they have regular access to social support or coping strategies. Self-verification becomes easier as freedom to choose situations and interaction partners increases. Interaction contexts are particularly important because they allow meanings to be transmitted from person to person, which can lead to changes in dominant meaning structures. Smith-Lovin (2007), for instance, argued that local changes in identity meanings exert pressure to change general identity meanings, which in turn allows them to distill into additional institutional domains (c.f., Foy et al. forthcoming). In this way, situated attempts at self-verification can alter established meaning structures.

There are several aspects of the model that could benefit from additional empirical work. First, the model would benefit from verifying the hypothesized

sequence of events. For instance, when do people enter situations with active identities, and when do they deactivate identities before switching contexts? We might imagine that switching identities take time, perhaps proportional to the level of investment in the prior identity. We can think here of the parent who, after a hard day of work, needs a few minutes before engaging with the children. Attention should also be given to whether people can "skip" steps in the process, and how this occurs. Those purposely aspiring to identities, for instance, often seem to bypass the first several phases of the process – that is, they directly enter disconfirming situations to leverage themselves into a desired identity (e.g., Wacquant, c.f. Vaisey and Lizardo 2010). Empirical work is also needed to bolster the claim that the core self is chronically accessible. Relatedly, scholars might ask how other mechanisms of identity activation fit into the model. For instance, individuals sometimes disingenuously invoke identities for instrumental gain – what does this imply about the core self, and how the concept might be expanded? Finally, the current model (intentionally) does not address the issue of emotional reactions to the identity verification process. This is both because it is not essential to the current argument, and because identity researchers do not yet agree on how the two relate (Smith-Lovin and Robinson 2006). Adding an affective component would add additional depth and richness, particularly if it could be shown that distinct emotions alter the verification process in unique ways. For example, we might expect that a person who

feels shame will be more apt to immediately exit a disconfirming situation than a person who merely feels embarrassed.

The proposed model also raises a number of intriguing questions. First and foremost, the notion of a core self bears a strong resemblance to Bordieu's *habitus* (c.f., Vaisey 2009), but the exact contours of this relationship are unclear, suggesting that further attention could be profitably directed to fleshing out the connections between the two. Of particular interest is whether the core self, like the *habitus*, operates largely through fast, automatic cognitive processes. The assumption of chronically accessibility suggests that it does, but to date the social psychological theories on which the model draws have largely been silent on the relationship between identities (and by extension the self generally) and dual-process models of cognition.[11] Testing these links will both enhance these theories individually and facilitate connections between the present model and current work on culture in action. I also argued that identity activation depends on the salience of at least two identities (the prior and the one needed for the new situation), as well as possession of cultural tools appropriate to the context, but the question of *how* these constructs jointly affect identity enactment – that is, in what combinations and in what circumstances – requires additional attention. Finally, it is worth considering how long people can resist situational disconfirmation in cases where

[11] Several recent studies suggest that people hold implicit identities that can guide their behavior (e.g., Srivastava and Banaji 2011). I am currently working on a project that explores whether identities primarily operate using automatic or deliberative processes.

exiting a situation is unfeasible or impossible. Does the process differ when the non-verification is the result of intentional entrance into the situation in pursuit of an aspirational identity, compared to when the context is unwanted but externally imposed? Are there strategies that allow a person to resist changes to the self, perhaps indefinitely?

The identity model of culture in action should be seen as a next step in addressing the perpetually vexing problem of the role of culture in action, and as an illustration of the benefits of combining multiple research traditions in pursuit of more satisfying theoretical answers.

3. The (Re)genesis of Values: Examining the Importance of Values for Action

Scholars of culture and action have shown an increasing interest in cognitive processes. Evidence indicates that behavior is largely driven by fast, automatic, non-conscious cognitive processes, with the slow, deliberate, conscious mind only occasionally exerting (or pretending to exert) control (Vaisey and Lizardo 2010; Vaisey 2009). Though there are different versions, frameworks that emphasize these two types of cognition are called dual-process models (Evans 2008). These models have introduced a greater cognitive realism in sociological theory and have helped overcome many of the tensions between motivations and situations that characterized past work (Gross 2009; Joas 1996; Vaisey 2009). As important as these gains have been, dual-process approaches have focused almost exclusively on *process* at the expense of *content*. This has created a situation where we have a good idea about *how* motivating culture might influence behavior, but little sense of *which* forms of culture actually matter (Beyerlein and Vaisey 2013; Miles 2014).

I argue that values are one form of motivating culture with important implications for action, but that they have received little attention in recent decades. Although definitions vary, most scholars agree that values are "abstract ideals (e.g., freedom, helpfulness) that function as important guiding principles" in shaping behavior (Maio et al. 2003:284; c.f., Hitlin and Piliavin 2004; Schwartz et al. 2012).

Despite repeated calls to revive the study of values, (Hitlin and Piliavin 2004; Spates 1983; Wuthnow 2008), many scholars seem hesitant, perhaps because values remain linked in the sociological imagination to Parsons' structural functionalism.

Fortunately, theoretical and empirical advances since the mid 20th century allow us to separate values from their functionalist moorings and construct a more plausible theoretical framework. Recent work suggests that values are tied to the self and – consistent with dual-process models – operate largely via automatic cognition. Extensive evidence also indicates that societies around the world recognize the same general value categories (even if they disagree over priority) and the same compatibilities and conflicts among them (e.g., Schwartz 2012). Values therefore represent a universal class of cultural content that is applied to behavior using general cognitive processes. This leads to the primary claims of this paper: that values predict many forms of action, that they matter across contexts, and that sociologists would benefit from reintroducing values into their models of culture and action.

I present the argument in two parts. First, I describe the problem of cultural content, suggest that values provide a solution, and outline some of the immediate criticisms such a claim is likely to evoke given their association with structural functionalism. I argue that recent theoretical and empirical work addresses the shortcomings of the functionalist approach to values, thereby making values *permissible* in the study of action, and also provides good reasons to believe that values are

motivating and applicable across situations, thereby making them *important* for action. Second, I illustrate my argument with two sets of empirical analyses. The first uses data from the second wave of the European Social Survey (ESS) to demonstrate that values are tied to a wide range of self-reported behaviors cross-nationally. The second uses data from an online survey to strengthen the case for causality and test the proposed mechanisms, showing that values predict real-time decision behavior through automatic cognitive processes. I conclude with a discussion of the implications of these results for sociological theories of action.

3.1 Dual-Process Models and the Problem of Content

Dual-process models are defined by two key ideas. First, cognition is of two sorts: one fast, effortless, and relatively automatic, the other slow and deliberate. Second, most human action relies on automatic processes, with deliberative thought only activating to manage difficult situations or generate post hoc accounts (depending on the model). The implication is that individuals carry around beliefs, predispositions, perceptual schemas, and other cognitively stored elements that influence how they act without requiring much (if any) conscious effort on their part.

Dual-process models represent an elegant solution to the problems inherent in action theories that overemphasize either situational structures (e.g., DiMaggio 1997; Swidler 2001:160-180) or individual volition (e.g., Parsons and Shils 1951). In contrast to perspectives that highlight individual-level cultural disorganization and the need for

external "scaffolding" to produce consistent action (Lizardo and Strand 2010), they provide us with a rationale for examining motives and other individual-level constructs, but one that respects the role of situations in determining when and how these constructs are applied.

However, current dual-process models do little to tell us *which* constructs matter (Beyerlein and Vaisey 2013:386-387). Gross (2009), for instance, argues that action can be explained by identifying the mechanisms that produce it, but these mechanisms are generic: actors with given habits "of cognition and action" automatically apply them to navigate daily life, and engage their creative faculties only when situations prove problematic (e.g., novel situations, see Davidov 2007). Similarly, Vaisey (2009) uses dual-processes to provide a cognitively plausible account of motivation, but his goal is to establish the importance of automatic processes, not to advocate for any particular form of cultural content (see p. 1706). Other researchers argue that content matters, but typically restrict their claims to specific domains. Ignatow (2009), for example, discusses how moral culture can help explain social bonding in groups (c.f., Beyerlein and Vaisey 2013), while Srivistava and Banaji (2011) suggest that implicit self-concepts are an important factor in understanding why people form network ties. Such analyses are useful for fleshing out middle-range theories of group processes and network formation, but it is not clear what they contribute to our understanding of action generally. We are

left with the question: are there specific cultural constructs that shape action *across* domains?

3.2 Values Past and Present

I argue that the answer to this question is "yes," and that values are one such construct. Although there have been sporadic forays into values research since Parsons (e.g., Kohn and Schooler 1969), recent sociological work on values is limited, and has largely focused on their geographic and social distribution and cultural change over time (e.g., Baker 2005; Hunter 1991; Inglehart and Baker 2000; Longest, Hitlin, and Vaisey 2013). Far less attention has been given to their role in action, although there are a few exceptions (e.g., Baker 2005:224-231). In some cases the value-action link is inferred but not tested (e.g., Keister 2008), value-like constructs are used but called by different names (e.g., "cultural repertoires," Van Hook and Bean 2009), or values are linked to attitudes which are assumed to predict behavior (e.g., Davidov, Meuleman, et al. 2008). Scholars in psychology and political science have used values more openly, examining their influence on a variety of behaviors (Bardi and Schwartz 2003; Barnes et al. 1979; Inglehart and Welzel 2005), yet many sociologists appear reticent to follow suit. Some acknowledge that values can influence behaviors but do not use them directly (e.g., Craig and Mullan 2011), while others– including many prominent scholars – remain openly skeptical of values and other internal motivations, highlighting structures and situations as the predominate forces that organize action (e.g., Chaves 2010; DiMaggio

1997; Harding 2007). Both passive acceptance and suspicion have led to the same practical result – we have few sociological treatments of values and action.

Neither wariness nor benign neglect is surprising given that many associate values with Talcott Parsons' structural functionalism. Any attempt to revive the study of values and action must therefore adequately address this legacy (Hitlin and Vaisey 2013; Spates 1983). In brief, Parsons argued that societies instill a limited number of core values in their members, and that these provide common orientations around which people organize their thoughts and actions. These values guide individuals in the conscious, rational selection of goals, provide a rubric by which strategies for obtaining those goals can be evaluated, and shape normative expectations in interaction situations (Parsons and Shils 1951:163-166, 170-172; Parsons 1935, 1961:36-44). Other forces also influence behavior (e.g., idiosyncratic values, Parsons and Shils 1951:180), but common values are essential because they create internal motivations and external norms that help maintain social order (e.g., Parsons 1961:35).

As critics have noted, there are a variety of problems with Parsonian action theory. Parsons' work emphasizes processes that keep society running smoothly, and posits that social stability is largely the result of people internalizing and rationally acting on the same set of common values – that is, society is stable because, by and large, people are motivated to keep it that way. But empirical data suggest a more nuanced picture, with *competing* interests leading to conflicts that disrupt social harmony

(Oberschall 1978; Roy 1984). Similarly, the deliberative, rational actor Parsons' describes seems strikingly at odds with the individuals scholars interview, who often seem unable to give coherent reasons for their actions (Jerolmack and Khan 2014; Swidler 2001). Such shortcomings have led many scholars to reject "[t]he view that man is invariably pushed by internalized norms" (Wrong 1961:191), and that people rely on "meaningful cognitions" such as "values and norms" to guide their behavior (Collins 1981:990-991). Swidler (1986) famously summarized this critique when she claimed that "[w]hat people want … is of little help in explaining their action," and dismissed values as "the unmoved mover in the theory of action" (274).

Parsonian action theory also suffers from a lack of credible empirical evidence to support its claims. Functionalists typically assumed rather than demonstrated the efficacy of values, or else inferred values from observed behaviors, essentially using the same data points as both independent and dependent variables (c.f., Blake and Davis 1964; Parsons and Shils 1951:78; Spates 1983). This problem could have been resolved by measuring values directly, but scholars lacked validated instruments, and some doubted whether such measurement was even possible (Blake and Davis 1964).

3.3 Values and Action: Theory and Evidence

Fortunately, theoretical advances during the past two and a half decades have provided the tools for building a values framework that overcomes the problems associated with functionalism, and have given us reasons to believe that values have

wide-ranging effects on behavior. Two key ideas undergird this new framework. The first is that values are tied to the social self, and the second is that values operate at two levels of cognition.

Both of these ideas can be found in the work of Hans Joas. Joas (2000) argues that everyday interactions and extra-ordinary moments (e.g., the death of a loved one, religious rituals) produce emotions which must be interpreted through discussion, observation, and by applying available cultural understandings. This interpretive work allows individuals to draw conclusions about what is important in life – that is, about what they value – which in turn shapes how they understand themselves. In this way, value formation is inextricably tied to self-formation. Once formed, value activation and application to behavior is "pre-reflective," but can become conscious when routine forms of action fail and people must creatively decide how to meet the joint demands of values and situations (Joas 1996, 2000:173; c.f., Bardi and Schwartz 2003:1209; Bourdieu 1990:53–56). This suggests two levels of cognition just as in current dual-process models, and provides a link between values and action that is more cognitively plausible than Parson's rational, goal-oriented scheme.

Hitlin (2003, 2008) also ties values to the self, but does so within the context of concrete social psychological theories of identity. In his view, values help shape a "personal identity," or a sense of a unified self that people experience despite the fact that they often think and act in different ways. People are motivated to feel authentic,

and this can occur if they see their different behaviors as manifestations of a common set of values (Hitlin 2003, 2008:151). Although a person can generate this perceived value-consistency through post-hoc rationalization (e.g., Hitlin 2008:143-145), it can also arise if values become deeply internalized and motivate action across many contexts, much as Joas suggested. Indeed, considerable evidence indicates that people are motivated to act in self-consistent ways (for reviews, see Burke and Stets 2009; Robinson 2007). This suggests another reason for incorporating values into general theories of action – through ties to personal identities, values are likely to shape actions that occur in a variety of contexts.

Several studies provide empirical support for linking values to the self. For instance, Hitlin (2003) found that other-focused values predicted adoption of a volunteer identity, and Verplanken and Holland (2002) showed that environmental values influenced both information seeking and consumer decisions if they had become self-definitional (i.e., respondents reported that the values "describe me very well"). Furthermore, increasing self-focus for those with self-definitional altruistic values (without priming values directly) led to more frequent donations to a human rights organization, suggesting an implicit tie between values and the self (Verplanken and Holland 2002: study 5). In contrast, evidence linking values to dual-process models is currently lacking. Self-related information is often processed quickly, suggesting automaticity (Devos, Huynth, and Banaji 2012; Markus 1977), which implies that value

activation likewise will be automatic, but this is an inferential leap in need of testing.

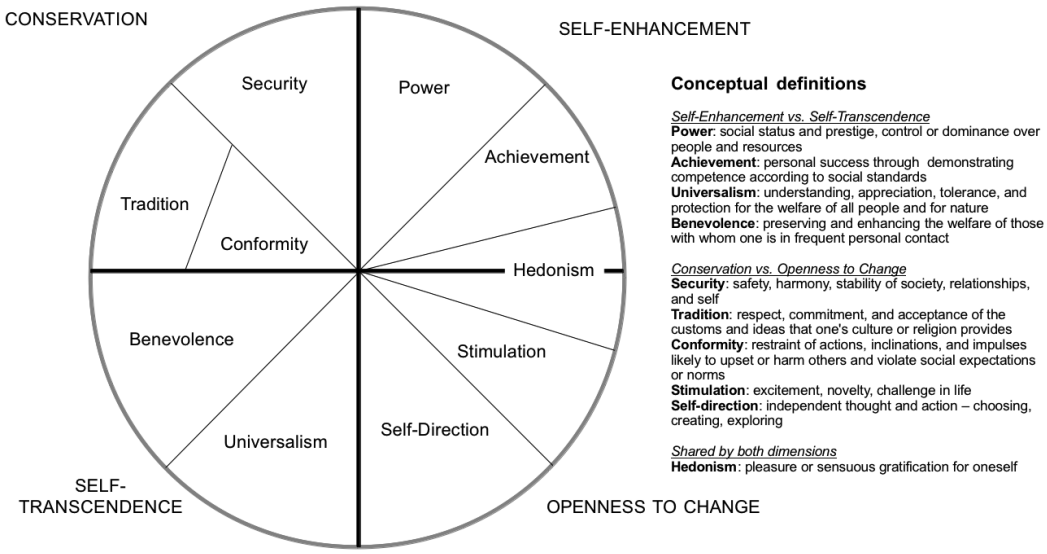

Figure 2: Relations among Value Types According to Schwartz's Value Theory, with Definitions of Value Categories

Note: Figure adapted from Schwartz 2012.

Whereas Joas and Hitlin consider the micro-level operation of values in the abstract, Schwartz and his colleagues offer a theoretical structure and tools for measurement.[1] Schwartz argues that values are conceptually arranged in a circular pattern, as shown in Figure 2 (Schwartz 1992; Schwartz et al. 2012). Values that are close

[1] Ronald Inglehart has also developed a values paradigm, but I restrict my attention to Schwartz's typology for theoretical, empirical, and practical reasons: theoretically, Schwartz's values cover more conceptual space, and arguably subsume Inglehart's scheme (see footnote 2, and Datler, Jagodzinski, and Schmidt 2013:908); empirically, Schwartz values have been widely validated, and one study suggests they are better than Inglehart's values at predicting moral and social attitudes (Beckers, Siegers, and Kuntz 2012); practically, Schwartz's values can be measured directly, while Inglehart's values are measured using reports of feelings, emotions, and behavior, which confounds values with other constructs (Datler et al. 2013).

to one another are motivationally compatible, but decrease in compatibility as distance around the circle increases. Although values can be divided into conceptual categories in any way that makes sense given this structure, they are typically grouped into ten types, which Schwartz calls universalism, benevolence, conformity, tradition, security, power, achievement, hedonism, stimulation, and self-direction (see definitions in Figure 2). These ten can be further arrayed along two underlying dimensions that capture their major compatibilities and conflicts. Power and achievement are positively correlated with one another but negatively associated with benevolence and universalism; together, they form a continuum of self-enhancement vs. self-transcendence motives, which serve, respectively, to legitimate and encourage the pursuit of one's own interests, or else the welfare of others. Similarly, security, conformity, and tradition are positively correlated with one another, and negatively with stimulation and self-direction, and all five can be seen as expressing underlying tendencies towards conservation – maintaining the stability and predictability of current arrangements – or openness to change – encouraging pursuit of new, possibly non-conformist ideas and interests (Schwartz 1992). Hedonism shares characteristics of both self-enhancement and openness to change, and so is split between the two, as shown in Figure 2.

The structure of values is notable because it overcomes functionalism's problem of consensus. In Schwartz's framework, social conflict need not occur *despite* common

values, but *because* people emphasize different, incompatible values.[2] Value structure also suggests which types of values are motivationally compatible and likely to be pursued simultaneously. For example, the opposed positions of stimulation and security indicate that people seeking adventure usually must be willing to sacrifice a measure of personal security; similarly, those wishing to care for others often must forgo activities that might enhance their own social standing (self-transcendence vs. self-enhancement).

In addition to theorizing the structure of values, Schwartz developed several instruments for measuring values (Schwartz 1992; Schwartz et al. 2001). This enables researchers to avoid the tautological reasoning that plagued early functionalist studies – values and actions can now be measured separately, and claims about where values come from and what they do can be empirically tested.

Perhaps more importantly, these measures allowed Schwartz and his colleagues to demonstrate that the value typology is applicable in every society in which it has been tested. In the last two and a half decades, the basic categories and structure of values have been confirmed in hundreds of samples taken from 82 nations, and representing various age, cultural, religious, and occupational groups (Schwartz 2012; c.f., Bilsky et al. 2011; Davidov et al. 2008; Fontaine et al. 2008; Schwartz 1992, 2012; Schwartz et al. 2012).

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[2] Political scientists have also argued that values generate political engagement and change (e.g., Barnes et al. 1979:309-311). In particular, postmaterialist/self-expression values (similar to Schwartz's self-direction, stimulation, and hedonism value-types) have been tied to higher levels of political participation, as well as the emergence and proper functioning of democracy (Barnes et al. 1979:343-380; Inglehart and Welzel 2005).

This does not imply that people individually or collectively prize the *same* ideals, but that social groups recognize the *same types* of ideals and the tradeoffs among them. For example, the value placed on money or interpersonal influence might vary across cultural groups, but both can be expressions of a common underlying recognition that power is potentially valuable, and that it is incompatible with other ideals such as universalism. The fact that value-types are so widely recognized suggests that they are a known, measureable, and general form of cultural content that can enrich our models of action.

3.4 Values as Content for Models of Culture and Action

Taken together, work by Joas, Hitlin, and Schwartz offer many reasons to reintroduce values into models of culture and action. Linking values to the self and to dual-process modes of cognition suggests that forming values and applying them to behavior is a general process, and extensive empirical evidence indicates that values display common structure and content in diverse populations. Values are therefore useful because they represent a broad and widely recognized motivational domain that can be applied to action quickly and automatically, which provides strong reasons to believe that they are important components in many types of action, across many domains, and throughout the world.

This claim underscores the importance of values at a macro-theoretical level, but provides little guidance on how values relate to action in concrete research applications.

Although this is an area of ongoing research, work to date suggests a few general principles. Values predict actions that express the motivations that they represent – conformity should predict obedience, for instance, while universalism should not. However, values can only predict if they are activated from memory and seen as applicable to a situation (either consciously or unconsciously). If a behavioral context activates multiple competing values, then the final motivational impulse will represent the tradeoffs among them – an inclination to help might be offset by a desire for personal gain, for example (Lönnqvist et al. 2006; Schwartz 2010:230–231). Because people are motivated to act in self-consistent ways and self-related information is processed quickly and automatically (Burke and Stets 2009; Devos et al. 2012), values that are central to a person's sense of self will be particularly motivating, and more likely to become active in a given situation (Verplanken and Holland 2002). Furthermore, some scholars argue that because values are abstract, their effects are mediated by concrete attitudes (Davidov, Meuleman, et al. 2008; Milfont, Duckitt, and Wagner 2010). This suggests that value effects will be larger when they have strong ties to behaviorally relevant attitudes.

Context plays a particularly crucial role in understanding value effects. Contexts provide a framework of cultural understandings that help actors decide what behaviors mean, which in turn influences how those behaviors are motivated. For example, the values that motivate marriage will differ depending on whether marriage is viewed as a

social duty (tradition, conformity) or as a means of personal fulfillment (hedonism, stimulation; e.g., Manting 1996). Similarly, the same values might motivate different behaviors across national or sub-cultural groups. A motive to conform, for instance, will produce different behaviors in church groups than in gangs. Contexts also matter because they can prime norms or other behavioral considerations that might override values or modify how they are expressed (Bardi and Schwartz 2003:1209; Kuntz et al. 2014; Lönnqvist et al. 2006). To the extent that these influences are absent, individuals must rely more on internal motivations to decide how to act. This suggests that values will guide action more when external pressures are low, and/or when norms are unclear (c.f., Kuntz et al. 2014). Values, then, can motivate many types of action, but whether those motivations are effective in producing behavior and which actions they predict will depend on the context.

3.5 The Current Study

The analyses that follow demonstrate the utility of values for understanding action. Consistent with the argument above, values have been shown to predict a variety of actions including prosocial behaviors, political action, exchange, and educational decisions in a variety of populations (Baker and Levine 2010; Barnes et al. 1979; Datler, Jagodzinski, and Schmidt 2013; Mitchell et al. 2008; Schwartz, Caprara, and Vecchione 2010; Schwartz 2010). I build on this foundation, but test a wider range of behavioral domains across 25 countries. This provides insight into the extensity of value influences

across both different types of behaviors and different national contexts, and illustrates the role of context in moderating value effects. To strengthen the case for causality, I then examine how values affect real-time decision-making during an online survey. This second set of analyses also forges an empirical link to current dual-process theories by testing Joas's claim that values operate using automatic cognitive processes. For clarity, I outline the data, methods, and results for the two sets of analyses separately.

3.6 Analyses with Cross-National Data: Testing the Extensity of Value-Behavior Relationships

3.6.1 Data

Data come from the second wave of the European Social Survey (ESS), a cross-national, representative survey that includes measures of both Schwartz's value dimensions and various forms of self-reported behavior. Missing data were multiply imputed (m=40), for a total sample size of 47,537. Outcomes originally missing were deleted from the imputed data sets prior to analysis to avoid possible biases and increase the efficiency of estimates (von Hippel 2007).

3.6.2 Values Measures

Values were measured with the 21-item version of Schwartz's Portrait Values Questionnaire (PVQ) (Davidov, Schmidt, et al. 2008). The PVQ asks respondents to consider a list of statements and report how much each "is or is not like you," and responses are formed into 10 scales representing the 10 value types. This approach is particularly useful because it measures values using self-related statements, which

provides a more direct test of the claim that values predict most strongly when associated with the self. Details on coding can be found in Appendix A. The ordering of the 10 values in these data is very similar to the theoretical structure (see Appendix B).

Although many studies analyze the 10 value types, I focus instead on the 2 bi-polar dimensions that underlie them, as previous research suggests that these dimensions are the most stable features of value structure across cultures (Schwartz 1992:43–44; Schwartz et al. 2012:675), and that the 21 item PVQ may not capture the full complexity of all 10 value types (Davidov, Schmidt, et al. 2008:431). Restricting attention to these dimensions also makes presenting and discussing the results more tractable. The tradeoff is that pooling distinct value types sacrifices analytic resolution and mitigates strong tendencies by pulling individual value effects towards their respective axis means. Fortunately, precise estimates of effect sizes are not necessary to demonstrate the extensity of value influences, which is the primary purpose of these analyses. There is also a theoretical advantage that offsets this cost – by using measures that are likely to give conservative estimates, we provide a more rigorous test of value-behavior relationships.

