



## Individual differences explain regional differences in honor-related outcomes



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### ABSTRACT

Much research has been devoted to the investigation of both the culture of honor residing in the American South and the individual difference ideologies that stem from this culture. The purpose of our study was to investigate the ability of individual differences in masculine honor beliefs (Saucier et al., 2016) to explain the regional differences that Southern and Northern men showed on the original measures of honor-related outcomes employed by the seminal scholars in culture of honor research (e.g., Cohen & Nisbett, 1994; Nisbett, 1993). Consistent with hypotheses, our results replicate regional differences in honor-related responses, but also show that individual differences in masculine honor beliefs mediate these regional differences. Thus, our research extends the notion of cultures of honor beyond their regional boundaries, and highlights the value in conceptualizing honor as a psychological individual difference factor.

### 1. Introduction

Cultures of honor exist around the world (e.g., Figueredo, Tal, McNeil, & Guillen, 2004; Fischer, Manstead, & Rodriguez Mosquera, 1999; Rodriguez Mosquera, Manstead, & Fischer, 2002), with research particularly devoted to the culture of honor in the American South (e.g., Cohen & Nisbett, 1994; Cohen & Nisbett, 1997; Cohen, Nisbett, Bowdle, & Schwarz, 1996; Cohen, Vandello, Puente, & Rantilla, 1999; Cohen, Vandello, & Rantilla, 1998; Nisbett, 1993). This culture of honor is characterized by men's devotion to the protection of themselves, their reputations, families, and property against threats and insults (e.g., Brown, 2016; Nisbett, 1993; Saucier & McManus, 2014). Originating from historically making their livelihoods by herding, a profession vulnerable to poaching and other threats, men in the American South strive to demonstrate they are tough, and will defend against insults and threats with physical aggression if necessary (e.g., Brown, 2016; Nisbett, 1993).

Comparatively, men (especially White men) in the American South commit more violent crimes in response to insults (e.g., Brown, Osterman, & Barnes, 2009; Cohen, 1998; Cohen & Nisbett, 1994; Nisbett, 1993); demonstrate more physical aggression in response to insults (e.g., Cohen et al., 1996; Cohen et al., 1999; Cohen & Nisbett, 1997); report more aggressive thoughts, emotions, attitudes, and support for physically aggressive responses to threats and insults (e.g., Cohen et al., 1996; Vandello, Cohen, & Ransom, 2008); perpetrate more school shootings (Brown et al., 2009); and die more often in accidents

while attempting to demonstrate their honor (Barnes, Brown, & Tamborski, 2012). Thus, it appears clear cultures of honor perpetuate ideologies that drive men to aggressively demonstrate, protect, and maintain their masculine honor against potential challengers.

Recent research has operationalized the ideologies underlying these regional differences as individual differences that exist both within and beyond the traditional regional confines of cultures of honor (Barnes, Brown, & Osterman, 2012; Rodriguez Mosquera et al., 2002; Saucier et al., 2016; Vandello, Cohen, Grandon, & Franiuk, 2009). Higher levels of endorsement of masculine honor ideology are associated with more negative emotions and more aggressive responses to insult, provocation (O'Dea, Castro Bueno, & Saucier, 2017; Rodriguez Mosquera et al., 2002; Saucier et al., 2016; Saucier, Till, Miller, O'Dea, & Andres, 2015), terrorist threat (Barnes, Brown, & Osterman, 2012), and romantic rejection (Stratmoen, Greer, Martens, & Saucier, In Press). Higher levels of endorsement of masculine honor ideology are also associated with support for war and intrusive security policies (e.g., Saucier, Webster, McManus, Sonnentag, O'Dea, & Strain, In press), risk taking (Barnes, Brown, & Tamborski, 2012), depression (Osterman & Brown, 2011), perceiving it is weak to seek mental health services (Brown, Imura, & Mayeux, 2014), greater muscularity concerns (Saucier, O'Dea, & Stratmoen, In Press), and negative perceptions of rapists and women who have been raped (Saucier, Strain, Hockett, & McManus, 2015).

