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Living Dangerously: Culture of Honor, Risk-Taking, and the Nonrandomness of "Accidental" Deaths

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Abstract

Two studies examined the hypothesis that the culture of honor would be associated with heightened risk taking, presumably because risky behaviors provide social proof of strength and fearlessness. As hypothesized, Study 1 showed that honor states in the United States exhibited higher rates of accidental deaths among Whites (but not non-Whites) than did nonhonor states, particularly in nonmetropolitan areas. Elevated accidental deaths in honor states appeared for both men and women and remained when the authors controlled for a host of statewide covariates (e.g., economic deprivation, cancer deaths, temperature) and for non-White deaths. Study 2, likewise, showed that people who endorsed honor-related beliefs reported greater risk taking tendencies, independent of age, sex, self-esteem, and the big five.

Keywords

culture of honor, manhood, masculinity, risk taking, accidental deaths

The circumstances that require men to prove their manhood are numerous and varied, and this fact renders manhood a volatile social status that must be constantly upheld with demonstrations of toughness and bravery (e.g., Bosson, Vandello, Burnaford, Weaver, & Wasti, 2009; Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008; Weaver, Vandello, Bosson, & Burnaford, 2010; see also Archer, 1994). Acts of physical aggression constitute one means by which men prove their masculine status because such behaviors convey to the self and others that a man is strong, fearless, and willing to act despite risks to personal safety (e.g., Bosson et al., 2009). Dangerous behaviors, such as motorcycle riding without a helmet and mountain climbing without a partner, represent another class of masculinity-confirming behaviors because their performance, like overt acts of aggression, demonstrates one's strength and fearlessness.

The problem with engaging in excessive risk taking, of course, is that it can sometimes be deadly. In this article, our primary interest is in how deaths associated with accidental causes (automobile accidents, falls, electrocutions, etc.) might be facilitated by the social dynamics underlying the culture of honor, a characteristic of societies that place special emphasis on the aggressive defense of reputation (Cash, 1941; Fischer, 1989; Nisbett, 1993; Nisbett & Cohen, 1996; Wyatt-Brown, 1982). We reasoned that insofar as these "accidental" deaths are more frequent in so-called honor states and not attributable to regional differences in other variables, they might reflect the influence of a cultural ideology that places a premium on proving that one is strong and fearless.

To recapitulate what has been more fully explained elsewhere (e.g., Cash, 1941; Fischer, 1989; Nisbett, 1993; Nisbett & Cohen, 1996; Wyatt-Brown, 1982), economic factors and pervasive lawlessness in the southern and western United States produced an insecure social environment that helped perpetuate the cultural ideology of honor of the Ulster Scots (or "Scotch-Irish"), who immigrated to the United States in great numbers during the 18th century (Fischer, 1989). This ideology of honor emphasized the relentless, and sometimes violent, defense of masculine reputation, which is presumably a social adaptation to an environment characterized by scarce resources, frequent intergroup aggression (e.g., raiding), and the absence of the rule of law. Social institutions (Cohen & Nisbett, 1997), gender identity schemas (Brown & Osterman, in press), and beliefs about society's support for honor-restorative aggression (Vandello, Cohen, & Ransom, 2008) have been cited as a few of the mechanisms by which this preoccupation with the defense of honor persists over time, and studies have demonstrated the tendency for people (White males, in particular) from honor states to respond to reputation threats with higher levels of hostility and violence compared to

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people from nonhonor states (e.g., Brown, Osterman, & Barnes, 2009; Cohen & Nisbett, 1994; Cohen, Nisbett, Bowdle, & Schwarz, 1996; Nisbett, Polly, & Lang, 1995).