Measures of the two value dimensions were formed by adding positively associated values and subtracting those negatively correlated. For example, the variable *self-transcendence* was generated by adding items for benevolence and universalism for each person, and subtracting items for power and achievement (α=0.53). Similarly,

conservation was formed by adding items for conformity, tradition, and security, and subtracting those for self-direction, stimulation, and hedonism (α=0.69).[3] Both *self-transcendence* and *conservation* were standardized within nations prior to analyses.

3.6.3 Behavior Measures

All survey questions measuring behavior were sorted into domains of religion, social activities, family, prosocial behaviors, politics, and time use. These measures are described briefly here, with coding details given in Appendix A. *Religion* measures included attendance at religious services and frequency of personal prayer, while *social* variables included frequency of social activities compared with others of the same age and frequency of meeting socially with friends, relatives, or colleagues. *Family* behaviors were having ever been divorced and the amount of housework respondents do. *Prosocial* variables measure care for others both within and outside of the household, but also include a scale of anti-social activities during the past 5 years such as avoiding taxes or making false insurance claims. *Political* behaviors included whether or not respondents voted in the last national election in their respective countries, and a count of political

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[3] This approach is very similar to the 2-dimension coding proposed by Schwartz for ESS data (see http://essedunet.nsd.uib.no/cms/topics/1/5/3.html), and is consistent with an exploratory factor analysis where unrotated scale items load heavily onto two substantive factors (c.f. Schwartz's explanation here, footnote 5: http://essedunet.nsd.uib.no/cms/topics/1/4/4.html). My measures correlated strongly with scores from this factor analysis (r_C=0.88, r_{ST}=-0.76)

Because hedonism in the present sample is shifted away from the self-transcendence/self-enhancement dimension and towards conservation/openness to change, I included it in the latter measure rather than splitting it between the two dimensions as implied by the theoretic structure. This made little difference to the overall pattern of results.

activities performed during the past 12 months (e.g., working in political parties, contacting politicians). *Time use* variables assessed the amount of time respondents reported watching television, listening to the radio, reading the newspaper, or using the Internet.

Given that data are retrospective self-reports, it is possible that behavior measures are contaminated by recall or social/personal desirability biases. This seems especially likely for behaviors about which there are clear social norms, or that relate directly to respondents' value commitments (e.g., antisocial behaviors, Kreuter, Presser, and Tourangeau 2008). However, research suggests that despite substantial misreporting for these types of behaviors, *overall* rates of accuracy for self-reported data remain high: accuracy rates in one study ranged from 73% to 95%, with a mean of 90% (Kreuter et al. 2008).[4] Furthermore, the desirability of certain behaviors – and hence the motivation to misreport – might vary by national context (e.g., religious service attendance). Thus while we expect some inaccuracies, there is little reason to suppose that reporting errors will systematically bias the results.

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[4] Accuracy rates are the percent of respondents whose self-reported behaviors matched administrative records. They were calculated using interview-based responses (to match the ESS) from Table 9 of Kreuter, Presser, and Tourangeau (2008) using the following formula: $1 - [p_{\mathrm{R}} * p_{\mathrm{FN}} + (1 - p_{\mathrm{R}}) * p_{\mathrm{FP}}]$, where p_{R} is the actual proportion of respondents who engaged in a behavior (taken from the records), p_{FN} is the proportion of false negatives (underreports), and p_{FP} is the proportion of false positives (overreports). The behaviors in the Kreuter et al. study include those that may evoke value-motivated personal desirability biases, such as getting good grades (achievement) and donating money (universalism or benevolence), making it more likely that the accuracy rates reported there are applicable to the present study.

3.6.4 Contextual Measure

Determining which cultural, social, and legal features of a nation influence how values are expressed is an important question, but given space limitations I focus on just one aspect: the extent to contexts provide external guides for action. Values should have the widest range of influence in nations with fewer legal proscriptions and weaker norms regarding appropriate behavior – that is, in countries with higher levels of personal freedom. Personal freedom was measured using the average of three sub-scales from the Social Progress Index (SPI), a recently developed instrument designed to examine social progress in non-economic terms (Porter, Stern, and Green 2014). These sub-scales gauge a nation's support for personal rights, personal freedom and choice, and tolerance and inclusion, all of which I take as proxies for environments that promote personal freedom. Further details on this measure are given in Appendix A.

3.6.5 Controls

A hybrid propensity score/fixed effects method was used to semi-parametrically control for potential confounds. In propensity score analyses, individuals in a dataset can be thought of as having been non-randomly assigned to a treatment and a control group, where the treatment is the predictor variable for which a causal estimate is desired. By appropriately shuffling respondents, the analyst can create two groups that are equivalent on all confounding variables, but still differ in the treatment. Comparing the levels of some third variable between the groups then gives the causal effect of the

treatment on that variable. The key feature of this process is the "shuffling" phase in which respondents are sorted into groups. Typically, sorting occurs based on respondents' predicted probability of being treated given the confounders. These "propensity scores" can then be used to compare groups of individuals who are similar in their *probability* of being treated, but who differ in their *actual* treatment status (Morgan and Winship 2007).

The treatment variables in this study are measures of Schwartz's two underlying value dimensions. We want to compare those who have similar *predicted* levels of self-transcendence and conservation, but who differ in their *actual* levels. The problem is that these values come in many degrees, preventing any simple sorting into treatment and control groups. One solution is to use an adapted form of interval matching (c.f., Myers and Louis 2012; Senn, Graf, and Caputo 2007).

In interval matching, respondents are first sorted into strata based on their propensity scores, thus creating clusters of cases that are similar on all confounding variables. In a traditional analysis each stratum would contain just two treatment levels (treated and untreated), but with a non-dichotomous treatment variable there can be as many levels as there are unique values of the treatment variable. The crucial point is that extending the treatment to multiple levels does not change the logic of the analysis – if strata are sufficiently narrow, the treatment variable is independent of confounding variables within those strata. To estimate propensity scores for self-transcendence and

conservation, I first selected all variables from the data that theoretically might confound their relationship with behavior (descriptive information can be found in Appendix C). I then regressed each value dimension on this set within each nation, retained significant terms, and estimated model-predicted levels of self-transcendence and conservation for each respondent to serve as propensity scores (final models can be found in Appendix D). These scores are not on the probability scale as is typical, but in practice this makes little difference, as such transformations do not alter the relative ordering of cases. Using the propensity scores, I sorted respondents into strata of roughly equal size (24 to 26 respondents), though results are robust to strata size, as I demonstrate below.

In a typical application of interval matching the next step would be to calculate treatment effects within strata, and then pool these effects to produce a final estimate. Instead, I employed a fixed effects approach that can be estimated using just one model. Within each stratum, I deviated all respondents' self-transcendence and conservation scores from their respective means, producing variables containing only within-strata variation that could be used to provide fixed effect estimates (Allison 2009). The implementation here is different than the usual application of fixed effects, but the underlying logic is the same – just as deviation around a person-specific mean controls for time-constant characteristics of a person, deviation around strata means controls for anything common to the cases in each stratum. The major difference is that in the

present analysis within-strata similarity depends on the adequacy of the propensity score model rather than person-level stability over time.

Table 1: Average Magnitude of t-statistics Across Propensity Score Strata

	Avg. t-statistic	
Control variable	Self-transcendence	Conservation
Self-transcendence	---	0.99
Conservation	0.95	---
Female	0.86	0.85
Married	0.82	0.87
Age	0.86	0.87
Income	0.86	0.86
Education: upper secondary	0.84	0.85
Education: post secondary	0.83	0.85
Urban dwelling	0.85	0.86
Children at home	0.79	0.84
Self-rated health	0.86	0.86
Health hampers life	0.84	0.84
Religious group	0.83	0.86
Religiosity	0.85	0.87
Trust in science	0.87	0.85
Any important others	0.87	0.84
Happiness	0.89	0.88
Discriminated group	0.89	0.90
Negative experiences	0.85	0.86
Trust	0.86	0.86
Morality of others	0.86	0.87
Political orientation	0.86	0.87

Note: Data from the 2nd wave of the European Social Survey. Averages are weighted by strata size.

The level of within-strata similarity can be evaluated using a method similar to the one outlined by Hirano and Imbens (2004). Within each stratum, I calculated the correlation of self-transcendence and conservation with each control variable, and used a t-test to determine if these correlations were significantly different from 0. For each

control variable, I then averaged the resulting t-statistics across strata. As can be seen from Table 1, in no case did a mean t-statistic exceed the usual cut-off value of 1.96. Practically, this means that within-strata variation is not correlated with the control variables, and analyses using deviated value variables will provide estimates that have been semi-parametrically adjusted for confounders.

3.6.6 Analyses

The goal of these analyses is to determine how widely values predict behavior across behavioral domains and national contexts, which for ease of reference I call behavioral extensity and cross-national extensity. As a first step, I regressed each outcome on *self-transcendence* and *conservation* in each nation, producing 750 estimates (2 value dimensions x 15 behaviors x 25 nations).[5] I then aggregated this information in various ways to illustrate the importance of contexts for understanding value effects, and to examine both types of extensity, as I discuss below. Because the individual estimates are not of interest, I have placed them along with model details in Appendix E, and present key results below using figures. Influence is assumed to flow from values to

[5] The large number of behavior-value-nation combinations makes generating *a priori* theoretical predictions of value effects on specific behaviors infeasible, as this would require a discussion of the motivational underpinnings of each behavior, the values that express that motivation, and the ways that the context is likely to alter the relationship. Fortunately, demonstrating the extensity of value influences does not require theorizing the existence, direction, or magnitude of any *particular* relationship, but rather theoretical reasons to believe that values (as a whole) predict many types of behaviors across a variety of contexts. These reasons are provided in the front-end of the paper.

behavior, but because data are cross-sectional this cannot be established empirically – this issue is addressed later using real-time decision data.

3.6.7 Results

To begin, let us examine the claim that value effects vary across national contexts. Figure 3 displays boxplots of the standardized coefficients from regressions of each behavior on the two value dimensions, within each nation.[6] All non-significant estimates have been set to 0 to represent the possibility that they represent true non-effects rather than sampling error. Figure 3 reveals substantial variation in estimates across nations, with values effects ranging from non-existent to fairly sizable (e.g., $|\beta|>$ 0.10), depending on the behavior. For example, estimates of the relationship between self-transcendence and attending religious services are never distinguishable from 0, but estimates of self-transcendence and caring for those outside of one's household cover a wider spectrum, ranging from 0 to as high as 0.18. Furthermore, for 6 out of the 14 behaviors shown (voting, acting dishonestly, divorce, and spending time watching TV, reading the newspaper, or using the Internet), estimates for self-transcendence or conservation are positive in some countries, but negative in others. These findings suggest that value motivations translate into behavior differently in different settings,

[6] These results exclude activism. Activism was calculated using negative binomial regression, for which standardized estimates cannot be calculated.

and underscore the importance of considering national context when assessing how widely values predict action.

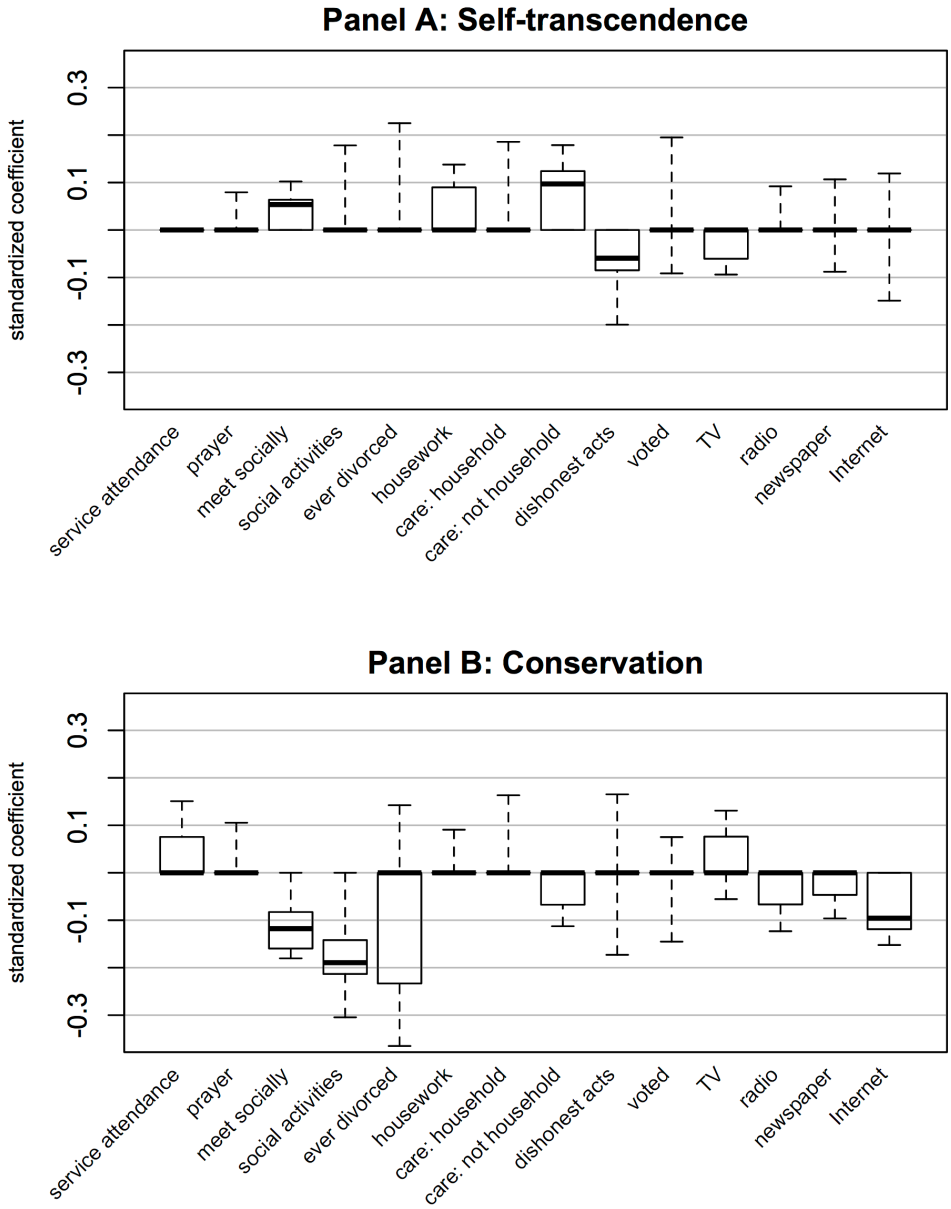

Figure 3: Spread of Standardized Coefficients Across Nations from Regressions of Behaviors on Value Dimensions

Behavioral extensity can be ascertained by examining the proportion of behaviors that are predicted by at least one value dimension.[7] Because of the contextual variation in value effects, I calculated these proportions within nations, where contexts are held constant. Results are displayed in Figure 4. On average, values predicted 59% of behaviors, but actual estimates range from 27% in Hungary to 87% in Germany. In all but 5 countries, values predicted more than half of behaviors, and in 15 out of 25 values predicted 60% or more. This indicates that while there is substantial variation in behavioral extensity across countries, values typically predict fairly widely. Figure 4 also makes it clear that values have a wide scope of influence cross-nationally, predicting behaviors in every nation in the sample.

[7] Some behaviors are predicted by both value dimensions, which suggests that they are shaped by multiple motivational logics. For example, a person might care for household members because she is self-transcendent, and also because she values a traditional, family-centered lifestyle.

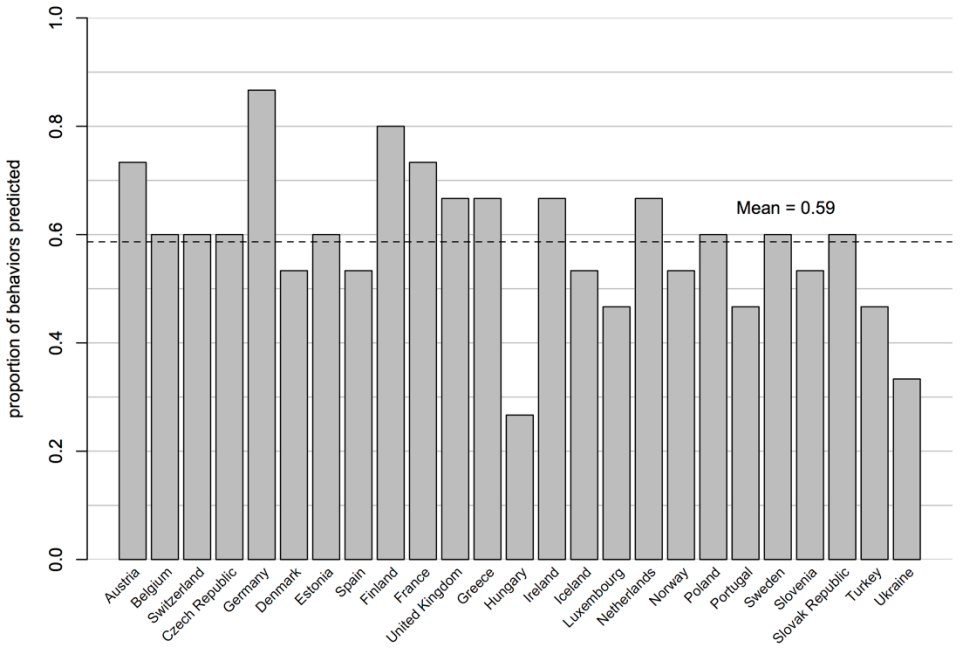

Figure 4: Proportion of Behaviors Predicted by Value Dimensions, by Nation

Note: Value dimensions are counted as predicting a behavior if at least one of the two dimensions has a statistically significant estimate.

Results support the idea that values have wide-ranging effects on action. However, because values never predict 100% of behaviors, it is possible that there is a subset of behaviors that values never influence, in any context. To test this, we can shift our focus from the proportion of behaviors values predict in each country to the proportion of countries in which values predict each behavior, with a proportion of 0 suggesting that values never predict the behavior in question in any of the 25 countries. This information is given in Figure 5. Proportions range from 0.24 for voting to 0.92 for the two social outcomes, indicating that values predict *every* behavior in at least 24% of

the nations considered (i.e., 6 countries). For 5 out of 15 behaviors – meeting socially, social activities, caring for those outside one's household, political activism, and using the Internet – significant relationships exist in more than 75% of countries.

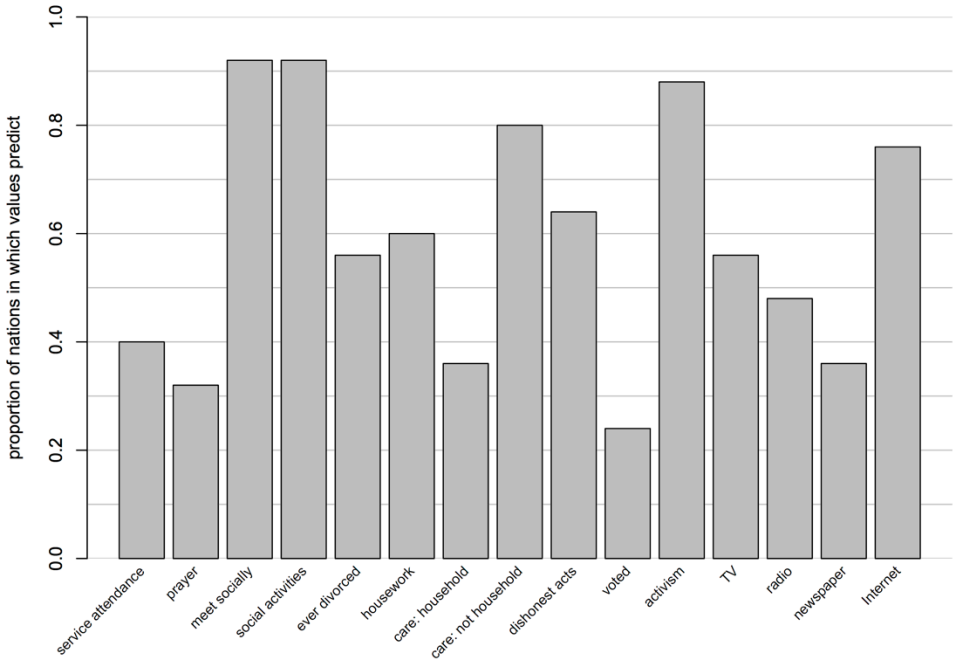

Figure 5: Proportion of Nations in which Value Dimensions Predict Behaviors

Note: Value dimensions are counted as predicting a behavior within a nation if at least one of the two dimensions has a statistically significant estimate in that nation.

Findings to this point are consistent with the idea that value effects have wide ranging influence on behavior, but they are silent on why the scope of value effects varies across countries. As I argued above, value effects should be most extensive in nations where individuals experience high levels of personal freedom. Initial support for

this idea comes from Figure 6, which shows a scatterplot of the percent of behaviors predicted in each nation (see Figure 4) by personal freedom scores.[8] Fitting a linear regression to these points returns a slope of 0.005 ($p = 0.046$), indicating that values influence a wider range of behaviors as levels of personal freedom increase. To give a sense of the magnitude of this effect, imagine that Turkey increased in personal freedom from 51.0 to the same level as countries like Denmark, Norway, or the Netherlands (all located roughly at the 3rd quartile, 85.2). The model predicts that this change would increase behavioral extensity in Turkey from 0.46 to 0.64, a gain of 0.18 percentage points. Personal freedom, then, appears to be an important moderator of value effects. However, the spread of points around the regression line suggests that there are many other features of national contexts that also shape how (and if) values are expressed. Identifying these features is an important task for future research.

[8] Excluding Luxembourg, for which SPI scores were not available.

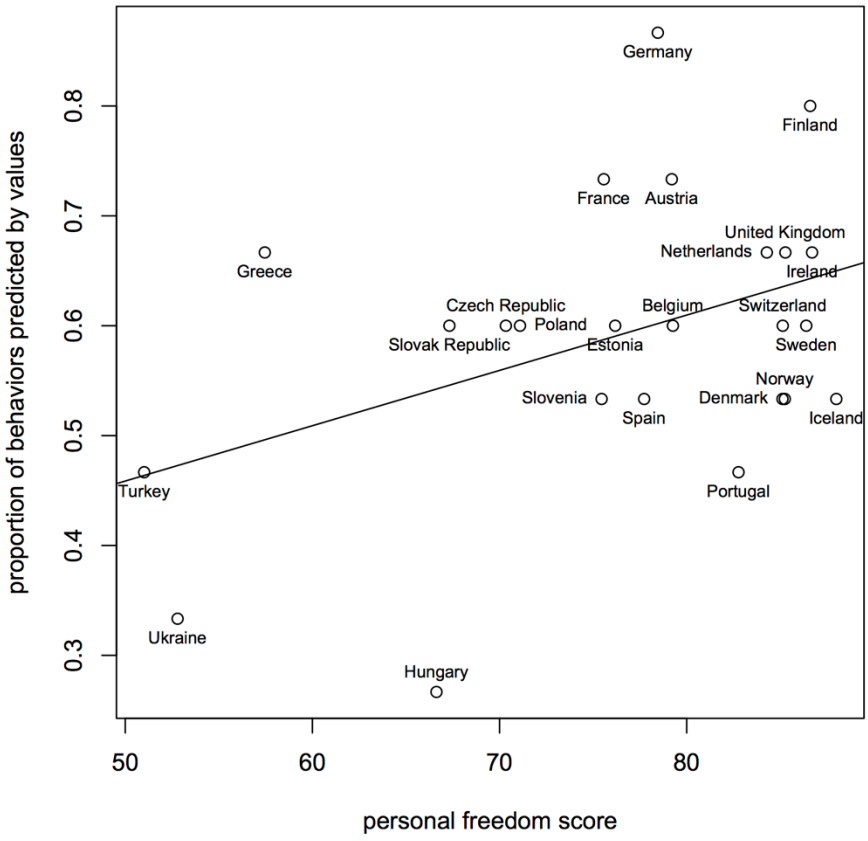

Figure 6: Proportion of Behaviors Predicted by Values and Level of Personal Freedom

3.6.8 Validity Check: Varying the Number of Strata

The accuracy of the foregoing results rests on the assumption that those in each stratum are sufficiently similar to eliminate the specter of unobserved heterogeneity. The extent to which this is true is a product of both the variables chosen for the propensity score model, and the precision with which respondents are matched. Little can be done to improve the first, but matching precision can be assessed by varying the number of

respondents assigned to each stratum, with fewer respondents forcing more similarity. Figure 7 compares the estimated effect sizes ($|\beta|$) for each behavior after reducing the number of respondents in each stratum from 25 to 20. For reference, Figure 3 also shows effect sizes from regressions with 30 strata and without adjustment. Rather than present estimates from each nation, Figure 7 displays results from the two countries in which coefficients changed the most (i.e., that are the least robust to altering the strata size) – Ukraine for self-transcendence, and the Slovak Republic for conservation. Although there is a noticeable change in estimates from the unadjusted to the 30 per stratum regressions, as we would expect, effects change only slightly when reducing strata size to 25 or 20. This suggests that estimates have largely stabilized by a strata size of 30, and increasing matching precision beyond this point adds little to the estimates.