Despite a call for the joint examination of cultural and individual differences in understanding how honor manifests (see Leung & Cohen, 2011), only a few studies have investigated the potential for these

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individual differences to explain the regional differences in honor-related outcomes documented in the seminal work on cultures of honor. For example, Barnes, Brown, & Osterman (2012) found White men from the American South, compared to White men from the American North, scored higher on their measure of masculine honor ideology and, in a separate study, found they more greatly endorsed lethal retaliation against terrorist attacks. However, Barnes, Brown, & Osterman (2012) did not test if the differences in masculine honor ideology mediated the differences on the endorsement of lethal retaliation against terrorist attacks. Similarly, Barnes, Brown, & Tamborski (2012) examined differences between honor and non-honor states in the United States in accidental death rates in one study, and examined the association between their measure of masculine honor ideology and tendencies to take risks in a second study, but did not directly test if differences in masculine honor ideology mediated the regional differences.

Our purpose was to investigate the ability of individual differences in masculine honor ideology to explain regional differences White men show on the exact measures of honor-related outcomes originally employed by seminal culture of honor researchers. These measures were used to establish the notion of “culture of honor” in the social psychological literature and thus allows our research to both replicate and extend seminal work. First, we hypothesized we would replicate the extant literature by showing White men in the American South showed greater levels of honor-related outcomes than did White men in other regions of the United States. Second, we hypothesized any regional differences on these honor-related outcomes would be mediated by the participants' scores on an individual difference measure of their masculine honor beliefs. By using an individual difference measure of their masculine honor beliefs to potentially explain the regional differences on several dependent measures of honor-related outcomes employed in the seminal research on cultures of honor, our research extends the notion of cultures of honor beyond their regional boundaries, and highlights the value in conceptualizing honor as a psychological individual difference.

## 2. Method

### 2.1. Participants

Participants ( $N = 340$ ) were recruited via Amazon Mechanical Turk and were compensated \$0.15 for their participation. To stay consistent with research on the culture of honor in the United States, which used only White males to establish the construct (e.g., Cohen et al., 1996; Cohen & Nisbett, 1994; Nisbett, 1993), we advertised the study as “Men's Perceptions of Aggression” and requested only male workers in the description of the study on Mechanical Turk. We removed 102 participants' data from our analyses who did not indicate they were White. We also removed 11 participants who did not indicate they were male, 9 participants who could not be coded into Northern or Southern regions, and 12 participants who had missing data on our masculine honor beliefs measure or honor-related responses. Of the remaining 206 participants the majority were single (65.6%), White male participants aged 18 to 67 ( $M = 31.72$ ,  $SD = 10.04$ ). Participants' modal education level was a four-year college degree (median = two-year college degree) and their modal annual household income was under \$20,000 (median = \$40,000–\$49,000). Using a power analysis for our planned  $3 \times 2$  ANOVA, we determined this sample size would give us sufficient power ( $> 0.90$ ) to detect moderate effect-sizes ( $f > 0.30$ ) at  $\alpha < 0.05$ .

### 2.2. Procedure

Participants completed an informed consent, demographic questions, and the Masculine Honor Beliefs Scale (MHBS; Saucier et al., 2016). Participants then responded to a randomized series of honor-related scenarios and items. Upon completion of the measures

(approximately 10 min), participants were thanked, debriefed, and compensated.

### 2.3. Variables and measures

#### 2.3.1. Region and community type

So that we could test whether masculine honor beliefs and honor-related responses differed by where participants were from (see Vandello et al., 2008; Vandello et al., 2009), we coded participants' responses to the question: “What state are you from (i.e., where you grew up or spent most of your life)?” using the categorization system used in prior research (e.g., Cohen & Nisbett, 1994; Nisbett, 1993; Nisbett & Cohen, 1996); participants who indicated they were from Southern states were coded as Honor Region ( $n = 53$ ), and participants who did not indicate they were from Southern states were coded as Non-Honor Region ( $n = 153$ ). Additionally, due to differences between honor regions and non-honor regions in rural communities reported in the literature (e.g., Nisbett, 1993; Reaves, 1992; Reaves & Nisbett, 1994), participants indicated their community types as urban ( $n = 44$ : North = 36, South = 8), suburban ( $n = 112$ : North = 83, South = 29), or rural ( $n = 50$ : North = 34, South = 16).

#### 2.3.2. Masculine honor beliefs

We used the 35-item MHBS (Saucier et al., 2016) to measure individual differences in endorsement of masculine honor beliefs. Participants rated their levels of agreement with each item (e.g., “It is very important for a man to act bravely”;  $\alpha = 0.94$ ) using 1 (Strongly Disagree) to 9 (Strongly Agree) Likert-type scales. Scores on the MHBS were calculated by averaging participants' responses across the items with higher ratings indicating higher levels of endorsement of masculine honor beliefs.

#### 2.3.3. Honor-related responses

To test our hypotheses, we employed scenarios and dependent variables used previously to measure various aspects of honor in seminal studies that found regional differences in masculine honor-related outcomes (Barnes, Brown, & Osterman, 2012; Cohen & Nisbett, 1994; Rodriguez Mosquera et al., 2002; Vandello & Cohen, 2003). Participants completed the measures listed below in randomized orders:

**2.3.3.1. Emotional Reactions to Insult.** Rodriguez Mosquera et al. (2002) found participants from an honor culture reported more anger-related emotions in response to insults than did those from a non-honor culture. We used the threats to masculine honor and made small changes to their wording (i.e., ‘café’ to ‘bar’; ‘partner’ to ‘significant other’):

*You have a significant other and you are with this person in a bar. Another person you do not know begins to annoy your significant other. Your significant other reacts quickly and before you can do anything the other person leaves. If others were then to say to you: “You are not even capable of protecting your own significant other,” to what extent would you...?*

Participants then completed five items (e.g., “To what extent would you feel enraged/insulted/shame”) to measure their emotional reactions using 1 (Not at all) to 7 (Very much) Likert-type scales.

**2.3.3.2. Endorsement of violence.** Using items and scenarios from previous research (Blumenthal, Kahn, Andrews, & Head, 1972), Cohen and Nisbett (1994) found Southern men endorsed violence serving protective or retributive functions more so than did Northern men. We used several of the Cohen and Nisbett (1994) measures in our current study:

**2.3.3.2.1. Support for Violence.** Our participants rated their level of agreement with seven items measuring Support for Violence (e.g., “It is often necessary to use violence to prevent violence”) using 1 (Strongly Disagree) to 7 (Strongly Agree) Likert-type scales.

2.3.3.2.2. *Justified violence.* Participants read the following instructions:

*Sometimes conflicts are resolved through fighting, and other times, they are resolved nonviolently. Imagine that a man named “Fred” finds himself in the following situations. In these situations, please tell us whether Fred’s use of violence was justified.*

Participants then responded to five scenarios (e.g., “Fred fights a male acquaintance because that man insults Fred’s wife, implying that she has loose morals”) using 1 (*Unjustified*) to 7 (*Extremely Justified*) Likert-type scales.

2.3.3.2.3. *Right to kill.* Participants rated their level of agreement with three scenarios (e.g., “A man has the right to kill another man in case of self-defense.”) about men’s right to kill using 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) Likert-type scales.

2.3.3.3. *Aggressive responses to infidelity.* Vandello and Cohen (2003) found participants from honor cultures were more supportive of domestic violence as a means of restoring a man’s reputation than were participants from non-honor cultures. Our participants read the following scenario used by Vandello and Cohen (2003):

*A man and his wife have been married for seven years. When the husband found out that his wife had been having an affair, he responded by slapping her across the face, grabbing her by the arms and shaking her, and yelling “You must stop this affair immediately!”*

Participants then responded to a single question (i.e., “How justified was the husband’s response to his wife?”) using a 1 (*Extremely Unjustified*) to 7 (*Extremely Justified*) Likert-type scale.