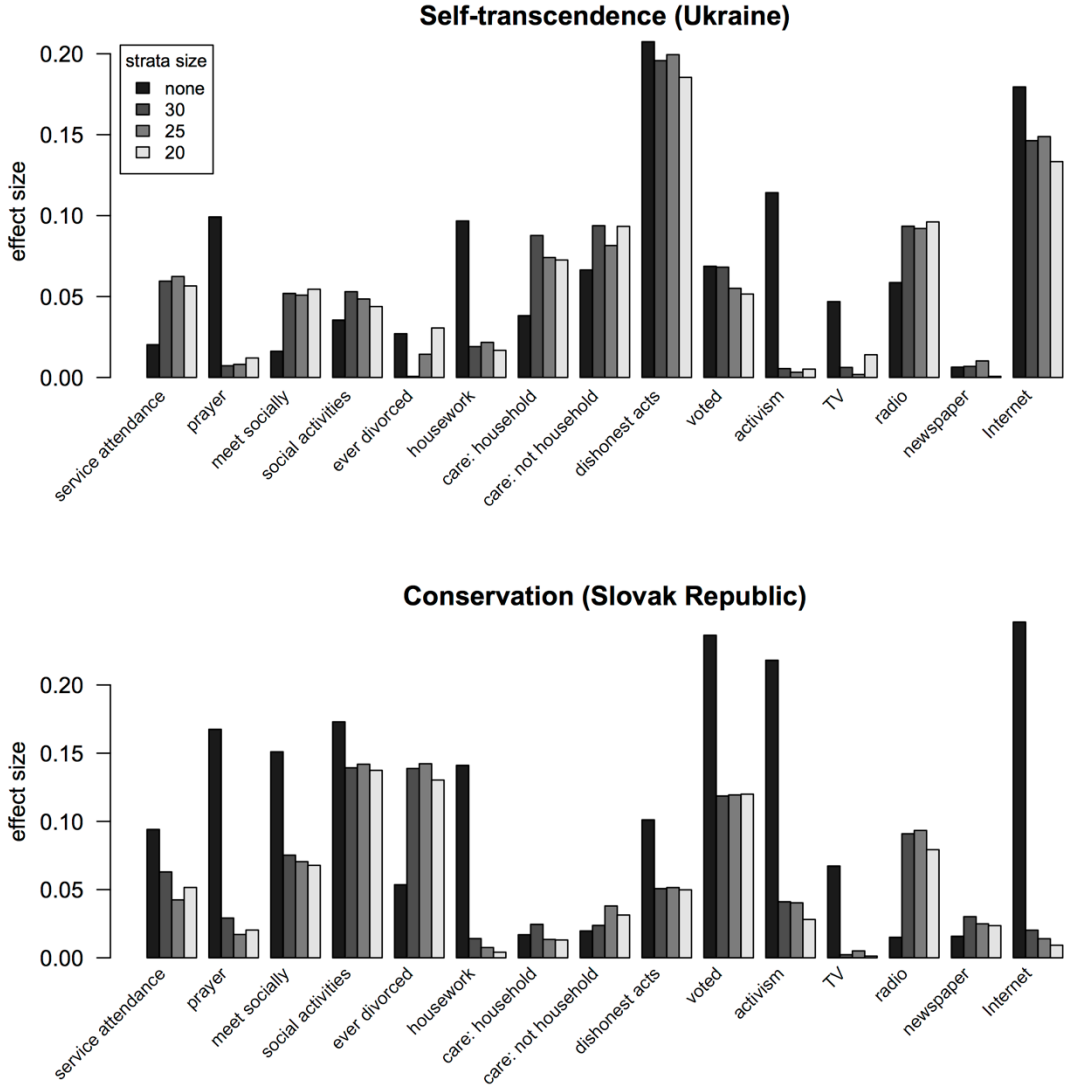

Figure 7: Effect Sizes for Value Dimensions with Varying Strata Sizes

3.6.9 Discussion

These results support the idea that values matter for many types of behavior and in many contexts. Self-transcendence and conservation value dimensions predicted 15 different actions taken from 6 behavioral domains, and shaped behaviors in all 25

nations – every country included in the study. The particulars – that is, which values predicted which behaviors – varied by nation, consistent with the idea that how value motivations are expressed depends on cultural, social, and legal contexts. Differences in value effects were partly explained by the levels of personal freedom experienced by individuals in each country, with higher freedom leading to more extensive value prediction.

Estimates were based on measures of the two value dimensions that underlie the Schwartz typology. This made comparisons across nations more tractable, but at the cost of nuance that could have strengthened value effects. Even still, value estimates were often moderately large, and supplemental analyses suggest that these effects compare favorably with those for a variety of key demographic variables such as gender, having children at home, or living in an urban setting (see Appendix F for details). The fact that such coarse measures nonetheless had extensive and (in many cases) strong ties to behavior reinforces the claim that values are important components of action.

However, results rely on cross-sectional, retrospective data, which means that the direction of causation must be assumed. The next set of analyses clarifies causal direction by linking values to decisions made in real-time, and also examines whether values operate via automatic cognitive processes as current theorizing suggests.

3.7 Analyses with Real-Time Decision Data: Causality and Dual-Processes

3.7.1 Data

Data come from an online survey administered in the summer of 2013, with quotas for race and gender. Of the original 1,034 respondents, 4 were deleted due to missing weights (described below), and the data were then multiply imputed 20 times. As before, all participants originally missing data on the outcome were deleted prior to analyses (von Hippel 2007), as were individuals who failed an attention check during the main study task. This leaves a final sample of 907.

Several steps were taken to improve data quality. The survey was administered online, which reduces social desirability concerns, and blocks of questions (and questions within blocks) were presented in random order to reduce ordering effects (Podsakoff, MacKenzie, and Podsakoff 2012; Tourangeau and Yan 2007). Values and the decision task were measured using well-validated instruments with different response formats, thereby reducing threats from question ambiguity and scale effects. To avoid priming, the two measurements were always separated by a cognitively demanding word-sorting task, and in some cases one or more blocks of questions as well (depending on randomization).

3.7.2 Study Design

Fazio and Olson (2003) argued that survey measures often tap both implicit and explicit cognition. If respondents are rushed or not motivated to think deeply, their

answers are more likely to reflect automatically activated thoughts and feelings. Alternately, motivated individuals might intentionally consult their feelings to answer certain types of questions (e.g., evaluative questions). In either case, respondents simply pick the answer that feels right from the "lineup" of options (see Vaisey 2009). This suggests a crucial point – self-report measures can provide insight into dual-process cognition, but reaping this benefit requires us to separate the explicit from the implicit components.

One way to do this is to place respondents under a "cognitive load" that inhibits the operation of deliberative processes but leaves fast, automatic processes unhindered. If the load is sufficient, respondents will find their reasoning capacities impaired and must base their actions on automatically activated impulses. Logically, any survey measure that predicts these actions must do so because it taps the same automatic processes. In effect, cognitive loading techniques allow one to take survey measures containing a mixture of automatic and deliberative influences and examine the effects of the automatic components alone.

I employed a numbers-based cognitive loading technique that has seen wide use in psychological research (c.f., Bargh and Chartrand 2000). Respondents were randomly assigned to remember either a simple or random 8-digit number (20002000 vs. 24601358), which they subsequently reported. Prior research and pre-testing suggests that remembering an 8-digit number adequately inhibits conscious deliberation (c.f.,

Bargh and Chartrand 2000). To reduce the influence of participants who did not try to remember the number, I removed from the analyses any respondent whose reported number was more than four digits different from the true number (N=107).[9]

Respondents in both high and low load conditions participated in an adaptation of the dictator game, a task used in behavioral economics to study pro-social behavior. (Engel 2011). Respondents were told that they had been given 10 tickets for a raffle, but that the person taking the survey after them had been given none. They were told that the tickets were theirs to keep, but that they could transfer as many as they wished to the person after them. The behavior of interest is the number of tickets respondents chose to transfer.

Of course, generosity means little if individuals do not care about what they are giving away. Fortunately, there are at least two reasons to believe that participants saw giving tickets as consequential behavior. First, the raffle was real and presented as such, with respondents receiving as many entries as they had tickets for (after removing those given away). Second, the distribution of tickets given is similar to those found in studies that use guaranteed payoffs, suggesting that similar processes of valuation and decision-making were at work (compare figure 8 of Engel 2011 to the description below).

[9] Results including these cases are substantively similar to those presented here, though estimates are less efficient.

3.7.3 Values Measures

Values were measured with a gender-neutral adaptation of the PVQ. Past research suggests that self-transcendence values are associated with pro-social impulses, so I restrict attention to the self-transcendence/self-enhancement in the analyses that follow (Schwartz 2010). Self-transcendence was calculated in the way described in the cross-national analyses, except that mean of hedonism was subtracted from the overall score, consistent with the location of hedonism in the sample and with the theoretical structure found in Figure 2 (α=0.74).[10] *Self-transcendence* was standardized prior to analyses.

3.7.4 Analyses

We want to know whether self-transcendence values have a causal impact on ticket giving, and whether that effect persists when respondents are placed under cognitive load and are forced to rely on automatic processing. Establishing causality requires determining the direction of effects and isolating self-transcendence from all confounding variables.

With regard to the former, all values were assessed prior to the dictator game, indicating that influence must flow from values to ticket-giving. Isolating self-transcendence from potential confounds was accomplished using the same propensity score/fixed effects technique used in the cross-national analyses. To estimate propensity

[10] Results are robust to the inclusion or exclusion of hedonism.

scores, I linearly regressed self-transcendence on all variables from the data that theoretically could confound its relationship with ticket giving, including squared terms for all continuous variables and all two-way interactions, and retained significant terms (see Appendix C for descriptive information, and Appendix D for the final model). As in the cross-national analyses, I sorted respondents into strata of roughly equal size (12-13 respondents each), confirmed that covariates were balanced within them, and created within-strata deviated self-transcendence scores. In contrast to the cross-national analyses, these scores are used to predict a behavior measured in real time. This means that if we can assume that controls are adequate, then the fixed-effect estimates of self-transcendence on ticket giving will be causal estimates.

The distribution of tickets given has peaks at 0, 5, and 10 (not shown), suggesting that respondents used a category-based decision process - i.e., do I give the fair amount, more, or less? Consequently, I coded ticket giving into categories of giving less than 5, 5, and more than 5, and used multinomial logistic regression with cluster-robust standard errors (clustered on strata) for analyses.

A final issue concerns the selection biases inherent in using data from an online, opt-in sample. Evidence to date suggests that applying post-stratification weights for variables that predict selection into the sample sometimes improve estimates, but can also produce biases of its own (Baker et al. 2010, 2013). For this reason, all analyses below are presented both with and without weights. I calculated post-stratification

weights based on 2013 counts for race, marital status, and education, all of which have been shown to predict Internet access and, therefore, the possibility of participating in an online survey (Dever, Rafferty, and Valliant 2008; File 2013).[11]

3.7.5 Results

Table 2: Multinomial Logit Regression of Ticket Giving Categories on Self-Transcendence and Cognitive Load Condition

	Model 1				Model 2			
	A		B (weighted)		A		B (weighted)	
5 tickets (ref= < 5)								
Intercept	-0.05		-0.06		-0.05		-0.06	
	(0.10)		(0.12)		(0.10)		(0.12)	
Self-transcendence	0.25	**	0.28	**	0.08		0.15	
	(0.09)		(0.10)		(0.12)		(0.14)	
High load	0.30		0.33		0.32	*	0.33	
	(0.16)		(0.18)		(0.16)		(0.18)	
Self-transcendence X High load					0.44	*	0.34	
					(0.19)		(0.21)	
[ME: Self-transcendence X High load]					[0.53]	***	[0.50]	**
					(0.15)		(0.16)	
> 5 tickets (ref= < 5)								
Intercept	-0.32	**	-0.34	**	-0.32	*	-0.35	***
	(0.11)		(0.13)		(0.11)		(0.13)	
Self-transcendence	0.17		0.23		0.02		0.12	
	(0.10)		(0.12)		(0.13)		(0.15)	
High load	0.07		0.21		0.10		0.23	
	(0.17)		(0.20)		(0.18)		(0.20)	
Self-transcendence X High load					0.42	*	0.29	

[11] Counts were obtained from the 2013 Current Population Survey, available at www.census.gov/cps/data/cpstablecreator.html.

	(0.21)		(0.24)	
[ME: Self-transcendence X High load]	[0.44]	**	[0.41]	*
	(0.17)		(0.19)	

Note: Data taken from the online survey, N=907; marginal effects of self-transcendence in the high load condition are given in brackets.

Model 1 of Table 2 displays results for both unweighted (A) and weighted (B) regressions that pool self-transcendence effects across the low and high cognitive load conditions. In both cases, self-transcendence predicts higher log odds of giving 5 tickets (vs. < 5). Estimates for giving > 5 tickets are also positive, but do not reach statistical significance.

Model 2 tests the hypothesis that values operate via automatic processes by adding an interaction between self-transcendence and cognitive load condition. Results for Model 2A and 2B reveal that self-transcendence does not affect the log odds of being in either the 5 or > 5 category for those in the low load condition. In contrast, marginal effects for both the unweighted and weighted models show that self-transcendence *does* significantly predict selection into both the 5 and > 5 categories for respondents in the high load condition (shown in brackets in Table 2). This suggests that values predict ticket giving only for those who were forced to rely on fast, automatic cognitive processes.

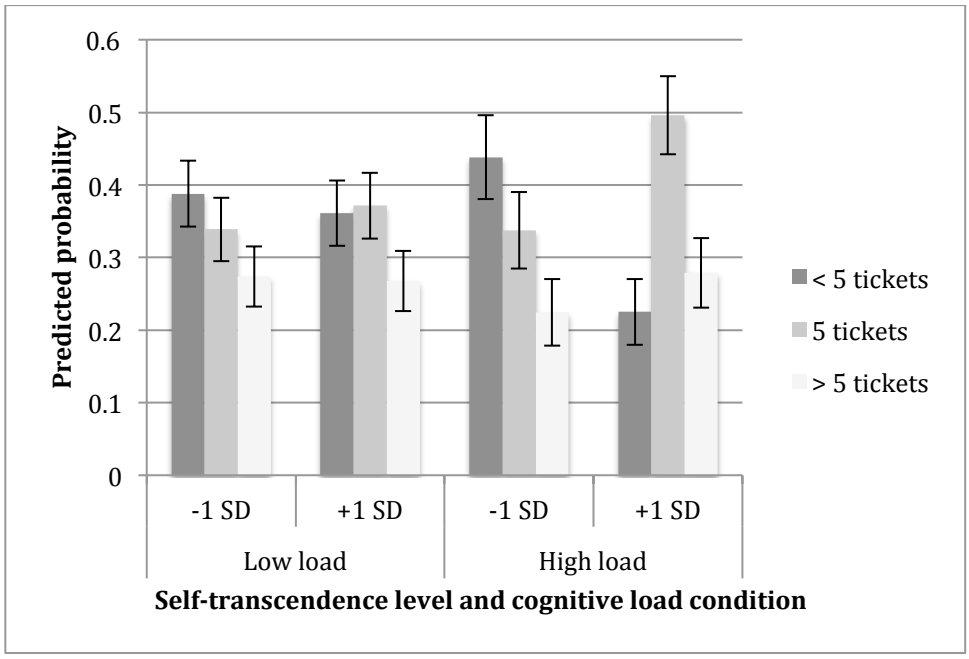

Figure 8: Predicted Probabilities of Giving < 5 or 5 Tickets Based on Self-Transcendence Values and Cognitive Load Condition

How large are these effects? Figure 8 displays predicted probabilities of respondents selecting into the < 5, 5, and > 5 ticket giving categories for those both 1 standard deviation (SD) above and below the mean of self-transcendence, and in both the high and low cognitive load conditions (predictions from model 2A). Error bars are calculated using the method outlined by Goldstein and Healy (1995), such that non-overlapping bars suggest predictions that are significantly different from one another. Figure 8 makes it clear that self-transcendence has little effect on ticket giving for those in the low load condition – the probabilities of selecting into the three giving categories do not change substantively when moving from self-transcendence that is 1 SD below to 1 SD above the mean. Changes are more dramatic for those in the high load condition.

Here, this 2 SD shift corresponds to a statistically significant drop of .21 in the predicted probability of being in the < 5 category (from .44 to .23), and an increase of .16 in the probability of giving 5 tickets (from .34 to .50). Similarly, the probability of being in the > 5 category increases from .22 to .28, but this difference is not statistically significant. Overall, Figure 8 suggests that values substantially affect ticket-giving behavior when they operate using implicit cognitive processes.[12]

3.7.6 Discussion

Results are consistent with the claim that values are causally linked to behavior, and this interpretation is strengthened by the use of appropriate time ordering, real-time decision behavior, and extensive controls. The case can be made stronger by logically eliminating alternative explanations. One possibility is that respondents high in social desirability concerns are both prone to over report self-transcendence and give more tickets, but this explanation seems unlikely given that survey procedures minimized social desirability concerns (Tourangeau and Yan 2007). A more likely possibility is that self-transcendence values and pro-sociality are shaped by stable personality factors that predispose some individuals to both value generosity and act in kind, helpful ways (e.g., the personality trait of agreeableness). However, research that has explored the connections between values and personality find that the two are related but distinct, which suggests that personality cannot fully explain value effects (Parks-Leduc,

[12] Results are robust to the number of strata used.

Feldman, and Bardi 2014). Nor is it likely that values are standing in for attitudes; if anything, scholars suggest that the relationship is the other way around, with concrete attitudes expressing general value ideals (Hitlin and Piliavin 2004:360-361). Attitudes might therefore mediate value effects, but not confound them. The fact that social desirability, personality, and attitudes are unlikely to completely account for value effects on ticket giving does not guarantee causality, but it does lend credence to a causal interpretation.

These analyses also demonstrate that values operate using automatic cognitive processes, just as Joas theorized. In this case, it seems that values affected pro-social behavior only when conscious deliberation was suppressed. Why might this be? Joas argued that conscious thought engages when problems arise in performing actions (c.f., Gross 2009), and the dictator task could represent a "problem" in the sense that it is an unfamiliar situation. The dictator task is likely to automatically activate pro-social impulses for anyone high in self-transcendence, but those in the low load condition have the ability to hold this motivation in check until they have time to consider all possible courses of action. They might decide that their values demand that they act generously, or they might find reasons to act in a self-interested manner (such as the fact the payoff is uncertain, which past research suggests prompts less giving, Engel 2011:591). Those in the high load condition lack this conscious buffer and are more likely to act on their initial pro-social impulse, leading to overall higher rates of giving. This explanation is

admittedly speculative, but suggests an important point: conscious thought does not guarantee values a privileged place in shaping action.[13] Future work should examine the circumstances under which deliberation leads to more or less value-behavior consistency.[14]

3.8 General Discussion and Conclusions

Dual-process models have advanced our understanding of action, but lack an adequate account of which types of cultural content matter for behavior. Drawing on the work of Joas, Hitlin, and Schwartz, I have argued that values can begin to fill this gap because they represent a form of widely recognized, motivating culture that can be applied using fast cognitive processes and that, through ties to the self, are likely to affect behaviors that occur in many types of contexts. This replaces the consensus-oriented, often tautological functionalist work on values with a cognitively plausible, empirically supported framework that can accommodate both conflict and consensus.

I demonstrated the utility of values by showing that they predict widely, operate via automatic cognitive processes, and appear to have a causal impact on behavior. In cross-national analyses, either self-transcendence or conservation value dimensions

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[13] At first glance, this claim seems to be at odds with work that indicates that planning and intention play a major role in behavior (e.g., studies using the theory of planned behavior). However, much of this research relies on survey data that might tap automatic as well as deliberative processes, and to my knowledge the relative contributions of each have not been tested.

[14] Consistency might depend on the behavior in question. We might expect, for instance, that individuals try to consciously align their actions with their values when making major life decisions such as who to marry or which career to choose.

predicted 15 self-reported behaviors that crosscut domains of religion, social activities, family, prosocial behaviors, politics, and time use. Value-behavior relations were found in each of the 25 nations examined, suggesting that value influences on behavior are not isolated to a particular society or cultural tradition. However, national characteristics affect how values are expressed, with values predicting more widely in nations that allow for higher levels of personal freedom. The next set of analyses tested the proposed dual-process mechanism. Consistent with Joas's arguments, self-transcendence values predicted observed (vs. self-reported) prosocial behavior for those under cognitive load, suggesting that values operate via automatic cognitive processes. Contingent on the adequacy of the propensity score model, this relationship appears to be causal. Taken together, results suggest that values have real influences on action in a variety of situations and domains.

What are the implications of these studies for sociologists? First, they provide a reason to move beyond a focus on process and consider the contributions made by specific forms of cultural content. Dual-process cognition may provide the machinery through which internalized culture operates, but such machinery can be put to the service of many goals. If we wish to understand the how these processes shape specific types of behavior, we must introduce concrete content that predisposes individuals towards one action or another. While some of this content might be domain-specific (e.g., specific attitudes), values are useful because they act as a motivating force that

crosscuts contexts and influences many behaviors. Future work could profitably be directed towards exploring other forms of culture with this cross-situational property, such as highly salient identities (c.f., Miles 2014). More generally, these results support recent calls for sociologists to take the role of socialized dispositions on behavior more seriously (Campbell 1996; Ignatow 2009; Joas 1996; Vaisey 2009).

Second, the fact that values predict so widely warns against tucking them away in sub-disciplines while mainstream research proceeds uninterrupted. Rather, if behavior is involved in the processes under study, researchers should recognize that values might be working quietly behind the scenes. A lack of attention to values may hinder explanations of social phenomenon of interest to sociologists, such as stratification and social conflict (Hitlin and Piliavin 2004; Wuthnow 2008). To give just one example, scholars have long sought to understand political behavior and its contribution to social change. Values can shed light on this topic at multiple levels of analysis. At the individual level, research indicates that values predict political actions including vote-choice (Miles and Vaisey 2014; Schwartz et al. 2010), non-voting (Johnson et al. 2014), activism (Barnes et al. 1979; Schwartz 2010), and participation in political groups and movements (Miles and Vaisey 2014), while at the macro-level values have been shown to contribute to both democratization processes and effective democratic rule (Inglehart and Welzel 2005). Clearly values can enhance our understanding, but reaping this benefit will require elaborating how values can be integrated into existing

sociological theories of political processes and social change (c.f., Walder 2009). Attention could fruitfully be applied to questions such as: How do values contribute to the perceptions of social needs? To what extent do values make people amenable (or not) to political mobilization efforts? What role do values play in forming and maintaining collective identities? How do popular values influence the long-term effectiveness of political and social changes implemented by elites? Of particular interest is the question of how value influences on political outcomes are cognitively processed. Do individuals make political decisions after reflecting on their values, or are they more often guided by automatically activated feelings and impressions?

This study also demonstrates *how* sociologists can re-engage values without running afoul of the challenges that beset functionalist value theories. Schwartz's work provides measurement tools and a theoretical structure that can be adopted directly, and existing work suggests that doing so will provide valuable insights on subjects of interest to sociologists, such as morality (Vaisey and Miles 2014) or educational attainment (Hitlin 2006). Cognitive loading techniques combined with a variety of real-time behavioral tasks can be used to further explore how values operate, and to address sociologically important questions such as how the automatic activation of non-compatible values in different people might lead to social conflict. Spates (1983) argued that sociologists might also benefit from rereading Parsons, Kluckhohn, and their colleagues; the potential lies in the fact that we can now submit many of their claims to

rigorous empirical testing, and therefore are better positioned to glean theoretical wheat from the functionalist chaff.

Future work could profitably extend the present results in a number of ways. Although the cross-national analyses demonstrated that values predict widely, it did not assess all potentially relevant behavioral domains, lacking in particular measures of discriminatory behaviors that are of interest to scholars of race, gender, and stratification. Measures of observed behavior combined with closely spaced panel data could also be helpful in strengthening the case for causality. Some researchers have noted that values can serve as justifications as well as motivations (Hitlin and Piliavin 2004; Hitlin 2008), suggesting the need to examine when one or the other occurs. The present results (and Joas' and Hiltin's work) indicates that motivation may be tied to the extent to which values have been incorporated into the self, but more research is needed to flesh out these connections (c.f., Verplanken and Holland 2002). Finally, additional work could be directed toward understanding how values and situations interact to produce action. Here theoretical connections between values and the self can provide insight, suggesting that values may interact with situations in much the same way as identities (Burke and Stets 2009, chapter 3; Miles 2014).

Values have spent decades languishing in the sociological shadows, but the time has come to bring them back out into the sunlight of renewed scholarly attention. Although much work remains, the present study provides compelling reasons to

reconsider the role of values in studies of culture and action. Values have shed their functionalist trappings, and operate in cognitively plausible ways to influence behaviors that occur in many domains. Armed with new theories and evidence, sociologists can re-engage the study of values in ways that enhance our understanding of action and yield insights into important social processes.

4. Demographic Correlates of Moral Differences in the Contemporary United States[1]

One of Pierre Bourdieu's lasting legacies is the recognition that seemingly idiosyncratic and inconsequential cultural tastes are neither idiosyncratic nor inconsequential. Rather, personal cultural capital is what allows some people to interact easily with high status others and to gain access to valued social and economic rewards (Bourdieu 1984, 1986). Although those in positions of power usually unconsciously favor those with similar forms of capital, the process can also be intentional (Lamont 1992; Rivera 2012).