2.3.3.4. *War on terror.* Barnes, Brown, & Osterman (2012) found Southern participants supported more lethal reactions to terrorism than did Northern participants. Our participants rated their level of agreement with five items (e.g., *It is entirely appropriate to engage in preemptive attacks on countries that are suspected of harboring or supporting terrorists.*) indicating their support for the war on terror using 1 (*Strongly Disagree*) to 9 (*Strongly Agree*) Likert-type scales.

We aggregated each of the multi-item measures above by averaging the items to create composites maintaining the original scale ranges. We omitted items from these composites if the item-total correlation was < 0.50. This data reduction resulted in six measures of honor-related responses: Emotional Reactions to Insult (five items from Rodriguez Mosquera et al., 2002,  $\alpha = 0.93$ , scale range 1 to 7); Support for Violence (five items from Cohen & Nisbett, 1994, two omitted,  $\alpha = 0.87$ , scale range 1 to 7); Justified Violence (four items from Cohen & Nisbett, 1994, one omitted,  $\alpha = 0.87$ , scale range 1 to 7); Right to Kill (three items from Cohen & Nisbett, 1994,  $\alpha = 0.82$ , scale range 1 to 7); Aggressive Responses to Infidelity (single item from Vandello & Cohen, 2003, range 1 to 7); War on Terror (five items from Barnes, Brown, & Osterman, 2012,  $\alpha = 0.88$ , scale range 1 to 9). Results from a principal components exploratory factor analysis showed the items loaded onto six factors consistent with how we aggregated the data.

### 3. Results

Consistent with our hypothesis, the MHBS correlated with each of the honor-related responses we selected from prior research (see Table 1). These correlations indicated moderate relationships between masculine honor beliefs and a breadth of reactions sanctioned in honor cultures (e.g., support for defensive, retributive, preemptive violence, response to insult).

We next tested whether masculine honor beliefs and support for honor-related outcomes differed between participants from honor and non-honor regions. For each of our honor-related measures, we conducted 2 (Region: Honor Region/Non-Honor Region)  $\times$  3 (Community Type: Urban, Suburban, Rural) between-groups ANOVA (see Table 2).

**Table 1**  
Correlations between MHBS and honor-related responses.

	1	2	3	4	5	6	7
1. MHBS	–						
2. Emotional Reactions to Insult (Mosquera, 2002)	0.46**	–					
3. Support for Violence (Cohen & Nisbett, 1994)	0.57**	0.28**	–				
4. Justified Violence (Cohen & Nisbett, 1994)	0.57**	0.38**	0.55**	–			
5. Right to Kill (Cohen & Nisbett, 1994)	0.38**	0.10	0.43**	0.21**	–		
6. Aggressive Responses to Infidelity (Vandello & Cohen, 2003)	0.19**	0.33**	0.25**	0.37**	0.07	–	
7. War on Terror (Barnes, Brown, & Osterman, 2012; Barnes, Brown, & Tamborski, 2012)	0.50**	0.27**	0.52**	0.41**	0.35**	0.11	–

\*\*  $p < 0.01$ .

We observed the highest levels of masculine honor beliefs in participants who were from Southern rural communities. Multiple comparisons revealed a significant interaction between Region and Community Type due to significantly higher levels of masculine honor beliefs in rural honor regions than rural non-honor regions (Table 2 and Fig. 1). For five of our six measures of honor-related responses, levels of aggressive emotions and Support for Violence as a means for defense and retribution were significantly higher (at  $ps < 0.05$ ) or marginally higher (at  $ps < 0.10$ ) in rural honor regions than rural non-honor regions. Our primary hypothesis was regional differences in honor-related responses would be mediated by individual differences in masculine honor beliefs (see Fig. 2).

Therefore, where we found significant or marginally significant differences between rural honor regions and rural non-honor regions in honor-related responses, we conducted mediation analyses (Hayes, 2013) to test the indirect effects of honor region through the MHBS on levels of honor-related responses. Table 3 displays the model coefficients and significance tests for each path in our model. Consistent with our hypothesis, bootstrapped confidence intervals (based on 10,000 samples) of all the indirect effects were greater than zero, indicating that individuals’ scores on the MHBS mediated the regional differences in honor-related response.

### 4. Discussion

Consistent with our hypotheses, each of the differences in honor-related outcomes that emerged between honor and non-honor regions was significantly mediated by participants’ masculine honor ideologies with all of the relationships, except endorsement of the war on terror, being fully mediated. Furthermore, we showed the differences in our participants’ masculine honor beliefs, as well as the endorsement of honor-related responses, were more robust when comparing honor regions to non-honor regions in rural areas, than when comparing honor regions to non-honor regions in urban or suburban areas. Additionally, even the criterion variables that did not differ by region (e.g., aggressive responses to infidelity) were significantly correlated with individual differences in masculine honor beliefs, highlighting the importance of conceptualizing masculine honor ideologies as an individual difference and exemplifying the effectiveness of the MHBS in mediating the relationship between regional differences and honor-related responses.

Much of the seminal literature (e.g., Cohen & Nisbett, 1994; Nisbett, 1993) on masculine honor focused on differences in aggressive thoughts, emotions, and attitudes among White males residing within honor and non-honor cultures. However, Saucier et al. (2016) argued

**Table 2**  
Regional differences in masculine honor beliefs and honor-related responses.

	Honor region			Non-honor region			Region <i>F</i> (1, 200)	Comm. <i>F</i> (2, 200)	Region × Comm. <i>F</i> (2, 200)
	Urban <i>M</i> ( <i>SD</i> )	Suburban <i>M</i> ( <i>SD</i> )	Rural <i>M</i> ( <i>SD</i> )	Urban <i>M</i> ( <i>SD</i> )	Suburban <i>M</i> ( <i>SD</i> )	Rural <i>M</i> ( <i>SD</i> )			
MHBS	5.51 (1.20)	5.34 (1.03)	6.28* (1.55)	5.69 (1.40)	5.62 (1.03)	5.36* (1.12)	0.57	1.68	5.42*
Emotional Reactions to Insult (Mosquera, 2002)	4.00 (1.00)	3.54 (1.78)	3.86† (1.75)	4.06 (1.99)	3.70 (1.69)	3.22† (1.76)	0.60	1.10	1.52
Support for Violence (Cohen & Nisbett, 1994)	3.65 (1.23)	3.28 (1.47)	4.31* (1.94)	3.22 (1.32)	3.45 (1.30)	3.33* (1.38)	2.69	1.59	2.56†
Justified Violence (Cohen & Nisbett, 1994)	3.41 (1.51)	2.57 (1.35)	3.27* (1.38)	2.81 (1.70)	2.74 (1.44)	2.27* (1.34)	3.23†	0.97	2.48†
Right to Kill (Cohen & Nisbett, 1994)	5.33 (1.37)	5.18 (1.72)	6.31† (0.91)	5.20 (1.51)	5.25 (1.40)	5.54† (1.47)	1.16	3.67*	1.21
Aggressive Responses to Infidelity (Vandello & Cohen, 2003)	3.50 (2.20)	2.90 (1.92)	3.13 (1.78)	3.00 (1.93)	2.95 (1.83)	2.82 (1.68)	0.56	0.32	0.29
War on Terror (Barnes, Brown, & Osterman, 2012; Barnes, Brown, & Tamborski, 2012)	5.50† (2.72)	3.39 (1.94)	5.90** (2.46)	3.99† (2.30)	3.83 (2.00)	3.86** (1.98)	7.46**	6.46**	5.17**

Note. Means with an asterisk indicate significant differences in pairwise comparisons between honor regions and non-honor regions for that community type; MHBS = masculine honor belief scale; Comm. = community type (urban/suburban/rural).

† *p* < 0.10.

\* *p* < 0.05.