A number of scholars have extended this line of thinking, noting that individuals also make distinctions along moral lines (Fourcade and Healy 2007; Graham and Haidt 2012; Lamont 1992, 2012; Lamont et al. 1996; Prasad et al. 2009). As with other forms of differentiation, moral distinctions can lead to misunderstandings, reduced empathy, and even differential evaluations of worth, which in turn can create uneven access to social, economic, and political rewards (Ditto and Koleva 2011; Liu and Ditto 2013; Prasad et al. 2009; Sayer 2010). These disparities in access are likely to be systematic to the extent that social divisions pattern moral differences. This makes it important to determine how moral worldviews are distributed across the social landscape.

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[1] This chapter is published in *Poetics* volume 46, pages 75-88.

Recently, scholars have argued that morality depends on a variety of factors including evolved psychological intuitions, cultural socialization, and personal experiences (Graham et al. 2013; Greene 2013; Sayer 2010). Although intuitions generally provide a common "first draft" of morality, different cultural, sub-cultural, and personal experiences heavily revise this initial material, leading to a wide variety of moral outlooks (Graham et al. 2013:61). Bourdieu (1990) argued that socializing experiences vary by social location, and work together to form dispositions that shape subsequent thought, perception, and action (i.e., the habitus). Consistent with work on morality, these dispositions often have a moral character, giving individuals a sense for what is right or wrong, worthless or worth striving for (Bourdieu 1984; Ignatow 2009; Vaisey 2009). The result is that differences in moral dispositions are likely to run along lines of prominent social distinctions, such as race, class, gender, and socioeconomic status (c.f., Marsh 2009; Sayer 2010).

Morally formative experiences are also likely to vary by other socio-demographic characteristics. For example, participation in a religious group can create a sense of moral order, and embed individuals in dense social networks that provide opportunities and support for moral action (Bader and Finke 2010; Durkheim 1995 [1912]). The contours of this shared morality vary by the religious tradition and religious and/or political ideology that characterize a given religious community (Putnum and Campbell 2010; Wuthnow 1988). Local or regional sub-cultures might also predict moral norms

and behaviors; in the United States, for instance, the South is associated with both high levels of religiosity and – among whites males – participation in a "culture of honor" that emphasizes both positive and negative forms of reciprocity (Cohen et al. 1996; Leung and Cohen 2011; Putnum and Campbell 2010). Moral understandings might also vary with age, both because age captures cohort-based variations in life experiences (e.g., coming of age in the 1960s), and because individuals' concerns may shift in patterned ways as they move through the life course (Danigelis et al. 2007; Harding and Jencks 2003). Personal experiences, too, are likely to play a role. Major life events such as marriage, divorce, or loss of employment can shift a person's social networks and provide support for different types of moral logics and activities (e.g., selecting into or out of religion, see Stolzenberg, Blair-Loy, and Waite 1995).

Initial evidence supports the idea that morality maps in patterned ways onto social and demographic characteristics. Several studies have found that women rate other-centered concerns (e.g., caring for others) more highly than men, and self-focused concerns less highly (e.g., power, achievement; Graham et al. 2011; Longest, Hitlin, and Vaisey 2013; Schwartz et al. 2012). Older cohorts likewise express more concern for others, and additionally place greater importance on conformity to social norms, preserving traditions, and respect for authority than younger cohorts (Koleva et al. 2012; Lamont et al. 1996; Longest et al. 2013). Conformity and tradition are also more important among those who frequently attend religious services, but less salient for

those who have attained higher levels of education (Lamont et al. 1996; Longest et al. 2013). Class also plays a role, shaping a variety of values and morality-related social attitudes (Sayer 2010; Weeden and Grusky 2005).

These studies support the claim that morality is socially patterned, but fall short in a number of ways. In many cases, links between morality and demographic characteristics are treated only superficially, as a step towards pursuing analyses with a different focus (e.g., a table of bivariate correlations; c.f., Aquino and Reed 2002; Koleva et al. 2012). Among sociologists, scholars often use attitudes towards specific social issues (e.g., pornography laws) rather than measures of the moral constructs thought to underlie them (e.g., freedom, purity, c.f., Danigelis et al. 2007; Weeden and Grusky 2005). Even within the reviving sociology of morality treatments vary widely in the questions they address and often draw on ad hoc moral frameworks and measures, making systematic comparisons challenging (Hitlin and Vaisey 2013). In contrast, psychologists use established morality scales, but often base their conclusions on convenience samples that potentially limit their generalizability (e.g., Graham et al. 2011; Schwartz et al. 2012). A recent study by Longest and colleagues (2013) is a notable exception to these trends, using both validated measurement instruments and a large, representative data set; however, analyses examine one type of morality (values) and are restricted to European countries. Past work is therefore suggestive, but limited in its

scope of application, indicating a need for further research using representative samples and a range of established morality measures.

4.1 Operationalizing Morality

In the past decade and a half, scholars have theorized and measured multiple dimensions of morality. In this study, I focus on three aspects that have received considerable attention across disciplines: moral identities, values, and moral foundations. Theoretically, using multiple constructs provides insight into whether demographic characteristics relate only to specific types of morality, or to morality generally. Although these particular constructs do not fully span the moral domain, they represent several of its most important facets (Hitlin 2008; Vaisey and Miles 2014). Moral identities give concrete form to the idea that morality is often (if not always) self-definitional (Hitlin 2008; Smith 2003), and link moral processes to a substantial body of research on self-processes (e.g., Stets and Carter 2012). Values – typically defined as conceptions of the desirable – tap notions of the "good life," while moral foundations capture moral prohibitions and obligations (Vaisey and Miles 2014). Practically, these constructs are attractive because they can be operationalized using validated, well-established measurement instruments that provide an immediate link to a sizable body of existing research.

The moral identity was first developed by psychologists Aquino and Reed and later introduced to sociologists by identity theorists Stets and Carter (Aquino and Reed

2002; Stets et al. 2008). The moral identity assesses the extent to which individuals see themselves as honest, caring, kind, fair, helpful, generous, compassionate, truthful, hard working, friendly, selfless, and principled, and past work suggests that it is a reliable predictor of pro-social behavior (Aquino and Reed 2002; Stets et al. 2008).

Values have been extensively studied by Schwartz and his colleagues (Bilsky et al. 2011; Schwartz 1992). Schwartz identified 10 overarching value dimensions: conformity (adherence to norms), tradition (respect for cultural or religious customs), benevolence (care for ingroup members), universalism (care for all people and nature), self-direction (independent thought and action), stimulation (excitement and novelty), hedonism (sensual gratification), achievement (personal success), and power (status or other forms of control). Scholars have demonstrated that these values are present across nearly all cultures, and predict a variety of behaviors, particularly when incorporated into a person's sense of self (Schwartz et al. 2010; Schwartz 2010; Verplanken and Holland 2002).

Finally, Moral Foundations Theory (MFT) posits that morality is based on five fundamental human intuitions that serve as neurological "foundations" on which morality can be built. These include concerns related to harm and care, fairness and reciprocity, loyalty to the ingroup, authority and respect, and purity and sanctity (Graham et al. 2011). MFT has gained notoriety in recent years for its ability to

characterize political divisions in the United States (Graham, Haidt, and Nosek 2009). Details of these measures are given below.

4.2 The Current Study

This research note addresses the need for a basic understanding of how individual moral differences map onto the socio-demographic landscape. The current treatment extends earlier work on at least three fronts. First, it uses measures of three fundamental dimensions of morality that have seen wide use in the social and behavioral sciences. Using three dimensions in the same study makes it easier to compare results, and allows us to see which socio-demographic characteristics have the strongest and/or most extensive links to morality. Second, this study includes a larger number of predictors than most earlier work, tapping race, gender, geography, family structure, religion, socio-economic status, age cohorts, and employment status. Finally, this study uses Bayesian model averaging (BMA), a methodological technique that better captures uncertainty in parameter estimates than traditional regression, allowing us to be more confident that observed relationships are real.

4.3 Methods

4.3.1 Data

Data come from two nationally representative, web-based surveys of the United States population, both collected by Knowledge Networks (KN).[2] As part of their data collection strategy, KN asks all respondents in their panels to answer a standard set of profile questions. All socio-demographic variables used in this study are taken from these profile data. The advantage of this is that question wording and response options are held constant across surveys, significantly reducing threats to validity. The primary survey comes from the Measuring Morality project, was collected in 2012, had a 61% response rate, and a final sample size of 1,519. The second survey was administered in 2008, had a response rate of 60.1%, and a final sample size of 1,001. For ease of reference, these two data sources will be referred to as sample 1 and sample 2, respectively. Listwise deletion of missing data left 1,483 cases in sample 1, and 878 in sample 2.[3] Descriptive statistics for both samples are given in Appendix G.

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[2] The KN sampling frame covers approximately 97% of US households. Details on sampling procedures (including information on how KN samples hard-to-reach populations) can be found at http://www.knowledgenetworks.com/knpanel/docs/knowledgePanel(R)-design-summary-description.pdf. Composite weights were used in all analyses; these were generated by KN to adjust for differential sampling probabilities, non-response, and sampling coverage problems.

[3] Multiple imputation (MI) is typically a better way of handling missing data than listwise deletion. However, in the present analyses missingness was almost entirely confined to the outcome variables, cases that von Hippel (2007) recommends using during imputation but removing prior to analyses. This means that most of the information gained through MI would be eliminated, making MI results comparable to those obtained using listwise deletion. Listwise deletion also greatly simplifies the model averaging techniques used, and facilitates replication.

4.3.2 Socio-Demographic Predictors

Socio-demographic variables were selected to represent the theoretically relevant divisions described above, and can be grouped into 8 categories. *Race* is captured with three dichotomous variables for blacks, Hispanics, and other/mixed races, with white as the reference category. *Gender* is captured by a single indicator, with females coded 1 and males 0. *Cohort* effects are given by a series of binary variables for the age ranges 25-34, 35-44, 45-54, 55-64, 65-74, and 75 and above, with those aged 18-24 as the reference category. *Socioeconomic status* is represented by income and education. Educational attainment is captured by three indicators: completed high school, completed some college, and graduated college, with those not having completed high school forming the reference category. Income is coded in 19 categories, ranging from "less than $5,000" to "$175,000 or more," and treated as continuous in analyses.[4] *Family* relationships are represented by two dichotomous variables for marital status: married, and divorced/separated, with all others serving as the reference category. *Geographic* differences are coded as binary variables using census regions, with West, South, and Midwest being compared to the Northeast. A single indicator is also included for whether or not respondents live in metropolitan areas. *Employment* status is likewise captured with a single variable, a dichotomous indicator of whether respondents are currently working. Finally, *religion* is captured by a series of mutually exclusive binary

[4] These categories are part of the original data received from KN.

variables, based on self-reported religious affiliation. Categories were adapted from the Steensland et al. (2000) typology, though where possible distinct denominations or other sub-categories were kept separate to maximize the probability of detecting meaningful differences (based on sample size). Categories include Baptist, mainline Protestant ("Methodist, Lutheran, Presbyterian, Episcopal"), Catholic, Pentecostal, Other Christian (including Mormons and those self-identifying as other Christians), and Other non-Christian (Jewish, Muslim, Hindu, Buddhist, and those self-identifying as other non-Christian). The reference category includes those who reported no religious affiliation.

4.3.3 Morality Variables

Eleven moral outcomes representing two dimensions of morality are measured in sample 1. I give short descriptions below, and full coding details in Appendix G. *Moral identity* records the extent to which respondents saw themselves as being caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, and kind, measured by level of agreement with a series of ten questions (1=completely disagree to 7=completely agree). A sample item is "Being someone who has these characteristics is an important part of who I am."

Values were measured using Schwartz's Portrait Values Questionnaire (PVQ), a widely validated instrument with sub-scales for each of the ten value domains (Davidov, Schmidt, et al. 2008). Respondents were asked to read statements and report how much the people described sounded like them. Options ranged from 1='Not like me

at all' to 6='Very much like me.' Sample items from each sub-scale are: *Conformity* (α = 0.66): It is important to me to always behave properly. I avoid doing anything people would say is wrong; *Tradition* (α = 0.47): Tradition is important to me. I try to follow the customs handed down by my religion and family; *Security* (α = 0.56): It is important to me to live in secure surroundings. I avoid anything that might endanger my safety; *Power* (α = 0.57): It is important to me to be rich. I want to have a lot of money and expensive things; *Achievement* (α = 0.76): It's very important to me to show my abilities. I want people to admire what I do; *Hedonism* (α = 0.73): Having a good time is important to me. I like to "spoil" myself; *Stimulation* (α = 0.72): I think it is important to do lots of different things in life. I always look for new things to try; *Self-direction* (α = 0.54): It is important to me to make my own decisions about what I do. I like to be free and not depend on others; *Universalism* (α = 0.66): I think it is important that every person in the world be treated equally. I believe everyone should have equal opportunities in life; *Benevolence* (α = 0.66): It is important to me to be loyal to my friends. I want to devote myself to people close to me. The mean of all items was subtracted from each sub-scale to adjust for scale response tendencies.

Sample 2 contains measures based on Moral Foundations Theory. In particular, it uses the 20-item version of the Moral Foundations Questionnaire (MFQ20), which includes subscales for each of the five moral foundations. Sample items from each subscale are given below. Respondents were asked to rate their level of agreement with

moral statements, using a scale of 0=Strongly disagree to 5=Strongly agree: *Care* (α = 0.51): "Compassion for those who are suffering is the most crucial virtue;" *Fairness* (α = 0.71): " When the government makes laws, the number one principle should be ensuring that everyone is treated fairly;" *Ingroup* (α = 0.51): "It is more important to be a team player than to express oneself;" *Authority* (α = 0.65): "Respect for authority is something all children need to learn;" *Purity* (α = 0.74): "I would call some acts wrong on the grounds that they are unnatural." Consistent with recommended practice, those scoring highly on a "catch" question were coded as missing.

4.3.4 Analytic Strategy

The simplest way to uncover connections between morality and socio-demographic characteristics is to regress morality measures on variables capturing race, gender, age, socio-economic status (SES), family structure, geography, employment status, and religion.

There are two potential concerns with this approach. First, it is possible that any relationships found might be unique to the sample used. At the conventional .05 level of significance, we would expect that 1 out of every 20 relationships would be statistically significant purely by chance. To address this problem, I used Bayesian Information Criterion (BIC) statistics to eliminate unnecessary predictors from each model. BIC statistics measure model fit to the data, but impose a penalty that is proportional to sample size for each variable in a model. This makes them more stringent tests of

"significance" than traditional p-values, and improves out-of-sample predictions (Raftery 1995).

This raises a second concern. Inherent in any model selection procedure is the potential for arbitrariness – an analyst can find a single best-fitting model, but it is often only marginally better than one or more alternative models that might have been selected. While these alternative models often yield substantively similar results, this is not always the case (see the example in Raftery 1995:120-124). One solution (and the one used here) is to use Bayesian model averaging (BMA) to average over all models that fall within a pre-specified range of the best-fitting model, weighting by their respective model probabilities. This reduces the uncertainty in estimates that arises from selecting just one model by explicitly accounting for all plausible specifications of a model (Raftery 1995).[5] A number of studies indicate that BMA provides better out-of-sample predictions than procedures that use a single best-fitting model (Hoeting et al. 1999; Raftery, Madigan, and Volinsky 1996); in the present context, this means that findings about morality are more likely to generalize to other samples.

All models presented below are BMA linear regressions with fully standardized coefficients for continuous predictors, and y-standardized coefficients for dichotomous predictors (i.e., a 1 unit increase in the predictor leads to a β standard deviation increase

[5] I used an uninformative prior distribution, and the "symmetric" Occam's Window suggested by Raftery, where I kept all models that were no more than 20 times less likely than the best fitting model (corresponding to a BIC difference of 6).

in the outcome). Categorical variables were always selected for inclusion or exclusion as a group to ensure that they could be interpreted in relation to a fixed reference category.

4.4 Results

Table 3 shows the results from BMA linear regressions of moral identity and the ten value dimensions on the set of socio-demographic predictors, and Table 4 presents the same analyses for the five MFQ-20 sub-scales. Moral constructs are listed along the top, and under each are three columns. The first two columns provide the model-weighted mean and standard deviation (SD) of each parameter's posterior distribution – substantively, these can be regarded as parameter estimates and standard errors. The third column gives the probability that each parameter is non-zero, given the models that were retained by the BMA procedure (labeled "p≠0"). For example, a 100% next to a variable suggests it was retained in all of the models used to predict a given outcome. Practically, this can be interpreted as the probability that adding the variable to the model improves its fit to the data (as judged by a BIC statistic). Stated another way, a variable's probability (third column) tells us *whether* a variable belongs in the model, while the mean and SD (first and second columns) give us information about *how* a variable relates to the outcome by defining the distribution of its coefficient.

Table 3: Linear Regression of Morality Variables on Socio-Demographic Characteristics (Sample 1)

Socio-demographic categories		Moral Identity			Conformity			Tradition			Benevolence		
		β	SD	p≠0	β	SD	p≠0	β	SD	p≠0	β	SD	p≠0
	(Intercept)	-0.71	(0.12)	100%	-0.56	(0.10)	100%	-0.70	(0.11)	100%	-0.43	(0.10)	100%
Race	Black	-	-	-	-	-	-	-	-	-	-	-	-
	Hispanic	-	-	-	-	-	-	-	-	-	-	-	-
	other/mixed	-	-	-	-	-	-	-	-	-	-	-	-
Gender	female	0.44	(0.06)	100%	-	-	-	0.02	(0.05)	17%	0.34	(0.06)	100%
Age Cohort	25-34	-	-	-	-	-	-	-	-	-	0.31	(0.12)	100%
	35-44	-	-	-	-	-	-	-	-	-	0.20	(0.12)	100%
	45-54	-	-	-	-	-	-	-	-	-	0.53	(0.12)	100%
	55-64	-	-	-	-	-	-	-	-	-	0.29	(0.12)	100%
	65-74	-	-	-	-	-	-	-	-	-	0.35	(0.13)	100%
	75 or above	-	-	-	-	-	-	-	-	-	0.55	(0.16)	100%
SES	high school	0.19	(0.10)	100%	-	-		-	-	-	-	-	-
	some college	0.42	(0.11)	100%	-	-		-	-	-	-	-	-
	BA or beyond	0.46	(0.11)	100%	-	-		-	-	-	-	-	-
	income	-	-	-	-	-	-	-0.01	(0.02)	10%	-	-	-
Family	divorced/ separated	-	-	-	0.12	(0.10)	100%	0.12	(0.10)	100%	-	-	-
	married	-	-	-	0.39	(0.07)	100%	0.31	(0.07)	100%	-	-	-
Geography	metro area	-	-	-	-	-	-	-	-	-	-	-	-
	Midwest	-	-	-	-	-	-	-	-	-	-	-	-
	South	-	-	-	-	-	-	-	-	-	-	-	-
	West	-	-	-	-	-	-	-	-	-	-	-	-
Employment	working	-0.02	(0.05)	15%	-0.07	(0.09)	45%	-0.12	(0.10)	67%	-0.18	(0.07)	100%
Religion	Baptist	0.34	(0.10)	100%	0.56	(0.10)	100%	0.96	(0.10)	100%	-	-	-
	Protestant	0.22	(0.10)	100%	0.43	(0.10)	100%	0.64	(0.10)	100%	-	-	-
	Catholic	0.08	(0.10)	100%	0.30	(0.09)	100%	0.70	(0.09)	100%	-	-	-
	Pentecostal	0.47	(0.18)	100%	0.55	(0.18)	100%	0.60	(0.18)	100%	-	-	-
	other Christian	0.25	(0.11)	100%	0.58	(0.11)	100%	0.63	(0.11)	100%	-	-	-
	other non-Christian	0.11	(0.16)	100%	-0.02	(0.15)	100%	0.20	(0.15)	100%	-	-	-
	# models averaged	2			2			6			1		

Socio-demographic categories		Universalism			Self-direction			Stimulation			Hedonism		
		β	SD	p≠0	β	SD	p≠0	β	SD	p≠0	β	SD	p≠0
	(Intercept)	-0.34	(0.11)	100%	0.24	(0.08)	100%	0.56	(0.12)	100%	0.75	(0.13)	100%
Race	Black	-	-	-	-	-	-	-	-	-	-	-	-
	Hispanic	-	-	-	-	-	-	-	-	-	-	-	-
	other/mixed	-	-	-	-	-	-	-	-	-	-	-	-
Gender	female	0.32	(0.06)	100%	-0.01	(0.04)	10%	-0.20	(0.06)	100%	-0.08	(0.09)	47%
Age Cohort	25-34	0.22	(0.11)	100%	-	-	-	-0.24	(0.12)	100%	-0.18	(0.13)	100%
	35-44	0.36	(0.12)	100%	-	-	-	-0.31	(0.13)	100%	-0.28	(0.13)	100%
	45-54	0.66	(0.12)	100%	-	-	-	-0.47	(0.13)	100%	-0.36	(0.14)	100%
	55-64	0.71	(0.12)	100%	-	-	-	-0.50	(0.12)	100%	-0.45	(0.13)	100%
	65-74	0.70	(0.13)	100%	-	-	-	-0.65	(0.14)	100%	-0.45	(0.15)	100%
	75 or above	0.67	(0.16)	100%	-	-	-	-0.63	(0.15)	100%	-0.57	(0.17)	100%
SES	high school	-	-	-	-	-	-	-0.08	(0.10)	100%	0.00	(0.03)	2%
	some college	-	-	-	-	-	-	0.16	(0.10)	100%	0.00	(0.03)	2%
	BA or beyond	-	-	-	-	-	-	0.20	(0.10)	100%	-0.01	(0.07)	2%
	income	-	-	-	-	-	-	-	-	-	-	-	-
Family	divorced/ separated	-	-	-	-	-	-	-0.06	(0.10)	100%	-0.10	(0.11)	98%
	married	-	-	-	-	-	-	-0.21	(0.07)	100%	-0.25	(0.08)	98%
Geography	metro area	-	-	-	-	-	-	-	-	-	-	-	-
	Midwest	-	-	-	-	-	-	-	-	-	-	-	-
	South	-	-	-	-	-	-	-	-	-	-	-	-
	West	-	-	-	-	-	-	-	-	-	-	-	-
Employment	working	-	-	-	-	-	-	-	-	-	0.03	(0.07)	22%
Religion	Baptist	-0.39	(0.10)	100%	-0.26	(0.10)	100%	-	-	-	-0.34	(0.11)	100%
	Protestant	-0.41	(0.10)	100%	-0.26	(0.10)	100%	-	-	-	-0.32	(0.11)	100%
	Catholic	-0.47	(0.09)	100%	-0.28	(0.10)	100%	-	-	-	-0.22	(0.10)	100%
	Pentecostal	-0.54	(0.18)	100%	-0.47	(0.19)	100%	-	-	-	-0.11	(0.19)	100%
	other Christian	-0.33	(0.11)	100%	-0.34	(0.11)	100%	-	-	-	-0.32	(0.11)	100%
	other non-Christian	-0.36	(0.15)	100%	-0.46	(0.16)	100%	-	-	-	0.09	(0.16)	100%
	# models averaged	1			2			1			5		

Socio-demographic categories		Achievement			Power			Security		
		β	SD	p≠0	β	SD	p≠0	β	SD	p≠0
	(Intercept)	0.60	(0.12)	100%	0.41	(0.13)	100%	-0.80	(0.12)	100%
Race	Black	-	-	-	-	-	-	-	-	-
	Hispanic	-	-	-	-	-	-	-	-	-
	other/mixed	-	-	-	-	-	-	-	-	-
Gender	female	-0.26	(0.06)	100%	-0.33	(0.06)	100%	0.26	(0.06)	100%
Age Cohort	25-34	-0.18	(0.12)	100%	-0.02	(0.12)	100%	0.18	(0.12)	100%
	35-44	-0.42	(0.12)	100%	-0.30	(0.13)	100%	0.43	(0.12)	100%
	45-54	-0.72	(0.12)	100%	-0.47	(0.13)	100%	0.39	(0.12)	100%
	55-64	-0.58	(0.12)	100%	-0.44	(0.12)	100%	0.55	(0.12)	100%
	65-74	-0.70	(0.13)	100%	-0.59	(0.13)	100%	0.72	(0.13)	100%
	75 or above	-0.62	(0.16)	100%	-0.67	(0.16)	100%	0.60	(0.16)	100%
SES	high school	-	-	-	-	-	-	-	-	-
	some college	-	-	-	-	-	-	-	-	-
	BA or beyond	-	-	-	-	-	-	-	-	-
	income	-	-	-	-	-	-	-0.14	(0.03)	100%
Family	divorced/separated	-	-	-	-	-	-	-	-	-
	married	-	-	-	-	-	-	-	-	-
Geography	metro area	-	-	-	-	-	-	0.01	(0.04)	6%
	Midwest	-	-	-	-	-	-	-	-	-
	South	-	-	-	-	-	-	-	-	-
	West	-	-	-	-	-	-	-	-	-
Employment	working	0.26	(0.07)	100%	0.20	(0.09)	89%	-0.01	(0.03)	7%
Religion	Baptist	-0.34	(0.10)	100%	-0.33	(0.10)	100%	0.46	(0.10)	100%
	Protestant	-0.12	(0.10)	100%	0.19	(0.10)	100%	0.19	(0.10)	100%
	Catholic	-0.02	(0.00)	100%	0.02	(0.10)	100%	0.33	(0.10)	100%
	Pentecostal	-0.11	(0.18)	100%	0.05	(0.18)	100%	0.14	(0.18)	100%
	other Christian	-0.32	(0.11)	100%	-0.10	(0.11)	100%	0.23	(0.11)	100%
	other non-Christian	0.07	(0.15)	100%	0.52	(0.15)	100%	0.02	(0.15)	100%
	# models averaged	1			2			3		

Note: β = standardized or semi-standardized (for dichotomous variables) estimates; SD = standard deviation of the estimate; "p≠0" = probability that the variable is not 0, (i.e. that it improves model fit)

Table 4: Linear Regression of Morality Variables on Socio-Demographic Characteristics (Sample 2)

		Harm			Fairness			Ingroup			Authority			Purity		
Socio-demographic categories		**β**	**SD**	**p≠0**	**β**	**SD**	**p≠0**	**β**	**SD**	**p≠0**	**β**	**SD**	**p≠0**	**β**	**SD**	**p≠0**
	(Intercept)	-0.08	(0.15)	100%	-0.37	(0.14)	100%	-0.30	(0.12)	100%	-0.49	(0.13)	100%	-0.64	(0.16)	100%
Race	Black	0.44	(0.13)	100%	-	-	-	-	-	-	-	-	-	-	-	-
	Hispanic	0.10	(0.12)	100%	-	-	-	-	-	-	-	-	-	-	-	-
	other/mixed	0.16	(0.17)	100%	-	-	-	-	-	-	-	-	-	-	-	-
Gender	female	0.45	(0.08)	100%	0.16	(0.13)	69%	-	-	-	-	-	-	0.21	(0.10)	89%
Age Cohort	25-34	-	-	-	0.18	(0.16)	100%	0.23	(0.15)	100%	0.42	(0.16)	100%	0.00	(0.15)	100%
	35-44	-	-	-	0.06	(0.16)	100%	0.08	(0.15)	100%	0.32	(0.16)	100%	-0.07	(0.15)	100%
	45-54	-	-	-	0.37	(0.16)	100%	0.33	(0.15)	100%	0.60	(0.16)	100%	0.15	(0.15)	100%
	55-64	-	-	-	0.46	(0.16)	100%	0.43	(0.16)	100%	0.44	(0.17)	100%	0.32	(0.15)	100%
	65-74	-	-	-	0.58	(0.19)	100%	0.77	(0.18)	100%	0.90	(0.19)	100%	0.65	(0.18)	100%
	75 or above	-	-	-	0.49	(0.20)	100%	0.78	(0.19)	100%	0.84	(0.20)	100%	0.74	(0.18)	100%
SES	high school	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	some college	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BA or beyond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Family	divorced/separated	-	-	-	-	-	-	-	-	-	-	-	-	0.01	(0.06)	5%
	married	-	-	-	-	-	-	-	-	-	-	-	-	0.01	(0.06)	5%
Geography	metro area	0.06	(0.11)	25%	-	-	-	-	-	-	-	-	-	0.02	(0.06)	9%
	Midwest	-0.15	(0.12)	100%	-	-	-	-	-	-	-	-	-	-	-	-
	South	-0.28	(0.11)	100%	-	-	-	-	-	-	-	-	-	-	-	-
	West	-0.43	(0.12)	100%	-	-	-	-	-	-	-	-	-	-	-	-
Employment	working	-	-	-	-	-	-	-	-	-	-	-	-	0.00	(0.03)	5%
Religion	Baptist	-	-	-	-	-	-	-	-	-	-	-	-	0.61	(0.13)	100%
	Protestant	-	-	-	-	-	-	-	-	-	-	-	-	0.29	(0.13)	100%
	Catholic	-	-	-	-	-	-	-	-	-	-	-	-	0.35	(0.13)	100%

Pentecostal	-	-	-		-	-	-		-	-	-		-	-	-	0.62 (0.23) 100%
other Christian	-	-	-		-	-	-		-	-	-		-	-	-	0.29 (0.14) 100%
other non-Christian	-	-	-		-	-	-		-	-	-		-	-	-	0.06 (0.19) 100%
# models averaged	2				2				1				1			5

Note: β = standardized or semi-standardized (for dichotomous variables) estimates; SD = standard deviation of the estimate; "p≠0" = probability that the variable is not 0, (i.e. that it improves model fit)

Tables 3 and 4 contain a great deal of detailed information, and I include them mainly for reference. To ease interpretation and highlight overarching patterns, I turn to Figure 9. Figure 9 is a "heat map" of the results shown in Tables 3 and 4, where darker coloring represents a greater probability that the indicated variable belongs in the model (taken from the "p≠0" columns). Following Raftery (1995), if a variable had at least a 50% probability of inclusion, I regarded this as "weak" evidence that it has a real relationship with the outcome. Similarly, I viewed a 75% probability or above as "positive" evidence, and a 95% or above as "strong" evidence. Of course, simply knowing that a variable belongs in the model does not tell us how it relates to the outcome – this information comes from the distribution of its estimate. In cases where estimates were at least twice as large as their standard deviations – that is, where the direction of the relationship was clear – I also included a plus or minus sign to indicate the direction of the observed relationship.[1]

[1] It is worth noting that although those variables with high probabilities of inclusion typically also have clear relationships with the outcome, the two do not map perfectly on to one another. For instance, categorical variables were separated into their constituent categories for analysis, yielding one estimate and SD for each category (except the reference category), but selection for inclusion occurred just once, for the variable as a whole. This means that certain variables (like religious affiliation or educational attainment) might be judged strongly predictive of an outcome as a whole even though some of their categories have estimated relationships that are indistinguishable from 0.

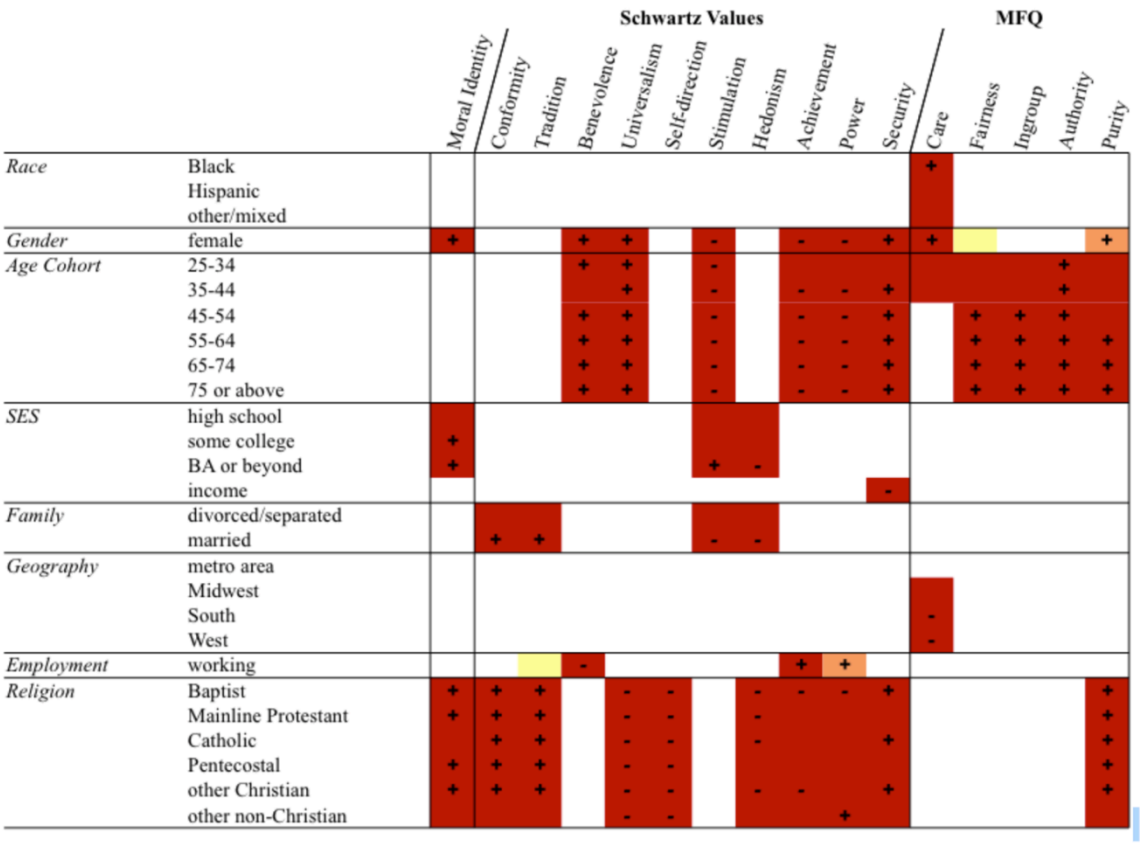

Figure 9: 'Heat Map'' of Evidence for Relationships Between Morality and Socio-demographic Characteristics, Including Direction of Relationship

Note: Plus and minus signs indicate the direction of any relationship that is at least 2 SD away from 0. Shading represents the level of evidence for the claim that a parameter is not equal to 0 (i.e., that it is ever retained in the model using the BIC statistic). Strength of evidence (i.e., $p(\beta)\neq 0$).

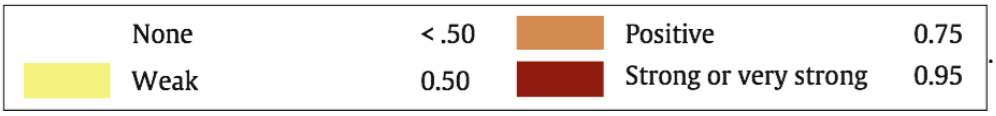

Figure 9 indicates that gender, age cohort, and religious identification each predict 10 of the 16 moral outcomes, more than any other socio-demographic variables.

In particular, women score more highly on moral identity than men, and place greater

emphasis on benevolence, universalism, security, care, and possibly purity, but less emphasis on stimulation, achievement, and power. The pattern of results is very similar for age cohorts, with older individuals placing more importance on benevolence, universalism, security, and purity concerns, and less on stimulation, achievement, and power. In addition, older cohorts place greater emphasis on fairness, ingroup loyalty, and authority than do younger cohorts.

The results for religion are more complicated. Compared to those with no religion, affiliation with most religious groups predicts higher moral identity, conformity, tradition, and purity concerns – the notable exceptions are non-Christians, who are not significantly different from those professing no religion in any of these categories. Religious affiliation also predicts lower value placed on universalism and self-direction, and for all groups except Pentecostals and non-Christians, lower hedonism as well. Specific religious traditions likewise predict various other moral values. Baptists and other Christians express less interest in achievement than the non-religious, and Baptists are likewise less interested in power. Additionally, Baptists, Catholics, and other Christians value security.

Moral outcomes also map onto other socio-demographic characteristics, but in a more selective fashion. Active employment seems to predict benevolence, achievement, and power, while marriage predicts greater conformity and tradition and less

stimulation and hedonism. Results also suggest that education matters, though only those with at least a four-year college degree are noticeably different from those who did not complete high school. These individuals report a higher moral identity, more concern with stimulation, and lower value placed on hedonism.

The patterns apparent in Figure 9 are also interesting in what they do *not* include. Noticeably absent are consistent associations with race, income, and geographic location. These analyses suggest blacks, Hispanics, and those of other or mixed races generally share the same moral concerns as whites (net of other factors), though blacks do score more highly on care concerns. Income also has surprisingly little to do with morality, predicting only lower concern about security.

4.5 Discussion

Scholars have claimed that moral boundaries can affect social, economic, and political outcomes (Lamont 2012), suggesting a need to understand moral differences, yet few have systematically examined the ways that morality might map onto the socio-demographic landscape. Such connections seem probable when we consider that life experiences – including morally formative experiences – vary systematically by social location. This study addresses the need for a basic description by linking 16 well-established measures of morality from three research traditions to a wide range of socio-demographic predictors, and by using Bayesian model averaging to reduce the risk of

finding non-generalizable relationships. Results indicate that gender, religious affiliation, birth cohort, and (to a lesser degree) education and marital status widely predict differences in morality.

The present study corroborates many of the findings from past work, but expands and strengthens these findings by simultaneously examining multiple moral constructs and using an identical set of social and demographic predictors to enhance comparability across models. In particular, both prior studies and the present results indicate that morality varies by gender, religion, and birth cohort, suggesting that these characteristics might be important general predictors of morality (i.e., their influence is not restricted to certain moral domains). Additionally, results for values replicate many of the relationships found by Longest and colleagues (2013) in their European sample, indicating that certain moral mappings might be independent of national context (particularly those for gender and age, c.f., Longest et al 2013:1513, 1520).

Of course, scholars care about moral differences (at least partially) for the same reason they care about cultural tastes – they can shape evaluative processes, and be used to generate or fortify group boundaries. With regard to stratification, boundaries that separate those high in status, power, and economic rewards from those lacking these resources are particularly important. Are the results of this study consistent with the claim that morality contributes to stratification? Somewhat surprisingly, findings reveal

few moral differences based on the traditional stratifying characteristics of race and class (though divisions along gender lines are manifold). At first glance, this suggests that morality might play a minor role in perpetuating social and economic stratification, but this conclusion is premature for two reasons. First, if those in power believe that certain racial groups and classes favor particular moral outlooks (even if it is not true), they might pre-emptively make moral distinctions and respond accordingly. Imputed morality can thus directly create distance between social groups. Stratification can also occur indirectly, as real moral differences are discovered through interpersonal interaction and generate (intentionally or otherwise) differential valuations that can affect friendship ties, access to social support, and so forth. When one interactant holds a position of power, moral divisions can also translate into differential access to information and opportunities. This process appears idiosyncratic – moral evaluations, after all, are made on a person-by-person basis – but can produce stratified results to the extent that members of social groups differ systematically from those in power on characteristics tied to moral variation (e.g., gender, age, religion). In these ways, moral differences can contribute to social and economic differences.

Work on the relationships between morality and socio-demographic characteristics could profitably be extended in several directions. Although the measures used in this study represent important dimensions of morality, they are not exhaustive,

and future work should examine other moral constructs that have received attention in the literature, such as moral relativism/absolutism, and deontological vs. utilitarian moral reasoning (Baker 2005; Greene et al. 2008; Hunter 1991). Researchers should also explore how characteristics might interact to create unique moral profiles. Lamont and colleagues (1996), for instance, found that women with and without college degrees differed in their attitudes towards sexuality and family relations, and work on the culture of honor suggests that it is particularly important for Southern white males (Cohen et al. 1996). If morality is tied to experiences as I have argued, unique moral profiles are likely to emerge whenever combinations of demographic characteristics identify a group that differs systematically in its practices, forms of socialization, and/or treatment by others. Given the challenges of finding significant multi-way interactions in most representative samples, detecting moral differences for members of rare demographic combinations may require targeted data collection methods such as survey oversampling or ethnographic fieldwork.

Work on the socio-demographic distribution of morality is an important precursor to understanding types of moral boundaries people are likely to draw and, by extension, whose morality "matters" for accessing socially and economically desirable positions. This study advances this line of inquiry both methodologically – by appropriately accounting for model-based uncertainty in estimates – and theoretically,

by linking a wide range of socio-demographic characteristics to several measures that are well established in the thriving, cross-disciplinary study of morality.

5. Conclusion

Cultural sociologists have provided tremendous insight into the processes of action, but this has come at the expense of a deeper understanding of the specific forms of culture that motivate behavior. This project has begun to fill this gap by showing how identities and values are important cultural elements that motivate many types of action, and that these motivations can help explain consistencies in behavior that crosscut different contexts.

In chapter 2 I argued that highly salient identities form a core self that is perpetually active, and that paired with the deep-seated motive to act in self-consistent ways this leads to regularities in behavior across situations. I noted that other forms of culture also matter: individuals who lack the cultural competencies to convincingly enact an identity in a given context will not be able to have their core self verified, no matter how motivated they are. I illustrated the plausibility of this model using Lareau's *Unequal Childhoods* and Wacquant's *Body and Soul*.

Chapter 3 highlighted values as another consequential form of culture. I argued that values are particularly attractive because they represent a near universally recognized continuum of motivations that are expressed through many types of behavior, across a wide range of social, cultural, and legal contexts. Consistent with chapter 2, this may be because a person's most important values are tied to the self and

therefore tap into powerful self-consistency motives. Furthermore, values are able to operate using fast, automatic cognitive processes. This means that they are easy to activate and can be effortlessly applied to behavior. It also makes it straightforward to integrate values into existing models of culture and action.

Chapter 4 set the stage for future work on culture and action, focusing in particular on moral culture. I demonstrated that moral foundations, moral identities, and values are unevenly distributed across the socio-demographic landscape, and that gender, age, and religious affiliation are particularly important predictors of moral culture. These findings help us to predict which types of moral motivations are likely to matter to different groups of people, which in turn can shape their behavior.

This project underscores the idea that culture matters for action. It matters because it includes motivations such as identities, values, and moral commitments, because it includes cultural skills and competencies that shape how motivations are expressed, and because it can be processed using the fast, automatic cognitive systems on which most behavior relies. Working out the interconnections among these elements will be a crucial task for researchers as they move forward in the study of culture and action.

Appendix A: Coding Details For Values Study

A.1 ESS Behavior Measures

Religion measures included variables recording how often respondents "attend religious services apart from special occasions" and "pray apart from at religious services, with options ranging from 1=Every day to 7=Never (reverse coded). *Social* variables include how often respondents reported taking part "in social activities compared to others of same age," with options ranging from 1=Much less than most to 5=Much more than most, and how often they "meet with friends, relatives or colleagues," with options ranging from 1=Never to 7=Every day. *Family* behaviors were a dichotomous indicator of having ever been divorced, and a composite measure (average) of the amount of time respondents typically spend on housework on both weekdays and weekends, where each measure was originally coded ranging from 1=None or almost none to 6=All or nearly all the time.

Prosocial variables included a dichotomous indicator of whether the respondent looks after others in the household, such as "small children or someone ill, disable, or elderly," and how often s/he gives "unpaid help to a family member or relative outside your household with childcare, other care, housework, or home maintenance," with responses ranging from 1=Never to 7=Every day. Respondents were also asked how often during the past 5 year they had performed various antisocial acts, from 1=Never to

5=5 times or more, with the mean of all acts used for analyses. Acts included keeping excess change returned by a shop assistant or waiter, paying cash with no receipt to avoid taxes, concealing faults on a product sold second-hand, misusing or altering a card to pretend eligibility for something, making an exaggerated or false insurance claim, offering a favor or bribe to a public official, and over-claiming or falsely claiming government benefits. *Political* behaviors included a dichotomous indicator of whether or not respondents voted in the last national election in their respective countries, and a count of political activities performed during the past 12 months, where activities included contacting a politician or government official, working in a political party or action group, working in another organization or association, wearing/displaying a campaign badge, signing a petition, lawfully demonstrating, and boycotting certain products. *Time use* variables assessed the amount of time respondents reported spending watching television, listening to the radio, reading the newspaper, or using the Internet, with response options ranging from 0=No time at all to 7=more than 3 hours (increments of 0.5 hours).

A.2 ESS and Online Survey Values Measures

Values were measured with the 21-item version of Schwartz's Portrait Values Questionnaire (PVQ) in both the ESS and the online samples, though the implementation in each was slightly different (Schwartz 2009). In the ESS, interviewers

asked respondents to listen to statements about "some people" and consider "how much each person is or is not like you." All statements were adapted to match the gender of the respondent. In the online survey, questions were self-administered and adapted to be gender neutral. In both cases response options ranged from 1= Very much like me to 6= Not like me at all to (reversed). Items used to form scales representing the 10 values are as follows, where wording is taken from the gender-neutral PVQ: *Conformity* – "I believe that people should do what they're told. I think people should follow rules at all times, even when no-one is watching;" "It is important to me to always behave properly. I avoid doing anything people would say is wrong;" *Tradition* – "It's important to me to be humble and modest and not to draw attention to myself;" "Tradition is important to me. I try to follow the customs handed down by my religion and family;" *Benevolence* – "It's very important to me to help the people around me. I want to care for their well-being;" "It is important to me to be loyal to my friends. I want to devote myself to people close to me;" *Universalism* – "I think it is important that every person in the world be treated equally. I believe everyone should have equal opportunities in life;" "It is important to me to listen to people who are different from me. Even when I disagree with them, I still want to understand them;" "I strongly believe that people should care for nature. Looking after the environment is important to me;" *Self-direction* – "Thinking up new ideas and being creative is important to me. I like to do things in my own

original way;" "It is important to me to make my own decisions about what I do. I like to be free and not depend on others;" *Stimulation* – "I think it is important to do lots of different things in life. I always look for new things to try;" "I look for adventure and like to take risks. I want to have an exciting life;" *Hedonism* – "Having a good time is important to me. I like to "spoil" myself;" "I seek every chance I can to have fun. It is important to me to do things that give me pleasure;" *Achievement* – "It's very important to me to show my abilities. I want people to admire what I do;" "Being very successful is important to me. I hope people will recognize my achievements;" *Power* – "It is important to me to be rich. I want to have a lot of money and expensive things;" "It is important to me to get respect from others. I want people to do what I say;" *Security* – "It is important to me to live in secure surroundings. I avoid anything that might endanger my safety;" "It is very important to me that the government ensures my safety against all threats. I want the state to be strong so it can defend its citizens." As is standard with the PVQ, all value scales were adjusted for response scale tendencies by subtracting the overall mean of all 21 items (Schwartz 2009). Alphas for the underlying value dimensions used in this paper are $\alpha_{ESS} = 0.67$ and $\alpha_{online} = 0.74$ for self-transcendence vs. self-enhancement, and $\alpha_{ESS} = 0.75$ for conservation vs. openness to change (ESS only).

A.3 Personal Freedom Scores for ESS Analyses

Data were obtained from the website of the Social Progress Imperative, which publishes a Social Progress Index (SPI) that contains nation-specific scores that measure a variety of non-economic features of a society.[1] Scores are from the year 2014. The personal freedom measure is the average of three components of the SPI, namely personal rights, personal freedom and choice, and tolerance and inclusion. The personal rights subscale measures political rights, freedom of speech, freedom of assembly/association, freedom of movement, and the extent of private property rights. The personal freedom and choice subscale measures freedom over life choices, freedom of religion, levels of modern slavery, human trafficking and child marriage, whether demands for contraception are satisfied, and levels of corruption. The tolerance and inclusion subscale measures the extent to which women are treated with respect, immigrants are tolerated, homosexuals are tolerated, religious differences are tolerated, minorities experience violence and discrimination, and the extent to which communities provide a safety net. Further information on the SPI can be obtained from the methodological report available here:

http://www.socialprogressimperative.org/publications.