\*\* *p* < 0.01

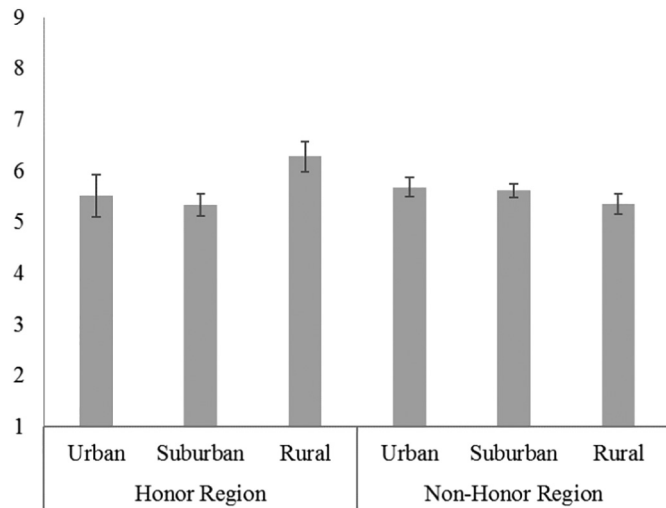


Fig. 1. MHBS by region and community type.

masculine honor is more appropriately conceptualized as an individual difference because “the more transient and interconnected (e.g., via Internet and mass media communications) nature of contemporary society” (p. 8) has allowed for the transmission of honor beliefs to extend beyond regional boundaries. The additional benefit of measuring masculine honor beliefs as a continuous individual difference is that we can better capture variability in endorsement of masculine honor ideology at the level of the individual than can be captured when we treat honor culture as a categorical, regional variable. By conceptualizing masculine honor as an individual difference, researchers may examine the effects of honor not only between cultures, but within cultures as well.

Limiting our ability to draw causal conclusions, our data were cross-sectional. Instead, we can conclude regional differences are related to differences in masculine honor ideologies, which are related to differences in the endorsement of honor-related outcomes. Future research should experimentally test these effects, thus establishing more concrete causal conclusions about the temporal ordering of these variables. In addition, there were unequal numbers of participants from non-honor and honor cultures. However, despite this limitation, our results are highly consistent in that individual differences in masculine honor beliefs predict participants' endorsement of each of the honor-related outcomes, and these individual differences appear to explain the

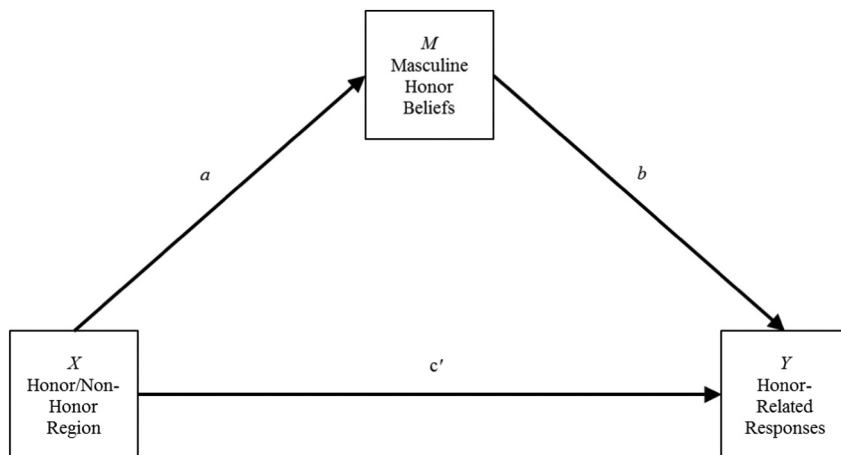


Fig. 2. Hypothesized model for how individual differences in masculine honor beliefs mediate differences in honor-related responses.