[1] Data are available at http://www.socialprogressimperative.org/data/spi

Appendix B: Value Structure for Pooled European Social Survey Data (2nd wave)

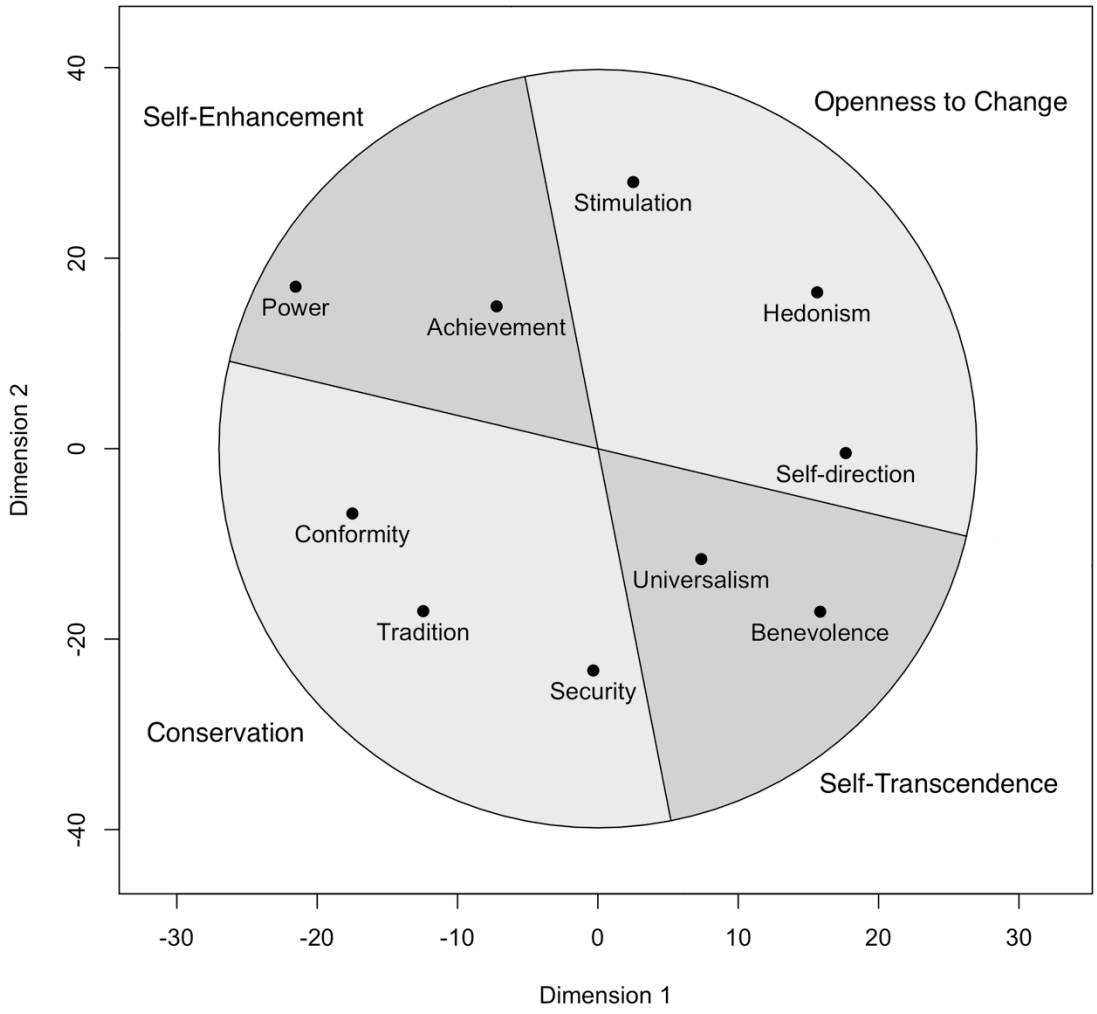

Figure 10: Value Structure for Pooled European Social Survey Data (2nd wave)

Note: Value positions generated using non-metric multidimensional scaling

Appendix C: Descriptive Statistics for Values Study

Table 5: Weighted Descriptive Statistics for Pooled ESS Data

	Mean	SD	Min	Max
Value Dimensions				
Self-transcendence	-0.03	0.99	-5.06	3.78
Conservation	0.05	1.00	-4.18	3.82
Outcomes				
Religion				
Service attendance	2.67	1.63	1	7
Prayer	3.82	2.52	1	7
Social				
Meet socially	4.90	1.61	1	7
Social activities	2.71	0.95	1	5
Family				
Ever divorced	0.08	---	0	1
Housework	3.55	1.82	1	6
Prosocial				
Care: household	0.25	---	0	1
Care: not household	2.30	1.74	1	7
Dishonest acts	1.53	1.09	1	6
Politics				
Voted	0.75	---	0	1
Activism	0.82	1.27	0	7
Time use				
TV	4.47	2.06	0	7
Radio	2.85	2.65	0	7
Newspaper	1.31	1.30	0	7
Internet	3.35	2.56	0	7
Controls Considered				
Married	0.57	---	0	1
Female	0.54	---	0	1
Children at home	0.45	---	0	1
Urban	0.32	---	0	1

Age	44.97	18.20	13	102
Education: upper secondary	0.35	---	0	1
Education: post secondary	0.25	---	0	1
Income	5.34	2.87	1	12
In denomination	0.68	---	0	1
In discriminated group	0.07	---	0	1
Discussion partner	0.87	---	0	1
Self-rated health	3.69	0.92	1	5
Health hampers activities	1.31	0.58	1	3
Taken advantage of	1.56	0.67	1	5
Religiosity	4.97	2.95	0	10
Generalized trust	4.48	1.94	0	10
Morality of others	4.72	2.01	0	10
Political orientation	5.13	2.31	0	10
Trust in science	2.58	1.07	1	5
Happiness	7.00	2.12	0	10

Note: N=47,537; Estimates from 40 imputed datasets; for the purposes of display (but not analysis), minimum and maximum values that exceeded the scale boundaries were recoded to reflect scale boundaries

Table 6: Unweighted Descriptive Statistics for Online Survey Data

	Means	SD	Min	Max
Self-transcendence	0.01	1.01	-3.17	3.17
Ticket giving				
< 5	0.35	---	0	1
5	0.38	---	0	1
> 5	0.26	---	0	1
High load condition	0.44	---	0	1
Controls Considered				
Age	38.40	14.46	18	79
Political orientation	0.11	1.61	-3	3
Female	0.50	---	0	1
Income	2.81	1.94	0	8
Income (others in HH)	2.95	2.21	0	8
Number in Household	2.93	1.43	1	8
City size				
Rural	0.14	---	0	1
<10K	0.13	---	0	1
10-49K	0.25	---	0	1
50-249K	0.24	---	0	1
250K or more	0.24	---	0	1
Religious affiliation				
Not religious		---		
Protestant	0.22	---	0	1
Catholic	0.25	---	0	1
Other	0.27	---	0	1
Religious service attendance	2.85	---	1	6
Race				
White	0.61	---	0	1
Black	0.12	---	0	1
Hispanic	0.15	---	0	1
Asian	0.08	---	0	1
Other	0.04	---	0	1
Education				
High school or less	0.23	---	0	1
Some college	0.31	---	0	1

Associates	0.11	---	0	1
Bachelors	0.23	---	0	1
Masters or higher	0.12	---	0	1
Married	0.47	---	0	1

Note: N=907; Estimates from 20 imputed datasets; for the purposes of display (but not analysis), minimum and maximum values that exceeded the scale boundaries were recoded to reflect scale boundaries

Appendix D: Propensity Score Models

D.1 Analyses Using Cross-National Data

Propensity score models were calculated separately for each nation. All models initially contained the same control variables: controls for nation of residence, gender, age, educational attainment, marital status, income, political orientation, belonging to a religious group, religiosity, belonging to a group that faces discrimination, generalized trust, views on the morality of others, perceptions of the efficacy of science, personal happiness, having anyone to discuss important matters with, self-rated health, health problems that hamper daily activities, the frequency with which respondents were economically taken advantage of in the past 5 years, having children living at home, and living in a city.

To increase the efficiency of final estimates non-predictive variables were excluded from the models based on the AIC criteria. For computational reasons, the data used for these models were obtained by averaging across the 40 imputed data sets. This provides accurate point estimates, but standard errors that are too small (because it does not account for between imputation variance). Practically, small standard errors may have occasionally led to the decision to retain more controls variables than was necessary, making the propensity score models conservative. Table D1 presents raw coefficients from propensity score models for the self-transcendence vs. self-

enhancement value dimension, and Table D2 for the conservation vs. openness to change value dimension. To conserve space, standard errors and p-values are not shown (but note that all variables shown improve model fit based on the AIC statistic).

Table 7: Propensity Score Models for Self-Transcendence vs. Self-Enhancement Value Dimension in Each Nation

	AT	BE	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HU	IE	IS	LU	NL	NO	PL	PT	SE	SI	SK	TR	UA
(Intercept)	-0.67	-0.87	-0.49	-1.03	-1.14	-1.23	0.37	0.26	-1.07	-0.82	-1.25	-0.31	-1.12	-0.66	-1.16	-1.52	-1.17	-0.53	-0.27	-0.28	-0.37	-1.34	-0.91	-0.04	-0.10
Conservation	0.10	0.14	0.11	0.48	0.17	0.12	0.40	0.18	0.28	0.09	0.22	0.47	0.33	0.27	0.08	0.16	0.16	0.18	0.34	0.41	0.09	0.26	0.53	0.34	0.57
Female	0.33	0.36	0.26	0.19	0.33	0.28	0.22	0.22	0.45	0.39	0.38	---	0.35	0.12	0.44	0.40	0.40	0.26	0.32	0.08	0.33	0.30	0.14	0.25	-0.06
Age	0.01	0.01	0.01	0.00	0.01	0.01	0.00	---	0.01	0.01	0.01	---	---	0.01	0.01	0.01	0.01	0.01	0.00	---	0.01	0.00	0.00	0.00	---
Education: upper secondary	0.13	0.14	0.07	---	---	-0.14	0.09	---	0.08	0.14	0.19	0.12	0.13	0.08	---	0.15	-0.08	---	0.10	---	---	---	0.10	0.22	0.18
Education: post secondary	0.30	0.27	---	---	---	-0.18	0.13	0.20	---	0.21	0.12	0.09	---	0.15	---	0.12	-0.11	---	0.16	---	---	---	---	0.46	0.10
Married	0.11	---	---	-0.04	---	---	---	---	---	---	---	-0.06	---	---	---	---	---	-0.09	---	-0.22	---	---	-0.14	---	-0.10
Children at home	0.10	0.13	0.06	---	---	0.08	---	---	0.11	---	---	---	0.15	-0.09	0.20	---	---	---	---	---	0.16	---	0.11	---	---
Political orientation	-0.08	-0.07	-0.13	-0.02	-0.10	-0.08	---	-0.06	-0.08	-0.07	-0.07	-0.03	-0.05	-0.05	-0.07	-0.06	-0.09	-0.10	---	---	-0.10	---	---	-0.01	-0.02
Morality of others	0.07	0.05	0.05	0.04	0.05	0.04	0.03	0.04	0.03	0.03	0.04	0.02	0.05	0.05	0.07	-0.02	0.05	0.07	0.04	---	0.05	0.05	0.03	---	0.05
Generalized trust	-0.03	---	-0.05	-0.04	-0.02	---	-0.04	---	---	---	-0.03	-0.02	---	-0.06	---	---	-0.05	-0.05	---	0.04	---	-0.03	---	-0.04	-0.03
Efficacy of science	0.10	---	0.04	0.04	0.04	0.05	-0.26	---	0.03	---	0.04	0.10	0.07	0.11	-0.08	---	---	---	-0.07	---	---	0.07	---	-0.04	-0.06
Belong to denomination	0.08	-0.11	-0.16	0.15	---	---	---	-0.11	-0.19	---	---	0.32	---	---	---	-0.10	-0.08	---	---	-0.32	---	---	-0.12	---	-0.08
Happiness	0.04	---	0.05	0.04	0.06	0.06	0.03	0.08	0.03	0.05	0.03	0.02	0.02	0.04	0.05	0.04	0.07	0.05	0.03	0.03	0.04	0.07	0.04	0.01	0.02
Income	-0.11	-0.04	-0.03	-0.05	-0.03	-0.05	-0.07	-0.08	-0.03	-0.02	-0.03	---	-0.06	-0.04	-0.06	0.04	---	-0.02	-0.05	0.08	-0.06	0.04	0.03	---	-0.10
Religiosity	0.02	---	0.05	---	0.03	0.03	---	---	0.03	---	---	-0.03	0.02	---	0.02	---	0.04	0.02	-0.03	---	0.03	-0.03	0.02	---	0.04
Health hampers activities	0.11	0.13	0.06	0.11	0.09	0.07	---	-0.16	0.07	---	0.10	---	0.17	---	0.15	0.12	---	---	---	---	---	---	---	---	0.07
Discrimination group	---	0.19	---	---	---	---	-0.30	0.34	---	0.28	0.12	0.18	---	0.12	---	---	---	---	---	0.55	---	---	---	---	0.35
Self-rated health	---	0.06	---	0.10	---	---	---	-0.10	0.09	---	0.08	-0.06	0.07	---	---	0.07	---	---	-0.05	-0.12	-0.05	---	---	---	---
Urban	---	---	-0.10	-0.16	---	-0.13	-0.21	---	---	---	-0.09	-0.17	0.16	-0.08	---	---	-0.10	---	0.13	0.24	---	---	---	---	0.12
Times cheated	---	---	---	-0.04	0.13	---	-0.05	0.08	---	---	---	0.20	0.06	-0.07	---	---	---	---	0.09	0.12	---	0.07	-0.05	-0.08	-0.04
Discussion partner	---	---	---	0.18	---	0.17	---	---	0.18	---	0.14	0.19	---	0.22	---	0.20	0.15	---	---	0.14	---	---	0.17	0.13	0.08

Table 8: Propensity Score Models for Conservation vs. Openness to Change Value Dimension in Each Nation

	AT	BE	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HU	IE	IS	LU	NL	NO	PL	PT	SE	SI	SK	TR	UA
(Intercept)	-0.49	-0.49	0.62	0.50	-0.12	0.05	-0.30	0.02	-0.61	-0.88	-0.12	-0.42	-0.19	-1.10	0.27	-0.28	0.41	-0.52	-0.65	-0.35	0.02	-0.71	-0.33	-1.34	-0.24
Self-transcendence	0.08	0.11	0.08	0.42	0.15	0.11	0.33	0.12	0.24	0.07	0.20	0.33	0.23	0.24	0.10	0.12	0.13	0.16	0.26	0.28	0.11	0.17	0.39	0.28	0.49
Female	0.09	---	0.06	0.16	0.12	0.09	0.12	---	---	0.18	---	0.15	---	0.07	---	---	---	0.13	0.16	0.19	0.08	0.08	0.18	---	0.16
Age	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.01
Education: upper secondary	-0.06	-0.10	-0.13	---	-0.16	-0.15	---	-0.15	---	-0.08	-0.12	-0.09	-0.20	-0.08	-0.21	---	-0.15	---	---	-0.22	-0.13	---	-0.16	-0.28	---
Education: post secondary	-0.24	-0.20	-0.22	-0.17	-0.31	-0.42	-0.15	-0.17	-0.12	-0.22	---	-0.19	-0.25	-0.19	-0.50	-0.23	-0.23	-0.19	-0.09	-0.26	-0.46	-0.12	-0.18	-0.37	-0.13
Married	0.22	0.22	0.26	0.13	0.23	0.21	0.16	0.21	0.25	0.32	0.30	0.14	0.21	0.23	0.30	0.32	0.20	0.18	0.11	0.19	0.17	0.07	0.16	---	0.17
Children at home	---	---	0.15	0.08	0.17	0.08	0.12	---	0.10	---	0.16	0.11	0.19	---	---	---	0.12	0.07	0.13	0.09	---	0.16	0.09	0.21	0.06
Political orientation	---	0.03	0.05	-0.02	0.04	0.05	-0.04	---	0.02	0.04	0.04	-0.02	0.04	0.02	---	0.04	0.03	---	---	0.06	---	0.02	-0.02	0.03	-0.04
Morality of others	-0.06	-0.03	-0.08	-0.03	-0.03	-0.02	---	-0.04	---	-0.02	-0.02	0.03	-0.06	-0.03	-0.05	-0.05	-0.03	-0.04	-0.04	-0.06	-0.06	-0.03	-0.02	0.04	-0.02
Generalized trust	0.04	---	0.04	0.01	0.09	0.07	0.03	0.04	0.04	0.03	---	0.04	0.09	0.06	0.08	0.06	---	0.06	0.02	---	0.08	0.03	---	---	0.05
Efficacy of science	-0.05	---	-0.09	-0.03	-0.02	---	0.08	0.04	-0.04	-0.03	-0.06	---	-0.04	-0.03	-0.12	-0.06	-0.07	-0.04	---	---	---	---	0.04	---	---
Belong to denomination	0.14	0.16	0.32	0.09	0.26	0.22	0.11	0.11	0.15	0.15	0.20	0.20	0.11	0.22	---	0.28	0.30	0.15	0.11	0.25	0.19	0.35	0.12	---	0.09
Happiness	---	---	---	-0.03	-0.05	-0.03	-0.04	-0.03	---	-0.02	-0.03	-0.06	-0.05	-0.02	---	---	-0.04	-0.02	-0.02	-0.03	-0.05	---	-0.05	---	---
Income	0.02	-0.02	-0.04	---	-0.05	-0.03	-0.03	-0.04	-0.02	---	-0.02	-0.03	-0.04	-0.03	0.06	-0.03	-0.02	---	---	-0.06	---	-0.09	---	---	-0.06
Religiosity	0.05	0.05	0.03	0.01	0.01	0.02	0.02	0.06	0.04	0.03	0.04	0.05	0.02	0.04	0.03	0.04	0.02	0.04	0.08	0.03	0.01	---	0.03	0.02	0.02
Health hampers activities	---	---	---	-0.08	---	---	0.05	---	---	---	---	---	---	0.06	---	---	---	---	-0.06	---	---	0.08	---	0.19	---
Discrimination group	---	-0.16	---	---	0.19	-0.27	0.19	-0.17	-0.18	-0.14	-0.22	---	---	-0.10	---	0.17	---	-0.18	---	-0.43	-0.16	---	---	---	---
Self-rated health	-0.10	-0.07	-0.15	-0.13	-0.11	-0.11	-0.07	-0.12	-0.05	-0.09	-0.05	-0.07	-0.11	---	-0.13	-0.11	-0.07	-0.08	-0.11	-0.05	-0.05	---	-0.06	---	-0.09
Urban	---	---	---	-0.05	---	---	---	-0.18	---	---	0.10	0.17	---	0.11	-0.20	-0.19	---	---	-0.12	---	-0.12	---	-0.07	---	---
Times cheated	---	-0.07	-0.16	-0.08	-0.15	-0.14	-0.05	-0.15	-0.16	---	-0.11	-0.12	-0.06	---	-0.12	---	-0.13	-0.10	-0.06	-0.07	-0.15	-0.12	-0.04	---	---
Discussion partner	-0.27	-0.16	-0.35	-0.13	---	-0.21	-0.12	---	-0.37	---	-0.20	-0.22	---	-0.14	-0.42	---	-0.16	---	-0.10	-0.10	-0.12	-0.16	-0.10	---	-0.16

D.2 Analyses Using Real-Time Decision Data

Table 9: Propensity Score Model for Self-Transcendence vs. Self-Enhancement Value Dimension

	Estimate		Joint F-test	
Intercept	-1.34			
Female	0.27	***		
Age	0.03	***		
City size (ref=rural)			2.78 (4,996)	*
<10K	0.29			
10-49K	0.44	†		
50-249K	0.25			
250K or more	-0.28			
Race (ref=White)			6.38 (4,996)	***
Black	-0.47	**		
Hispanic	-0.05			
Asian	-0.51	*		
Other	0.87	**		
Number in household	0.07	*		
Religious affiliation (ref=not religious)			4.76 (3,996)	**
Protestant	0.85	**		
Catholic	0.19			
Other	0.58	**		
Religious service attendance	-0.13			
Religious service attendance^2	0.03	*		
Income (personal)	0.00			
Income2 (others in household)	-0.02			
Political orientation	0.07	***		
Interaction Terms				
Income2 X			3.53 (4,996)	**
Black	0.10	*		
Hispanic	0.04			
Asian	0.04			
Other	-0.19	**		
Age X			3.35 (3,996)	*
Protestant	-0.02	**		
Catholic	-0.01			
Other	-0.01	*		
Age X			2.63 (4,996)	*

<10K	0.00	
10-49K	-0.01	
50-249K	0.00	
250K or more	0.01	†
Income X Number in HH	-0.02	†

Appendix E: Details on Value Estimates, ESS Analyses

The first step in determining the extensity of value influence is to estimate the effects of values on behaviors in each of the 25 nations. Each behavioral outcome was regressed on *self-transcendence* and *conservation* separately in each nation, with the type of regression adapted to fit the scale of the dependent variable: ordinary least squares regression was used for continuous or near-continuous outcomes, proportional odds logistic regression for ordered categorical outcomes (5 or fewer categories), logistic regression for dichotomous responses, and negative binomial regression for counts. All models used cluster robust standard errors (with clusters defined by propensity score strata) to correct the biased standard errors introduced by using mean-deviated variables, and a design weight to adjust for unequal probabilities of selection within each country.[1] Table E1 presents the estimates from these analyses, along with the extensity measures derived from them. Data for Figure 3 in the main text come from the rightmost column, labeled "% outcomes $p < .05$", and data for Figure 4 from the row labeled "% nations $p < .05$".

[1] Allison (2009) uses multilevel models to correct the standard errors when using mean-deviated variables. However, preliminary data checks revealed that the single level models with cluster robust standard errors used here (with clusters defined by strata) yield very similar results.

Table 10: Value Estimates by Behavioral Outcome and National Context

	Service attendance		Prayer		Meet socially		Social activities		Ever divorced		Housework		Care: household		Care: not household		Dishonest acts		Voted		Activism[a]		TV		Radio		Newspaper		Internet		% outcomes
	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	ST	C	p <. 05
Austria	0.04	**0.07**	0.01	0.02	**0.06**	**-0.18**	-0.05	**-0.30**	-0.05	-0.15	0.03	**0.08**	**0.08**	**0.07**	**0.13**	-0.02	**-0.07**	-0.01	0.02	**-0.15**	**0.13**	**-0.24**	**-0.09**	0.02	0.00	0.00	-0.04	-0.04	-0.03	**-0.13**	0.73
Belgium	0.03	0.02	**0.08**	0.02	**0.06**	**-0.10**	**0.11**	**-0.23**	0.01	**-0.18**	**0.10**	0.03	0.01	-0.01	**0.15**	**-0.07**	**-0.06**	0.00	0.08	0.10	**0.16**	**-0.32**	-0.02	0.03	0.01	-0.05	0.02	-0.02	0.01	**-0.10**	0.60
Switzerland	0.00	**0.09**	0.03	0.00	**0.08**	**-0.12**	0.07	**-0.16**	0.05	**-0.23**	0.04	0.05	0.03	0.05	**0.08**	-0.01	**-0.07**	**-0.07**	-0.01	-0.05	**0.18**	**-0.22**	-0.02	**0.09**	-0.03	-0.02	-0.01	-0.04	-0.03	**-0.12**	0.60
Czech Republic	-0.05	0.05	0.00	0.01	**0.06**	**-0.16**	0.05	**-0.19**	0.08	-0.12	0.04	0.04	0.07	0.05	**0.18**	**-0.07**	**-0.12**	**-0.08**	**0.12**	0.01	**0.15**	**-0.15**	**-0.08**	0.06	0.06	**-0.07**	0.04	-0.03	-0.02	**-0.08**	0.60
Germany	-0.03	**0.06**	0.02	0.03	**0.09**	**-0.18**	-0.02	**-0.20**	0.02	**-0.15**	**0.08**	0.02	0.06	-0.03	**0.14**	0.00	**-0.08**	-0.02	**0.08**	-0.07	**0.18**	**-0.22**	-0.04	**0.10**	0.04	**-0.05**	0.01	**-0.05**	0.03	**-0.08**	0.87
Denmark	0.00	0.03	-0.02	**0.07**	**0.09**	**-0.16**	**0.10**	**-0.21**	0.06	**-0.25**	0.06	0.02	0.02	-0.03	**0.11**	**-0.07**	0.01	0.05	0.03	-0.06	0.07	**-0.18**	0.02	**0.07**	0.02	-0.06	0.04	-0.02	-0.03	**-0.12**	0.53
Estonia	0.03	0.03	0.00	0.04	0.05	**-0.14**	-0.02	**-0.24**	**0.12**	**-0.21**	0.00	-0.02	0.07	0.05	0.06	**-0.06**	**-0.06**	**0.17**	0.04	-0.08	**0.17**	**-0.35**	0.02	**-0.06**	**0.08**	**-0.07**	**0.11**	**-0.10**	-0.04	-0.02	0.60
Spain	-0.02	0.02	0.01	**0.07**	**0.06**	**-0.08**	0.05	**-0.14**	-0.18	-0.14	0.05	0.01	0.02	0.08	0.04	**-0.07**	0.00	-0.07	-0.01	0.03	**0.15**	**-0.10**	**-0.09**	**0.09**	0.03	-0.02	0.01	**-0.08**	**0.12**	-0.04	0.53
Finland	0.02	**0.09**	0.01	0.06	**0.08**	**-0.10**	0.02	**-0.17**	0.10	**-0.27**	**0.06**	-0.01	0.01	0.01	**0.07**	-0.02	**-0.07**	0.02	**-0.09**	0.04	**0.08**	**-0.13**	**-0.06**	0.03	**0.07**	-0.03	-0.01	-0.05	-0.02	**-0.09**	0.80
France	0.04	0.04	**0.06**	0.05	**0.09**	**-0.12**	**0.07**	**-0.22**	0.04	-0.04	0.02	**0.08**	**0.07**	0.06	**0.12**	-0.03	-0.03	**-0.13**	0.05	-0.09	**0.23**	**-0.20**	-0.03	**0.08**	0.01	**-0.09**	-0.04	**-0.09**	-0.04	-0.06	0.73
United Kingdom	0.04	**0.07**	0.06	0.02	0.04	**-0.18**	-0.04	**-0.21**	0.05	-0.11	**0.12**	0.03	0.05	0.00	**0.11**	-0.03	**-0.09**	**-0.17**	0.05	-0.02	**0.31**	**-0.25**	**-0.07**	0.02	**0.08**	-0.05	-0.02	0.02	-0.01	**-0.14**	0.67
Greece	0.01	0.04	0.03	-0.06	-0.02	**-0.18**	-0.02	**-0.17**	0.12	**-0.35**	0.01	0.05	**0.07**	**0.11**	**0.12**	-0.03	**-0.10**	0.03	**0.20**	-0.01	0.12	**-0.29**	0.00	0.06	0.03	**-0.12**	0.01	**-0.08**	-0.03	0.05	0.67
Hungary	-0.01	0.09	0.06	0.03	0.01	**-0.15**	0.02	**-0.19**	0.00	-0.10	**0.10**	0.07	0.02	0.06	-0.02	0.08	0.04	-0.01	0.07	0.05	-0.05	-0.06	0.00	0.05	0.04	0.07	0.01	-0.01	0.03	**-0.13**	0.27
Ireland	0.01	**0.09**	0.02	**0.11**	0.04	**-0.17**	0.05	**-0.22**	0.04	-0.06	-0.01	**0.09**	0.03	0.10	**0.10**	0.01	**-0.09**	-0.05	0.08	0.00	0.11	**-0.23**	-0.06	0.01	0.08	-0.06	**-0.09**	-0.07	0.01	**-0.12**	0.67
Iceland	0.01	**0.15**	0.02	0.07	0.05	-0.10	**0.18**	-0.10	0.20	**-0.24**	0.02	-0.01	-0.01	**0.15**	**0.10**	-0.05	-0.12	-0.08	0.03	-0.02	0.01	**-0.17**	-0.06	**0.08**	-0.06	0.07	-0.03	0.03	-0.03	**-0.15**	0.53
Luxembourg	-0.04	0.08	0.03	0.03	0.03	**-0.09**	0.06	-0.06	0.01	-0.08	**0.09**	-0.02	**0.19**	0.01	**0.11**	**-0.11**	**-0.11**	-0.03	0.07	0.02	0.05	**-0.14**	0.02	0.02	0.02	0.02	0.03	-0.02	-0.02	**-0.10**	0.47
Netherlands	0.04	**0.08**	0.03	0.02	**0.10**	**-0.09**	**0.07**	**-0.17**	-0.02	**-0.28**	**0.11**	0.00	0.06	0.00	**0.11**	**-0.10**	-0.05	-0.06	0.05	0.01	**0.11**	**-0.19**	**-0.07**	0.02	0.02	**-0.06**	0.02	-0.02	-0.04	**-0.11**	0.67
Norway	0.03	0.05	**0.05**	0.03	**0.06**	**-0.08**	0.04	**-0.18**	-0.06	**-0.23**	0.03	0.01	-0.06	0.04	0.03	0.00	**-0.06**	-0.05	-0.03	-0.02	0.05	**-0.16**	-0.01	**0.11**	0.01	0.03	0.03	-0.02	-0.03	**-0.10**	0.53
Poland	-0.02	**0.10**	0.04	0.06	0.01	**-0.15**	-0.02	**-0.22**	-0.11	**-0.22**	0.03	0.05	**0.10**	-0.03	**0.08**	-0.02	-0.02	-0.02	0.03	-0.03	**0.23**	**-0.43**	-0.01	-0.04	-0.02	**-0.10**	**0.09**	**-0.08**	0.02	-0.08	0.60
Portugal	-0.02	0.04	0.05	**0.08**	**0.06**	-0.05	0.01	-0.01	0.08	-0.13	-0.02	**0.08**	0.04	**0.16**	0.07	-0.05	-0.01	**0.14**	0.02	0.07	**0.23**	-0.23	0.01	0.04	0.01	**-0.10**	-0.04	-0.03	0.01	0.09	0.47
Sweden	0.05	0.04	**0.07**	-0.03	0.03	**-0.08**	0.05	**-0.21**	0.00	-0.13	**0.06**	0.00	-0.04	0.06	**0.05**	0.05	**-0.07**	**-0.07**	-0.10	0.06	**0.06**	**-0.14**	**-0.06**	**0.13**	0.05	-0.02	0.01	-0.02	**-0.08**	**-0.09**	0.60
Slovenia	0.02	0.06	0.02	0.01	0.03	**-0.11**	0.06	**-0.21**	0.04	0.09	**0.11**	-0.02	0.07	0.03	**0.16**	-0.06	-0.06	0.03	0.00	**0.08**	**0.28**	**-0.40**	-0.02	-0.04	0.03	-0.07	**0.06**	-0.06	0.04	**-0.12**	0.53
Slovak Republic	0.02	**0.10**	0.05	0.05	0.02	**-0.13**	0.03	**-0.13**	**0.23**	**-0.37**	**0.14**	-0.02	**0.08**	0.04	**0.15**	**-0.11**	-0.06	0.02	0.05	0.01	**0.16**	-0.15	0.01	0.05	**0.09**	-0.04	-0.02	-0.07	0.04	-0.07	0.60
Turkey	0.02	0.05	0.01	0.04	**0.05**	-0.04	0.04	**-0.13**	**0.19**	-0.18	-0.01	**0.07**	0.02	**0.16**	0.05	0.01	-0.01	0.00	0.00	0.02	0.12	-0.14	0.04	0.00	0.02	0.03	0.03	**-0.06**	**0.06**	**-0.10**	0.47
Ukraine	-0.06	0.04	0.01	0.02	0.05	-0.07	0.05	**-0.14**	-0.01	**0.14**	0.02	0.01	0.07	0.01	0.08	0.04	**-0.20**	0.05	-0.06	0.12	0.00	-0.04	0.00	0.01	**0.09**	**-0.09**	-0.01	-0.02	**-0.15**	-0.01	0.33
% nations p < .05	0.40		0.32		0.92		0.92		0.56		0.60		0.36		0.80		0.64		0.24		0.88		0.56		0.48		0.36		0.76		
regression type	OLS		OLS		OLS		ordered logit		logit		OLS		logit		OLS		OLS		logit		neg. binomial		OLS		OLS		OLS		OLS		
N used	47320		46852		47345		46488		30097		46316		47292		46806		47204		43480		46664		47397		47334		47400		30071		

Note: bold = $p < .05$; all coefficients except those are for activism are fully standardized; [a] unstandardized regression coefficient

Appendix F: Magnitude of Value Estimates Compared to Other Predictors, ESS Analyses

Analyses using the ESS data adjust for potential confounds using a hybrid propensity score/fixed effects method, which means that controls do not need to be included in regression models. This makes it difficult to gauge the substantive magnitude of value coefficients relative to other predictors. To make comparisons possible, I regressed each behavior measure on the set of all control variables within each country. This generated 375 models (15 behaviors x 25 nations). To make comparisons to value coefficients more tractable, I standardized statistically significant predictors (and y-standardized dichotomous variables) and averaged their absolute values across countries.[1] For each outcome, I performed the same averaging procedure on all statistically significant value estimates (taken from Table E1 in Appendix E). This reduces the nuance of the results, but still provides an overall sense of the magnitude of estimates. The averaged estimates for both values and controls are shown in Table F1.

Values compare favorably to control variables in most instances. For instance, a 1 standard deviation (SD) change in conservation has as strong a relationship to religious service attendance as being married and a stronger relationship than having children at home, and a slightly stronger relationship to prayer than being married or a 1 SD change in the level of trust in science. Conservation also predicts changes in meeting socially

[1] As before, estimates for activism were not standardized because standardization for negative binomial models has not been developed.

with friends or family and engaging in social activities (compared to others of the same age) that are as large or larger than having children at home. Compared to being female, conservation is a stronger predictor of having ever been divorced, about two-thirds as strong in predicting caring for members of one's own household, and 85% as strong in predicting dishonest acts. Conservation is just under half as strong as belonging to a group that is discriminated against in predicting political activism, stronger than being married in predicting time spent watching television, and almost as powerful as residence in an urban area in predicting Internet use. Similarly, a 1 SD change in self-transcendence is almost as strong a predictor of caring for others outside of the household as is being female, and about half as strong in predicting voting as having completed upper secondary education.

Table 11: Pooled Standardized Coefficients from Regression of Various Behaviors on Controls

	Service attendance	Prayer	Meet socially	Social activities	Ever divorced	Housework	Care: household	Care: not household	Dishonest acts	Voted	Activism[a]	TV	Radio	Newspaper	Internet
Self-transcendence	---	0.07	0.07	0.10	0.18	0.10	0.10	0.11	0.09	0.12	0.17	0.08	0.08	0.09	0.10
Conservation	0.09	0.08	0.13	0.19	0.24	0.08	0.13	0.08	0.12	0.11	0.23	0.09	0.08	0.08	0.11
Female	0.16	0.21	0.14	0.14	0.20	0.88	0.20	0.13	0.14	0.19	0.37	0.11	0.12	0.18	0.21
Age	0.11	0.11	0.20	0.10	0.20	0.22	0.26	0.09	0.12	0.33	0.01	0.13	0.14	0.25	0.33
Education: upper secondary	0.08	0.06	0.09	0.07	0.11	0.15	0.09	0.11	0.13	0.23	0.44	0.10	0.10	0.13	0.17
Education: post secondary	0.10	0.06	0.09	0.09	---	0.19	0.08	0.11	0.15	0.27	0.68	0.19	0.13	0.13	0.35
Married	0.09	0.06	0.12	0.08	0.60	0.20	0.14	0.09	0.09	0.14	0.30	0.07	0.07	0.07	0.12
Children at home	0.06	0.05	0.11	0.13	0.15	0.18	0.47	0.07	0.09	0.11	0.30	0.10	0.09	0.09	0.07
Urban	0.09	0.07	0.08	0.07	0.24	0.08	0.11	0.12	0.11	0.05	0.23	0.08	0.11	0.08	0.13
Political orientation	0.08	0.06	0.07	0.06	0.20	0.05	0.06	0.07	0.05	0.07	0.09	0.09	0.06	0.07	0.09
Morality of others	0.06	0.06	0.08	0.09	0.19	---	0.10	0.05	0.07	0.09	0.08	0.07	0.06	0.06	0.08
Generalized trust	0.06	0.06	0.07	0.06	0.14	0.06	0.06	0.07	0.07	0.15	0.11	0.08	0.07	0.08	0.10
Trust in science	0.05	0.05	0.04	0.04	0.15	0.04	---	0.06	0.07	0.07	0.11	0.07	0.06	0.07	---
In demonination	0.25	0.19	0.14	0.03	0.20	0.06	0.05	0.09	0.07	0.12	0.42	0.10	0.06	0.10	0.15
Taken advantage of	0.03	0.05	0.06	0.04	0.13	0.05	0.07	0.09	0.15	0.06	0.34	0.07	0.07	0.05	0.08
Happiness	0.05	0.06	0.13	0.13	0.13	0.07	0.08	0.07	0.07	0.07	0.04	0.07	0.07	0.07	0.08
Income	0.07	0.07	0.08	0.09	0.14	0.16	0.10	0.09	0.08	0.10	0.08	0.10	0.08	0.09	0.13
Religiosity	0.42	0.49	0.09	0.06	0.22	0.05	0.09	0.07	0.09	0.09	0.05	0.09	0.09	0.08	0.09
In discriminated group	0.05	0.05	0.06	0.04	0.07	0.05	0.08	0.06	0.07	0.12	0.50	0.06	0.09	0.17	0.08
Discussion partner	0.05	0.05	0.13	0.13	0.12	0.05	0.07	0.08	0.08	0.08	0.41	0.06	0.06	0.06	0.06
Health hampers activities	0.07	0.07	0.07	0.09	---	0.08	---	0.08	0.07	0.07	0.26	0.07	0.09	0.07	0.05
Self-rated health	0.06	0.05	0.08	0.11	0.17	0.07	0.07	0.08	0.08	0.07	0.16	0.08	0.08	0.11	0.09
regression type	OLS	OLS	OLS	ordered logit	logit	OLS	logit	OLS	OLS	logit	neg. binomial	OLS	OLS	OLS	OLS

Note: Dichotomous predictors are y-standardized, all others (except activism) are fully standardized.

[a] Unstandardized coefficients

Appendix G: Descriptive and Coding Information for Moral Differences Study

G.1 Coding Details for Morality Measures

Values were measured using Schwartz's Portrait Values Questionnaire (PVQ). This widely-validated instrument measures ten value domains: conformity, tradition, security, power, achievement, hedonism, stimulation, self-direction, universalism, and benevolence (Schwartz, 2009). Respondents were asked to read statements and report how much the people described sounded like them. Options ranged from 1='Not like me at all' to 6='Very much like me.' Sample items from each sub-scale are: *Conformity* (α_1 = 0.66): I believe that people should do what they're told. I think people should follow rules at all times, even when no-one is watching; It is important to me to always behave properly. I avoid doing anything people would say is wrong; *Tradition* (α_1 = 0.47): It's important to me to be humble and modest and not to draw attention to myself; Tradition is important to me. I try to follow the customs handed down by my religion and family; *Security* (α_1 = 0.56): It is important to me to live in secure surroundings. I avoid anything that might endanger my safety; It is very important to me that the government ensures my safety against all threats. I want the state to be strong so it can defend its citizens; *Power* (α_1 = 0.57): It is important to me to be rich. I want to have a lot of money and expensive things; It is important to me to get respect from others. I want people to do what I say; *Achievement* (α_1 = 0.76): It's very important to me to show my abilities. I want people to admire what I do; Being very successful is important to me. I hope people will

recognize my achievements; *Hedonism* (α_1 = 0.73): Having a good time is important to me. I like to "spoil" myself; I seek every chance I can to have fun. It is important to me to do things that give me pleasure; *Stimulation* (α_1 = 0.72): I think it is important to do lots of different things in life. I always look for new things to try; I look for adventure and like to take risks. I want to have an exciting life; *Self-direction* (α_1 = 0.54): Thinking up new ideas and being creative is important to me. I like to do things in my own original way; It is important to me to make my own decisions about what I do. I like to be free and not depend on others; *Universalism* (α_1 = 0.66): I think it is important that every person in the world be treated equally. I believe everyone should have equal opportunities in life; It is important to me to listen to people who are different from me. Even when I disagree with them, I still want to understand them; I strongly believe that people should care for nature. Looking after the environment is important to me; *Benevolence* (α_1 = 0.66): It's very important to me to help the people around me. I want to care for their well-being; It is important to me to be loyal to my friends. I want to devote myself to people close to me. The mean of all items was subtracted from each sub-scale to adjust for scale response tendencies.

Sample 2 contains an additional five morality measures based on Moral Foundations Theory. Sample 2 included the 20-item version of the Moral Foundations Questionnaire (MFQ20), which has five subscales created by summing scores across 4 items each (Graham et al., 2011). Sample items are given below. The first two ask for

agreement with the following statements, on a scale of 0=Strongly disagree to 5=Strongly agree: **Harm**: "Compassion for those who are suffering is the most crucial virtue;" "It can never be right to kill a human being;" **Fairness**: " When the government makes laws, the number one principle should be ensuring that everyone is treated fairly;" "Justice, fairness and equality are the most important requirements for a society;" **Ingroup**: "People should be loyal to their family members, even when they have done something wrong;" "It is more important to be a team player than to express oneself;" **Authority**: "Respect for authority is something all children need to learn;" "If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty;" **Purity**: "People should not do things that are disgusting, even if no one is harmed;" "I would call some acts wrong on the grounds that they are unnatural." The final two items for each sub-scale ask respondents to decide whether certain considerations are relevant when deciding whether something is right and wrong, with response options ranging from 0='Not at all relevant – has nothing to do with my judgments of right and wrong' to 5='Extremely relevant – is one of the most important factors when I judge right and wrong.' These are: **Harm**: "Whether or not someone suffered emotionally;" "Whether or not someone was harmed;" **Fairness**: "Whether or not some people were treated differently than others;" "Whether or not someone acted unfairly;" **Ingroup**: "Whether or not someone did something to betray his or her group;" "Whether or not someone's action showed love for his or her country;" **Authority**:

"Whether or not someone showed a lack of respect for authority;" "Whether or not someone failed to fulfill the duties of his or her role;" **Purity**: "Whether or not someone violated standards of purity and decency;" "Whether or not someone did something disgusting." Respondents were also asked to rate the morality of believing in astrology. This was included as a "catch" question, and consistent with recommended practice, those scoring in the top three categories (i.e., saying that astrology was somewhat, very, or extremely relevant to their judgments of morality) were coded as missing. Cronbach's alphas for the final subscales were: $\alpha_{harm} = 0.51$, $\alpha_{fairness} = 0.71$, $\alpha_{ingroup} = 0.51$, $\alpha_{authority} = 0.65$, $\alpha_{purity} = 0.74$.

Descriptive information on these measures is given in Table 12 below.

Table 12: Sample Descriptions, Study on Socio-Demographic Predictors of Morality

	Sample 1		Sample 2	
	Mean	S.D.	Mean	S.D.
Race				
White (reference)	0.67	-	0.72	-
Black	0.11	-	0.1	-
Hispanic	0.15	-	0.13	-
other/multi-racial	0.07	-	0.06	-
Gender				
female	0.52	-	0.51	-
Age cohorts				
18-24 (reference)	0.1	-	0.09	-
25-34	0.21	-	0.18	-
35-44	0.17	-	0.21	-
45-54	0.17	-	0.18	-
55-64	0.19	-	0.17	-
65-74	0.11	-	0.08	-
75 or above	0.06	-	0.08	-
SES – Education and Income				

less than high school (reference)	0.12	-	0.11	-
high school	0.3	-	0.32	-
some college	0.29	-	0.28	-
BA or beyond	0.29	-	0.29	-
income	11.72	4.45	11.25	4.1
Family				
divorced/separated	0.12	-	0.15	-
married	0.55	-	0.51	-
other (reference)	0.33	-	0.34	-
Geography				
metro area	0.84	-	0.84	-
Northeast (reference)	0.18	-	0.18	-
Midwest	0.22	-	0.22	-
South	0.37	-	0.37	-
West	0.23	-	0.23	-
Employment				
working	0.55	-	0.62	-
Religion				
no religion	0.16	-	0.13	-
Baptist	0.18	-	0.18	-
Protestant	0.19	-	0.22	-
Catholic	0.25	-	0.25	-
Pentecostal	0.03	-	0.03	-
other Christian	0.13	-	0.15	-
other non-Christian	0.05	-	0.05	-
Morality				
Moral identity				
moral identity	5.08	0.87	-	-
Moral Foundations Theory				
harm	-	-	3.3	0.85
fairness	-	-	3.57	0.82
ingroup	-	-	2.89	0.82
authority	-	-	3.45	0.81
purity	-	-	3.01	1
Schwartz Values				
conformity	0.04	0.94	-	-
tradition	0.15	0.88	-	-
benevolence	0.64	0.71	-	-
universalism	0.46	0.71	-	-

self-direction	0.38	0.74	-	-
stimulation	-0.47	0.89	-	-
hedonism	-0.4	0.9	-	-
achievement	-0.41	0.91	-	-
power	-0.92	0.92	-	-
security	0.3	0.84	-	-

References

Abramson, Corey M. 2012. "From 'Either-Or' to 'When and How': A Context-Dependent Model of Culture in Action." *Journal for the Theory of Social Behaviour* 42(2):155–80.

Akerlof, George A., and Rachel E. Kranton. 2000. "Economics and Identity." *Quarterly Journal of Economics* 115(3):715–53.

Allison, Paul D. 2009. *Fixed Effects Regression Models*. Los Angeles, C.A.: Sage.

Aquino, Karl, and Americus II Reed. 2002. "The Self-Importance of Moral Identity." *Journal of Personality and Social Psychology* 83(6):1423–40.

Bader, Christopher D., and Roger Finke. 2010. "What Does God Require?: Understanding Religious Context and Morality." Pp. 241–54 in *Handbook of the Sociology of Morality*, edited by Steven Hitlin and Stephen Vaisey. New York: Springer.

Baker, Reg et al. 2010. *AAPOR Report on Online Panels*.

Baker, Reg et al. 2013. *Report of the AAPOR Task Force on Non-Probability Sampling*.

Baker, Wayne E. 2005. *America's Crisis of Values: Reality and Perception*. Princeton, N.J.: Princeton University Press.

Baker, Wayne, and Sheen Levine. 2010. "Mechanisms of Generalized Exchange: Towards an Integrated Model." *Available at SSRN 1352101*.

Bardi, Anat, and Shalom H. Schwartz. 2003. "Values and Behavior: Strength and Structure of Relations." *Personality and Social Psychology Bulletin* 29(10):1207–20.

Bargh, John A., and Tanya L. Chartrand. 2000. "A Practical Guide to Priming and Automaticity Research." Pp. 253–85 in *Handbook of Research Methods in Social Psychology*, edited by H. Reis and C. Judd. New York: Cambridge University Press.

Barnes, Samuel H. et al. 1979. *Political Action: Mass Participation in Five Western Democracies*. Beverly Hills, C.A.: Sage Publications.

Beckers, Tilo, Pascal Siegers, and Anabel Kuntz. 2012. "Congruence and Performance of Value Concepts in Social Research." *Survey Research Methods* 6(1):13–24.

Berger, Ida E., and Andrew A. Mitchell. 1989. "The Effect of Advertising on Attitude Accessibility, Attitude Confidence, and the Attitude-Behavior Relationship." *Journal of Consumer Research* 16(3):269–79.

Beyerlein, Kraig, and Stephen Vaisey. 2013. "Individualism Revisited: Moral Worldviews and Civic Engagement." *Poetics* 41(4):384–406.

Bilsky, Wolfgang, Michael Janik, and Shalom H. Schwartz. 2011. "The Structural Organization of Human Values-Evidence from Three Rounds of the European Social Survey (ESS)." *Journal of Cross-Cultural Psychology* 42(5):759–76.

Bizer, George Y., and Jon A. Krosnick. 2001. "Exploring the Structure of Strength-Related Attitude Features: The Relation Between Attitude Importance and Attitude Accessibility." *Journal of Personality and Social Psychology* 81(4):566–86.

Blake, Judith, and Kingsley Davis. 1964. "Norms, Values, and Sanctions." Pp. 456–84 in *Handbook of Modern Sociology*, edited by Robert E.L. Faris. Chicago: Rand McNally & Company.

Bourdieu, Pierre. 1984. *Distinction: A Social Critique of the Judgement of Taste*. Cambridge, M.A.: Harvard University Press.

Bourdieu, Pierre. 1986. "The Forms of Capital." Pp. 241–58 in *Handbook of Theory of Research for the Sociology of Education*, edited by J.E. Richardson. Greenwood Press.

Bourdieu, Pierre. 1990. *The Logic of Practice*. Stanford, C.A.: Stanford University Press.

Burke, Peter J. 1996. "Social Identities and Psychosocial Stress." Pp. 141–74 in *Psychosocial Stress: Perspectives on Structure, Theory, Life Course, and Methods*, edited by Howard Kaplan. San Diego, C.A.: Academic Press.

Burke, Peter J. 2006. "Identity Change." *Social Psychology Quarterly* 69(1):81–96.

Burke, Peter J., and Jan E. Stets. 2009. *Identity Theory*. New York: Oxford University Press.

Campbell, Colin. 1996. *The Myth of Social Action*. New York: Cambridge University Press.

Cast, Alicia D., Jan E. Stets, and Peter J. Burke. 1999. "Does the Self Conform the Views of Others?" *Social Psychology Quarterly* 62(1):68–82.

Cerulo, Karen A. 2010. "Mining the Intersections of Cognitive Sociology and Neuroscience." *Poetics* 38(2):115–32.

Chaves, Mark. 2010. "Rain Dances in the Dry Season: Overcoming the Religious Congruence Fallacy." *Journal for the Scientific Study of Religion* 49(1):1–14.

Cohen, Dov, Richard E. Nisbett, Brian F. Bowdle, and Norbert Schwarz. 1996. "Insult, Aggression, and the Southern Culture of Honor: An 'Experimental Ethnography.'" *Journal of Personality and Social Psychology* 70(5):945–60.

Collins, Randall. 1981. "On the Microfoundations of Macrosociology." *American Journal of Sociology* 86(5):984–1014.

Correll, Shelley J., and Cecilia L. Ridgeway. 2003. "Expectation States Theory." Pp. 29–51 in *Handbook of Social Psychology*, edited by John Delamater. Kluwer Academic and Plenum Publishers.

Craig, Lyn, and Killian Mullan. 2011. "How Mothers and Fathers Share Childcare: A Cross-National Time-Use Comparison." *American Sociological Review* 76(6):834–61.

Danigelis, Nicholas L., Melissa Hardy, and Stephen J. Cutler. 2007. "Population Aging, Intracohort Aging, and Sociopolitical Attitudes." *American Sociological Review* 72(5):812–30.

Datler, Georg, Wolfgang Jagodzinski, and Peter Schmidt. 2013. "Two Theories on the Test Bench: Internal and External Validity of the Theories of Ronald Inglehart and Shalom Schwartz." *Social Science Research* 42(3):906–25.

Davidov, E. 2007. "Explaining Habits in a New Context the Case of Travel-Mode Choice." *Rationality and Society* 19(3):315–34.

Davidov, Eldad, Bart Meuleman, Jaak Billiet, and Peter Schmidt. 2008. "Values and Support for Immigration: A Cross-Country Comparison." *European Sociological Review* 24(5):583–99.

Davidov, Eldad, Peter Schmidt, and Shalom H. Schwartz. 2008. "Bringing Values Back In: The Adequacy of the European Social Survey to Measure Values in 20 Countries." *Public Opinion Quarterly* 72(3):420–45.

Dever, Jill A., Ann Rafferty, and Richard Valliant. 2008. "Internet Surveys: Can Statistical Adjustments Eliminate Coverage Bias?" *Survey Research Methods* 2(2):47–60.

Devos, Thierry, Que-Lam Huynth, and Mahzarin R. Banaji. 2012. "Implicit Self and Identity." Pp. 155–79 in *Handbook of Self and Identity*, edited by Mark R. Leary and June P. Tangney. New York: Guilford Press.

DiMaggio, Paul. 1997. "Culture and Cognition." *Annual Review of Sociology* 23(1).

DiMaggio, Paul, and John Mohr. 1985. "Cultural Capital, Educational Attainment, and Marital Selection." *American Journal of Sociology* 90(6):1231–61.

Ditto, Peter H., and Spassena P. Koleva. 2011. "Moral Empathy Gaps and the American Culture War." *Emotion Review* 3(3):331–32.

Durkheim, Émile. 1995. *The Elementary Forms of Religious Life*. New York: The Free Press.

Engel, Christoph. 2011. "Dictator Games: A Meta Study." *Experimental Economics* 14(4):583–610.

Evans, Jonathan St B. T. 2008. "Dual-Processing Accounts of Reasoning, Judgment, and Social Cognition." *Annual Review of Psychology* 59:255–78.

Fabrigar, Leandre R., Tara K. MacDonald, and Duane T. Wegener. 2005. "The Structure of Attitudes." Pp. 79–124 in *The Handbook of Attitudes*, edited by Dolores Albarracin, Blair T. Johnson, and Mark P. Zanna. New York: Psychology Press.

File, Thom. 2013. *Computer and Internet Use in the United States*. Washington D.C.

Fontaine, Johnny R. J., Ype H. Poortinga, Luc Delbeke, and Shalom H. Schwartz. 2008. "Structural Equivalence of the Values Domain Across Cultures Distinguishing Sampling Fluctuations From Meaningful Variation." *Journal of Cross-Cultural Psychology* 39(4):345–65.

Forster, Jens, and Nira Liberman. 2007. "Knowledge Activation." Pp. 201–31 in *Social Psychology: Handbook of Basic Principles*, edited by Arie W. Kruglanski and E. Tory Higgins. New York: Guilford Press.