**Table 3**  
MHBS mediating rural regional differences in honor-related responses.

Emotional Reactions to Insult (Rodriguez Mosquera et al., 2002)								
Antecedent		Consequent			Y (Reactions to Insult)			
		M (MHBS)			Y (Reactions to Insult)			
		Coeff.	SE	p				
		Coeff.	SE	p	Coeff.	SE	SE	p
X (Region)	a	0.92 [0.15, 1.70]	0.38	.020	c	0.95 [-0.10, 2.00]	0.52	.075
					c'	0.29 [-0.67, 1.25]	0.48	.546
M (MHBS)					b	0.72 [0.38, 1.06]	0.17	< .001
Model summary		R <sup>2</sup> = .33 F(1, 48) = 5.79, p = .020				R <sup>2</sup> = .57 F(2, 47) = 11.22, p < .001		
Sobel Test Z = 2.05, p = .040								
Indirect Effect (a × b) = 0.66 [0.07, 1.51], SE = 0.35								
Support for Violence (Cohen & Nisbett, 1994)								
Antecedent		Consequent			Y (Support for Violence)			
		M (MHBS)			Y (Support for Violence)			
		Coeff.	SE	p				
		Coeff.	SE	p	Coeff.	SE	SE	p
X (Region)	a	0.92 [0.15, 1.70]	0.38	.020	c	0.98 [0.02, 1.94]	0.48	.045
					c'	0.48 [-0.44, 1.41]	0.46	.301
M (MHBS)					b	0.54 [0.21, 0.87]	0.16	.002
Model summary		R <sup>2</sup> = .33 F(1, 48) = 5.79, p = .020				R <sup>2</sup> = .50 F(2, 47) = 8.06, p = .001		
Sobel Test Z = 1.89, p = .058								
Indirect Effect (a × b) = 0.50 [0.06, 1.20], SE = 0.28								
Justified Violence (Cohen & Nisbett, 1994)								
Antecedent		Consequent			Y (Justified Violence)			
		M (MHBS)			Y (Justified Violence)			
		Coeff.	SE	p				
		Coeff.	SE	p	Coeff.	SE	SE	p
X (Region)	a	0.92 [0.15, 1.70]	0.38	.020	c	0.99 [0.17, 1.82]	0.41	.019
					c'	0.50 [-0.26, 1.26]	0.38	.195
M (MHBS)					b	0.54 [0.27, 0.81]	0.13	< .001
Model summary		R <sup>2</sup> = .33 F(1, 48) = 5.79, p = .020				R <sup>2</sup> = .58 F(2, 47) = 11.80, p < .001		
Sobel Test Z = 2.01, p = .044								
Indirect Effect (a × b) = 0.50 [0.08, 1.24], SE = 0.28								
Right to Kill (Cohen & Nisbett, 1994)								
Antecedent		Consequent			Y (Right to Kill)			
		M (MHBS)			Y (Right to Kill)			
		Coeff.	SE	p				
		Coeff.	SE	p	Coeff.	SE	SE	p
X (Region)	a	0.92 [0.15, 1.70]	0.38	.020	c	0.77 [-0.03, 1.58]	0.40	.059
					c'	0.48 [-0.34, 1.30]	0.41	.243
M (MHBS)					b	0.31 [0.02, 0.61]	0.15	.035

(continued on next page)



Table 3 (continued)

Right to Kill (Cohen & Nisbett, 1994)									
Antecedent		Consequent			Y (Right to Kill)				
		M (MHBS)			Y (Right to Kill)				
		Coeff.	SE	p			Coeff.	SE	p
Model summary		$R^2 = .33$ $F(1, 48) = 5.79, p = .020$			$R^2 = .40$ $F(2, 47) = 4.36, p = .018$				
Sobel Test $Z = 1.54, p = .124$									
Indirect Effect ( $a \times b$ ) = 0.29 [0.03, 0.80], $SE = 0.18$									
War on Terror (Barnes, Brown, & Osterman, 2012; Barnes, Brown, & Tamborski, 2012)									
Antecedent		Consequent			Y (War on Terror)				
		M (MHBS)			Y (War on Terror)				
		Coeff.	SE	p			Coeff.	SE	p
X (Region)	a	0.92 [0.15, 1.70]	0.38	.020	c	2.04 [0.73, 3.34]	0.65		.003
					c'	1.38 [0.12, 2.65]	0.63		.033
M (MHBS)					b	0.70 [0.25, 1.16]	0.22		.003
Model summary		$R^2 = .33$ $F(1, 48) = 5.79, p = .020$			$R^2 = .56$ $F(2, 47) = 10.80, p < .001$				
Sobel Test $Z = 1.85, p = .064$									
Indirect Effect ( $a \times b$ ) = 0.65 [0.09, 1.63], $SE = 0.38$									

Note. Coefficients are unstandardized; Honor Region was coded 1 and Non-Honor Region was coded 0; brackets contain the lower limit and upper limit for 95% confidence intervals for the effects; indirect effect confidence intervals and standard errors were calculated using 10,000 bootstrap samples.

relationship between regional differences and participants' endorsement of the honor-related outcomes.

Future research should examine how women internalize and participate in the creation and maintenance of honor beliefs. Evidence suggests women also internalize [masculine] honor beliefs and participate in reinforcing men's honor beliefs (e.g., Barnes, Brown, & Osterman, 2012; Barnes, Brown, & Tamborski, 2012), but women are unlikely to participate in the same [honor] behaviors as men. Thus, future research should examine both women's honor and their role in men's honor beliefs and behaviors.

Two of our key variables (i.e., Region: urban, suburban, rural; and Sex: male, female) depended on participants' honesty and accuracy. We cannot be certain participants were honest and accurate in their responses. Indeed, research has shown that overtly listing eligibility requirements (e.g., participants' sex) can have negative effects on data integrity (Siegel, Navarro, & Thomson, 2015). However, interactive computer-based experiments are especially effective in improving overall data quality (Peer, Samat, Brandimarte, & Acquisti, 2015). As such, future research should strive to control for potential issues with online data collection by adding interactive manipulation checks such as having the participants list their zip code (i.e., for confirming their location) and/or having participants list their preferred pronoun (e.g., he, she, they) in order to increase the overall quality of data collected via online crowdsourcing services.

Another limitation is perhaps in the way honor and nonhonor states are distinguished. Future research could uniquely assess regional differences in masculine honor beliefs by reimagining the traditional approach of dividing states according to the honor/nonhonor designations typically used in the literature (e.g., Cohen & Nisbett, 1994; Nisbett, 1993; Nisbett & Cohen, 1996). More specifically, future research could map of honor levels unique to each state – which could potentially provide more nuance and variability for this variable. Although the extant literature has not done this, researchers (Dafoe & Caughey, 2011) have created honor levels of United States Presidents. Perhaps a

similar method could be used to create honor levels at the state level.

Despite these limitations, our study contributes to the literature examining the ideology and manifestations of masculine honor. As previously discussed, there is a paucity of research examining the link between cultural and individual differences with respect to honor beliefs. Our study demonstrated that individual differences in adherence to masculine honor beliefs mediate the relationship between regional differences and honor-related responses. Additional research is needed to further examine the role of individual endorsement of masculine honor beliefs in predicting violent responses to threat and insult, as well as endorsement of social policies sanctioning violence, for both men and women within honor and non-honor cultural regions.

### 5. Conclusion

We found that individual differences in masculine honor ideology explain the regional differences White men show on measures of honor-related outcomes. While masculine honor ideology may have been born in regions traditionally defined as cultures of honor, there is variation in adherence to this ideology both between and within honor and non-honor cultures. Assessing this individual variation provides the ability to better understand the nuance in masculine honor beliefs and the intra- and interpersonal consequences of adherence to these beliefs. Our study extends the notion of cultures of honor beyond their regional boundaries, and exemplifies the utility of conceptualizing honor as a psychological construct embedded within individuals. This provides the foundation for research to more broadly examine forms and manifestations of honor ideology as individual differences that may or may not reside in regions of the world traditionally defined as “cultures of honor.”

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