Fourcade, Marion, and Kieran Healy. 2007. "Moral Views of Market Society." *Annual Review of Sociology* 33:285–311.

Foy, Steven, Robert Freeland, Andrew Miles, Kimberly B. Rogers, and Lynn Smith-Lovin. 2014. "Emotions and Affect as Source, Outcome and Resistance to Inequality." Pp. 295-324 in *Handbook of the Social Psychology of Inequality*, edited by Jane D. McLeod, Edward J. Lawler, and Michael Schwalbe. Springer.

Geertz, Clifford. 1973. "Religion as a Cultural System." Pp. 87–125 in *The Interpretation of Cultures*. New York: Basic Books.

Glasman, Laura R., and Dolores Albarracín. 2006. "Forming Attitudes That Predict Future Behavior: A Meta-Analysis of the Attitude-Behavior Relation." *Psychological Bulletin* 132(5):778–822.

Goldstein, Harvey, and Michael J. R. Healy. 1995. "The Graphical Presentation of a Collection of Means." *Journal of the Royal Statistical Society. Series A (Statistics in Society)* 158(1):175–77.

Graham, Jesse et al. 2011. "Mapping the Moral Domain." *Journal of Personality and Social Psychology* 101(2):366–85.

Graham, Jesse et al. 2013. "Moral Foundations Theory: The Pragmatic Validity of Moral Pluralism." Pp. 55–130 in *Advances in Experimental Social Psychology*, vol. Volume 47, edited by Mark P. Zanna, Patricia Devine, James M. Olson, and Ashby Plant. San Diego, C.A.: Academic Press.

Graham, Jesse, and Jonathan Haidt. 2012. "Sacred Values and Evil Adversaries: A Moral Foundations Approach." Pp. 11–32 in *The Social Psychology of Morality: Exploring the Causes of Good and Evil*, edited by P. Shaver and M. Mikulincer. New York: APA Books.

Graham, Jesse, Jonathan Haidt, and Brian A. Nosek. 2009. "Liberals and Conservatives Rely on Different Sets of Moral Foundations." *Journal of Personality and Social Psychology* 96(5):1029–46.

Greene, Joshua. 2013. *Moral Tribes: Emotion, Reason, and the Gap Between Us and Them*. New York: The Penguin Press.

Greene, Joshua D., Sylvia A. Morelli, Kelly Lowenberg, Leigh E. Nystrom, and Jonathan D. Cohen. 2008. "Cognitive Load Selectively Interferes with Utilitarian Moral Judgment." *Cognition* 107(3):1144–54.

Gross, Neil. 2009. "A Pragmatist Theory of Social Mechanisms." *American Sociological Review* 74(3):358–79.

Harding, David J. 2007. "Cultural Context, Sexual Behavior, and Romantic Relationships in Disadvantaged Neighborhoods." *American Sociological Review* 72(3):341–64.

Harding, David J., and Christopher Jencks. 2003. "Changing Attitudes toward Premarital Sex: Cohort, Period, and Aging Effects." *The Public Opinion Quarterly* 67(2):211–26.

Von Hippel, Paul T. 2007. "Regression with Missing Ys: An Improved Strategy for Analyzing Multiply Imputed Data." *Sociological Methodology* 37(1):83–117.

Hirano, Keisuke, and Guido W. Imbens. 2004. "The Propensity Score with Continuous Treatments." Pp. 73–84 in *Applied Bayesian Modeling and Causal Inference from Incomplete-Data Perspectives: An Essential Journey with Donald Rubin's Statistical Family*, edited by Andrew Gelman and Xiao-Li Meng. Chichester, England: John Wiley & Sons Ltd.

Hitlin, Steven. 2003. "Values As the Core of Personal Identity: Drawing Links Between Two Theories of Self." *Social Psychology Quarterly* 66(2):118–37.

Hitlin, Steven. 2006. "Parental Influences on Children's Values and Aspirations: Bridging Two Theories of Social Class and Socialization." *Sociological Perspectives* 49(1):25–46.

Hitlin, Steven. 2008. *Moral Selves, Evil Selves: The Social Psychology of Conscience*. New York: Palgrave MacMillan.

Hitlin, Steven, and Jane Allyn Piliavin. 2004. "Values: Reviving a Dormant Concept." *Annual Review of Sociology* 30(1):359–93.

Hitlin, Steven, and Stephen Vaisey. 2013. "The New Sociology of Morality." *Annual Review of Sociology* 39(1):51–68.

Hoeting, Jennifer A., David Madigan, Adrian E. Raftery, and Chris T. Volinsky. 1999. "Bayesian Model Averaging: A Tutorial." *Statistical Science* 14(4):382–417.

Hogg, Michael A., Deborah J. Terry, and Katherine M. White. 1995. "A Tale of Two Theories: A Critical Comparison of Identity Theory with Social Identity Theory." *Social Psychology Quarterly* 58(4):255–69.

Van Hook, Jennifer, and Frank D. Bean. 2009. "Explaining Mexican-Immigrant Welfare Behaviors: The Importance of Employment-Related Cultural Repertoires." *American Sociological Review* 74(3):423–44.

Hunter, James Davison. 1991. *Culture Wars: The Struggle to Define America*. New York: Basic Books.

Ignatow, Gabriel. 2009. "Culture and Embodied Cognition: Moral Discourses in Internet Support Groups for Overeaters." *Social Forces* 88(2):643–69.

Inglehart, Ronald, and Wayne E. Baker. 2000. "Modernization, Cultural Change, and the Persistence of Traditional Values." *American Sociological Review* 65(1):19–51.

Inglehart, Ronald, and Christian Welzel. 2005. *Modernization, Cultural Change, and Democracy : The Human Development Sequence*. New York: Cambridge University Press.

Jerolmack, Colin, and Shamus Khan. 2014. "Talk Is Cheap: Ethnography and the Attitudinal Fallacy." *Sociological Methods and Research*.

Joas, Hans. 1996. *The Creativity of Action*. Chicago: University Of Chicago Press.

Joas, Hans. 2000. *The Genesis of Values*. Chicago: University of Chicago Press.

Johnson, Kate M. et al. 2014. "Ideology-Specific Patterns of Moral Indifference Predict Intentions Not to Vote." *Analyses of Social Issues and Public Policy*.

Keister, Lisa. 2008. "Conservative Protestants and Wealth: How Religion Perpetuates Asset Poverty." *American Journal of Sociology* 113(5):1237–71.

Khan, Shamus Rhaman. 2011. *Privilege: The Making of an Adolescent Elite at St. Paul's School*. Princeton, N.J.: Princeton University Press.

Kohn, Melvin L., and Carmi Schooler. 1969. "Class, Occupation, and Orientation." *American Sociological Review* 34(5):659–78.

Koleva, Spassena P., Jesse Graham, Ravi Iyer, Peter H. Ditto, and Jonathan Haidt. 2012. "Tracing the Threads: How Five Moral Concerns (Especially Purity) Help Explain Culture War Attitudes." *Journal of Research in Personality* 46(2):184–94.

Kreuter, Frauke, Stanley Presser, and Roger Tourangeau. 2008. "Social Desirability Bias in CATI, IVR, and Web Surveys: The Effects of Mode and Question Sensitivity." *The Public Opinion Quarterly* 72(5):847–65.

Kuntz, Anabel, Eldad Davidov, Shalom H. Schwartz, and Peter Schmidt. 2014. "Human Values , Legal Regulation , and Approval of Homosexuality in Europe : A Cross-Country Comparison." *European Journal of Social Psychology* (2014).

Laitin, David D. 1986. *Hegemony and Culture: Politics and Religious Change among the Yoruba*. Chicago: University of Chicago Press.

Lamont, Michèle. 1992. *Money, Morals, and Manners: The Culture of the French and American Upper-Middle Class*. Chicago: University of Chicago Press.

Lamont, Michèle. 2012. "Toward a Comparative Sociology of Valuation and Evaluation." *Annual Review of Sociology* 38(1):201–21.

Lamont, Michèle, and Annette Lareau. 1988. "Cultural Capital: Allusions, Gaps and Glissandos in Recent Theoretical Developments." *Sociological Theory* 6(2):153–68.

Lamont, Michèle, John Schmalzbauer, Maureen Waller, and Daniel Weber. 1996. "Cultural and Moral Boundaries in the United States: Structural Position, Geographic Location, and Lifestyle Explanations." *Poetics* 24:31–56.

Lareau, Annette. 2003. *Unequal Childhoods: Class, Race, and Family Life*. Berkeley, C.A.: University of California Press.

Leung, Angela K. Y., and Dov Cohen. 2011. "Within- and between-Culture Variation: Individual Differences and the Cultural Logics of Honor, Face, and Dignity Cultures." *Journal of Personality and Social Psychology* 100(3):507–26.

Liu, Brittany S., and Peter H. Ditto. 2013. "What Dilemma? Moral Evaluation Shapes Factual Belief." *Social Psychological and Personality Science* 4(3):316–23.

Lizardo, Omar. 2007. "'Mirror Neurons,' Collective Objects and the Problem of Transmission: Reconsidering Stephen Turner's Critique of Practice Theory." *Journal for the Theory of Social Behaviour* 37(3):319–50.

Lizardo, Omar, and Michael Strand. 2010. "Skills, Toolkits, Contexts and Institutions: Clarifying the Relationship Between Different Approaches to Cognition in Cultural Sociology." *Poetics* 38(2):205–28.

Longest, Kyle C., Steven Hitlin, and Stephen Vaisey. 2013. "Position and Disposition: The Contextual Development of Human Values." *Social Forces* 91(4):1499–1528.

Lönnqvist, Jan-Erik, Sointu Leikas, Sampo Paunonen, Vesa Nissinen, and Markku Verkasalo. 2006. "Conformism Moderates the Relations Between Values, Anticipated Regret, and Behavior." *Personality and Social Psychology Bulletin* 32(11):1469–81.

MacKinnon, Neil J., and David R. Heise. 2010. *Self, Identity, and Social Institutions*. New York: Palgrave Macmillan.

Maio, Gregory R., James M. Olson, Mark M. Bernard, and Michelle A. Luke. 2003. "Ideologies, Values, Attitudes, and Behavior." Pp. 283–308 in *Handbook of Social Psychology*, edited by John Delamater. New York: Kluwer Academic and Plenum Publishers.

Manting, Dorien. 1996. "The Changing Meaning of Cohabitation and Marriage." *European Sociological Review* 12(1):53–65.

Markus, Hazel. 1977. "Self-Schemata and Processing Information about the Self." *Journal of Personality and Social Psychology* 35(2):63–78.

Marsh, Robert M. 2009. "Civilizational Diversity and Support for Traditional Values." *Comparative Sociology* 8(2):267–304.

Mead, George H. 1934. *Mind, Self and Society: From the Standpoint of a Social Behaviorist*. edited by Charles W. Morris. Chicago: University of Chicago Press.

Miles, Andrew. 2014. "Addressing the Problem of Cultural Anchoring: An Identity-Based Model of Culture in Action." *Social Psychology Quarterly* 77(2):210–27.

Miles, Andrew, and Stephen Vaisey. 2014. *Comparing Alternate Theories of Moral Influence on Political Outcomes: A Research Report from the Measuring Morality Project*. Available at http://kenan.ethics.duke.edu/attitudes/resources/measuring-morality/measuring-morality-publications/.

Milfont, Taciano L., John Duckitt, and Claire Wagner. 2010. "A Cross-Cultural Test of the Value–Attitude–Behavior Hierarchy." *Journal of Applied Social Psychology* 40(11):2791–2813.

Mitchell, Colter, Miles Kimball, Arland Thornton, and Linda Young-DeMarco. 2008. "The Reciprocal Relationship Between College Major and Values: Family, Careers, and Society." *Ann Arbor, MI: Department of Sociology and Institute for Social Research, The University of Michigan.* Unpublished manuscript.

Morgan, Stephen L., and Chirstopher Winship. 2007. *Counterfactuals and Causal Inference: Methods and Principles for Social Research*. New York: Cambridge University Press.

Myers, Jessica A., and Thomas A. Louis. 2012. "Comparing Treatments via the Propensity Score: Stratification or Modeling?" *Health Services & Outcomes Research Methodology* 12(1):29–43.

Oberschall, A. 1978. "Theories of Social Conflict." *Annual Review of Sociology* 4(1):291–315.

Parks-Leduc, Laura, Gilad Feldman, and Anat Bardi. 2014. "Personality Traits and Personal Values: A Meta-Analysis." *Personality and Social Psychology Review*.

Parsons, Talcott. 1935. "The Place of Ultimate Values in Sociological Theory." *International Journal of Ethics* 45(3):282–316.

Parsons, Talcott. 1961. "An Outline of the Social System." Pp. 30–79 in *Theories of Society*, edited by Talcott Parsons, Edward Shils, Kaspar D. Naegele, and Jesse R. Pitts. New York: Free Press of Glencoe.

Parsons, Talcott, and Edward A. Shils. 1951. "Values, Motives, and Systems of Action." Pp. 47–275 in *Toward a General Theory of Action*, edited by Talcott Parsons and Edward A. Shils. Cambridge, M.A.: Harvard University Press.

Podsakoff, Philip M., Scott B. MacKenzie, and Nathan P. Podsakoff. 2012. "Sources of Method Bias in Social Science Research and Recommendations on How to Control It." *Annual Review of Psychology* 63:539–69.

Porter, Michael E., Scott Stern, and Michael Green. 2014. *Social Progress Index 2014 Executive Summary*. Retrieved (http://www.socialprogressimperative.org/publications).

Prasad, Monica et al. 2009. "The Undeserving Rich: 'Moral Values' and the White Working Class." *Sociological Forum* 24(2):225–53.

Putnum, Robert D., and David E. Campbell. 2010. *American Grace: How Religion Divides and Unites Us*. New York: Simon and Schuster.

Raftery, Adrian E. 1995. "Bayesian Model Selection in Social Research." *Sociological Methodology* 25:111–63.

Raftery, Adrian E., David Madigan, and Chris T. Volinsky. 1996. "Accounting for Model Uncertainty in Survival Analysis Improves Predictive Performance." Pp. 323–49 in *Bayesian Statistics 5*, edited by J. Bernardo, J. Berger, A. Dawid, and A. Smith. Oxford University Press.

Rivera, Lauren A. 2012. "Hiring as Cultural Matching: The Case of Elite Professional Service Firms." *American Sociological Review* 77(6):999–1022.

Robinson, Dawn T. 2007. "Control Theories in Sociology." *Annual Review of Sociology* 33(1):157–74.

Robinson, Dawn T., and Lynn Smith-Lovin. 2006. "Affect Control Theory." Pp. 137–59 in *Contemporary Social Psychological Theories*. Stanford, C.A.: Stanford University Press.

Roy, William G. 1984. "Class Conflict and Social Change in Historical Perspective." *Annual Review of Sociology* 10(1):483–506.

Sayer, Andrew. 2010. "Class and Morality." Pp. 163–78 in *Handbook of the Sociology of Morality*, edited by Steven Hiltin and Stephen Vaisey. New York: Springer.

Schwartz, Shalom. 2010. "Basic Values: How They Motivate and Inhibit Prosocial Behavior." Pp. 221–42 in *Prosocial Motives, Emotions, and Behavior: The Better Angels of Our Nature*, edited by Mario Mikulincer and Phillip R. Shaver. Washington D.C.: American Psychological Association.

Schwartz, Shalom H. 1992. "Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries." *Advances in Experimental Social Psychology* 25:1–65.

Schwartz, Shalom H. et al. 2001. "Extending the Cross-Cultural Validity of the Theory of Basic Human Values with a Different Method of Measurement." *Journal of Cross-Cultural Psychology* 32(5):519–42.

Schwartz, Shalom H. 2012. "An Overview of the Schwartz Theory of Basic Values." *Online Readings in Psychology and Culture* 2(1):11.

Schwartz, Shalom H. et al. 2012. "Refining the Theory of Basic Individual Values." *Journal of Personality and Social Psychology* 103(4):663–88.

Schwartz, Shalom H., Gian Vittorio Caprara, and Michele Vecchione. 2010. "Basic Personal Values, Core Political Values, and Voting: A Longitudinal Analysis." *Political Psychology* 31(3):421–52.

Senn, Stephen, Erika Graf, and Angelika Caputo. 2007. "Stratification for the Propensity Score Compared with Linear Regression Techniques to Assess the Effect of Treatment or Exposure." *Statistics in Medicine* 26(30):5529–44.

Serpe, Richard T., and Sheldon Stryker. 1987. "The Construction of Self and the Reconstruction of Social Relationships." Pp. 41–66 in *Advances in Group Processes*. Greenwich, C.N.: JAI Press.

Smith, Christian. 2003. *Moral, Believing Animals: Human Personhood and Culture*. New York: Oxford University Press.

Smith-Lovin, Lynn. 2007. "The Strength of Weak Identities: Social Structural Sources of Self, Situation and Emotional Experience." *Social Psychology Quarterly* 70(2):106–24.

Smith-Lovin, Lynn, and Dawn T. Robinson. 2006. "Control Theories of Identity, Action, and Emotion: In Search of Testable Differences Between Affect Control Theory and Identity Control Theory." Pp. 163–88 in *Purpose, Meaning and Action: Control Systems Theories in Sociology*, edited by Kent A. McClelland and Thomas J. Fararo. Palgrave MacMillan.

Spates, James L. 1983. "The Sociology of Values." *Annual Review of Sociology* 9:27–49.

Srivastava, Sameer B., and Mahzarin R. Banaji. 2011. "Culture, Cognition, and Collaborative Networks in Organizations." *American Sociological Review* 76(2):207–33.

Steensland, Brian et al. 2000. "The Measure of American Religion: Toward Improving the State of the Art." *Social Forces* 79(1):291–318.

Stets, Jan E., and Michael J. Carter. 2011. "The Moral Self: Applying Identity Theory." *Social Psychology Quarterly* 74(2):192–215.

Stets, Jan E., and Michael J. Carter. 2012. "A Theory of the Self for the Sociology of Morality." *American Sociological Review* 77(1):120–40.

Stets, Jan E., Michael J. Carter, Michael M. Harrod, Christine Cerven, and Seth Abrutyn. 2008. "The Moral Identity, Status, Moral Emotions, and the Normative Order." Pp. 227–52 in *Social Structure and Emotion*, edited by Jody Clay-Warner and Dawn T. Robinson. San Diego, C.A.: Elsevier.

Stets, Jan E., and Alicia D. Cast. 2007. "Resources and Identity Verification from an Identity Theory Perspective." *Sociological Perspectives* 50(4):517–43.

Stets, Jan E., and Michael M. Harrod. 2004. "Verification Across Multiple Identities: The Role of Status." *Social Psychology Quarterly* 67(2):155–71.

Stolzenberg, Ross M., Mary Blair-Loy, and Linda J. Waite. 1995. "Religious Participation in Early Adulthood: Age and Family Life Cycle Effects on Church Membership." *American Sociological Review* 60(1):84–103.

Stryker, Sheldon. 1980. *Symbolic Interactionism: A Social Structural Version*. Menlo Park, C.A.: Benjamin/Cummings Publishing Company.

Stryker, Sheldon. 2008. "From Mead to a Structural Symbolic Interactionism and Beyond." *Annual Review of Sociology* 34(1):15–31.

Stryker, Sheldon, and Richard T. Serpe. 1982. "Commitment, Identity Salience, and Role Behavior: A Theory and Research Example." Pp. 199–218 in *Personality, Roles, and Social Behavior*, edited by William Ickes and Eric S. Knowles. New York: Springer-Verlag.

Stryker, Sheldon, and Richard T. Serpe. 1994. "Identity Salience and Psychological Centrality: Equivalent, Overlapping, or Complementary Concepts?" *Social Psychology Quarterly* 57(1):16–35.

Stryker, Sheldon, Richard T. Serpe, and Matthew O. Hunt. 2005. "Making Good on a Promise: The Impact of Larger Social Structures on Commitments." Pp. 93–123 in

Advances in Group Processes, edited by Shane R. Thye and Edward J. Lawler. Emerald Group Publishing.

Swann, William B. Jr, Brett W. Pelham, and Douglas S. Krull. 1989. "Agreeable Fancy or Disagreeable Truth? Reconciling Self-Enhancement and Self-Verification." *Journal of Personality and Social Psychology* 57(5):782.

Swidler, Ann. 1986. "Culture in Action: Symbols and Strategies." *American Sociological Review* 51(2):273–86.

Swidler, Ann. 2001. *Talk of Love: How Culture Matters*. Chicago: University of Chicago Press.

Swidler, Ann. 2008. "Comment on Stephen Vaisey's 'Socrates, Skinner, and Aristotle: Three Ways of Thinking about Culture in Action.'" *Sociological Forum* 23(3):614–18.

Tabatabai, Ahoo, and Annulla Linders. 2011. "Vanishing Act: Non-Straight Identity Narratives of Women in Relationships with Women and Men." *Qualitative Sociology* 34(4):583–99.

Tavory, Iddo, and Yehuda C. Goodman. 2009. "'A Collective of Individuals': Between Self and Solidarity in a Rainbow Gathering." *Sociology of Religion* 70(3):262–84.

Tourangeau, Roger, and Ting Yan. 2007. "Sensitive Questions in Surveys." *Psychological Bulletin* 133(5):859–83.

Tsushima, Teresa, and Peter J. Burke. 1999. "Levels, Agency, and Control in the Parent Identity." *Social Psychology Quarterly* 62(2):173–89.

Vaisey, Stephen. 2008. "Reply to Ann Swidler." *Sociological Forum* 23(3):619–22.

Vaisey, Stephen. 2009. "Motivation and Justification: A Dual-Process Model of Culture in Action." *American Journal of Sociology* 114(6):1675–1715.

Vaisey, Stephen. 2010. "What People Want: Rethinking Poverty, Culture, and Educational Attainment." *The ANNALS of the American Academy of Political and Social Science* 629(1):75–101.

Vaisey, Stephen, and Omar Lizardo. 2010. "Can Cultural Worldviews Influence Network Composition?" *Social Forces* 88(4):1595–1618.

Vaisey, Stephen, and Andrew Miles. 2014. "Tools from Moral Psychology for Measuring Personal Moral Culture." *Theory and Society* 43(3-4):311–32.

Verplanken, Bas, and Rob W. Holland. 2002. "Motivated Decision Making: Effects of Activation and Self-Centrality of Values on Choices and Behavior." *Journal of Personality and Social Psychology* 82(3):434–47.

Wacquant, Loic. 2004. *Body and Soul: Notebooks of an Apprentice Boxer*. New York: Oxford University Press.

Walder, Andrew G. 2009. "Political Sociology and Social Movements." *Annual Review of Sociology* 35:393–412.

Weeden, Kim A., and David B. Grusky. 2005. "The Case for a New Class Map." *American Journal of Sociology* 111(1):141–212.

Wrong, Dennis H. 1961. "The Oversocialized Conception of Man in Sociology." *American Sociological Review* 26(2):183–93.

Wuthnow, Robert. 2008. "The Sociological Study of Values." *Sociological Forum* 23(2):333–43.

Wuthnow, Robert J. 1988. "The Restructuring of American Religion: Society and Faith Since World War II." Pp. 132–72 in. Princeton University Press.

Biography

Andrew Miles was born November 8, 1982 at Reese Air Force Base in Lubbock, Texas. He received a BA in History from Brigham Young University (2006), an MA in Religion from the Claremont School of Theology (2008), an MA in Sociology from Duke University (2011) and a Ph.D. in Sociology from Duke University (2015). He is the author or co-author of publications on a variety of topics. Peer-reviewed publications include "Demographic Correlates of Moral Differences in the Contemporary United States" (*Poetics*), "The Role of Moral Worldviews in Predicting Adolescent Sexual Behavior" (*Journal of Adolescent Research*), "What You Can – and Can't – Do with Three-Wave Panel Data" (*Sociological Methods and Research*), "Addressing the Problem of Cultural Anchoring: An Identity-Based Model of Culture in Action" (*Social Psychology Quarterly*), "Tools from Moral Psychology for Measuring Personal Moral Culture" (*Theory & Society*), "Ideology-Specific Patterns of Moral Motivation Predict Intentions Not to Vote" (*Analyses of Social Issues and Public Policy*), "Using Effort-Reward Imbalance Theory to Understand High Rates of Depression and Anxiety Among Clergy" (*The Journal of Primary Prevention*), "Overcoming the Challenges of Pastoral Work?: Peer Support Groups and Mental Distress among United Methodist Church Clergy" (*Sociology of Religion*), "Are Rural Clergy Worse Off?: An Examination of Occupational Conditions and Pastoral Experiences in a Sample of United Methodist Clergy" (*Sociology of Religion*), and "Explaining Rural/Non-rural Disparities in Physical Health-Related Quality of Life:

A Study of United Methodist Clergy in North Carolina" (*Quality of Life Research*). Book chapters and research reports include "Emotions and Affect in the Creation, Reproduction, and Resistance of Inequality", (*The Handbook of the Social Psychology of Inequality*), "Health-Related Quality of Life in North Carolina (USA), Rural and Non-Rural Disparities" (*Encyclopedia of Quality of Life and Well-Being Research*), and "Denominational Research Report: Exploring Rural/Non-rural Differences among United Methodist Churches and Clergy in North Carolina" (*Review of Religious Research*). During his graduate career he was awarded a fellowship in the Program for Advanced Research in the Social Sciences by Duke University's Social Science Research Institute, and was twice awarded Summer Research Fellowship by the Duke University Graduate School.