Although prior culture-of-honor research has predominantly focused on retaliatory aggression (e.g., Brown et al., 2009; Cohen et al., 1996), and although such aggression might contribute to some of the accidental deaths we examine below (e.g., instances of retaliatory road rage), it could be that a preoccupation with proving personal honor compels men to act riskily in other contexts as well, whether these actions are preceded by a challenge—e.g., "What's wrong McFly? Chicken?" (Gale, Canton, & Zemeckis, 1989)—or not. Exposing oneself to potentially deadly situations provides social proof that one is strong and fearless, and because this proof is such a salient concern (especially for men) in cultures of honor, people living in such cultures could suffer accidental fatalities at higher rates than people living elsewhere. Consistent with this hypothesis, Roebuck and Murty (1996) found that sociocultural scripts concerning the defense of masculine reputation played a key role in the recidivism of White male drunk drivers. Other studies have considered regional differences in safety and health-related risk taking, but these studies focused on the role of religious based fatalistic beliefs and have reported inconsistent results (Cohen & Nisbett, 1998; Sims & Baumann, 1972).

Finally, we should note that although our discussion of cultural norms associated with risk taking has been focused on issues of greatest relevance to the defense of masculine identity, these norms have implications for both men *and* women. First, some research using non-American samples suggests that conformity to the masculine stereotype predicts risk taking independent of biological sex (e.g., Granié, 2009; Özkan & Lajunen, 2006; Raithel, 2003). Insofar as conformity to stereotypes can occur among those to whom they do not directly apply (e.g., Bargh, Chen, & Burrows, 1996; see also Bem, 1975), and to the extent that environmental primes and general social pressures to exhibit "manly" behaviors (e.g., strength and fearlessness) are more pervasive within honor states than within nonhonor states, it might not be surprising for the predicted regional pattern in accidental deaths to emerge among women as well as men. Second, because the outcomes we are examining in Study 1 are death rates that do not discriminate between people who suffered accidental fatalities because of their *own* risk taking or because of the risk taking of others, we cannot be sure who the precise *cause* of these deaths is. Thus, women in honor states might exhibit elevated accidental deaths because they are (wittingly or unwittingly) adhering to behavioral scripts associated with "manly" virtues, or because the risky behaviors *of men* cause women to die as victims at higher rates in honor states. The women-as-risk-takers and women-as-victims interpretations cannot be conclusively tested with the kinds of data available to us at the statewide level, which is our focus in Study 1. Because of this limitation, we address this issue further at the individual level in Study 2.

Study 1

In Study 1, we examined deaths classified as "accidental" by the U.S. Centers for Disease Control and Prevention (CDC) as a function of the honor or nonhonor classification of each U.S. state. Although our primary analyses focus on statewide accidental death rates across genders as a function of culture-of-honor status, we also examine death rates separately for males and females. In addition, because theory and prior research suggests that the honor classification of a state should only be relevant for outcomes among Whites, we hypothesized that honor states would exhibit increased accidental deaths among Whites, but not among non-Whites.[1]

Method

Data

Our analyses relied on cause-of-death data compiled by the CDC, which were coded according to the most recent revision of the International Classification of Diseases (i.e., ICD-10 codes), and which include the years 1999 through 2006. Only deaths associated with *unintended, external causes* (i.e., "Transport accidents" [code V01-V99] and "Other external causes of accidental injury" [code W00-X59]) were examined.[2] Transport accidents include those involving pedestrians, motorcyclists, automobiles, water vehicles, and others. Non-transport accidents include accidental deaths associated with falls, exposure to inanimate and animate forces, drowning, burning, overexertion, and the like. A full list of ICD-10 codes is available from the CDC's website. The death rates we report were calculated per 100,000 persons and adjusted for age based on the U.S. standard population in the year 2000.

We used Cohen's (1998) approach to distinguishing honor states from nonhonor states. The states located in the southern and western census regions of the country (i.e., South Atlantic, East South Central, West South Central, Mountain, and Pacific), except for Alaska and Hawaii, were categorized as honor states; states located in the northern part of the country (i.e., New England, Middle Atlantic, East North Central, and West North Central), plus Alaska and Hawaii, were identified as nonhonor states. To measure honor status in a more continuous fashion, some researchers have used Gastil's (1971) southern cultural influence index (e.g., Nisbett & Cohen, 1996). Although Gastil's index has been criticized (e.g., Loftin & Hill, 1974), it is, at present, the only continuous indicator of the culture of honor available for U.S. states. By using Cohen's (1998) dichotomous classification *and* Gastil's continuous index, we hoped to provide converging evidence for our predictions.

Prior research has shown that honor states differ from nonhonor states on a number of variables (e.g., Brown et al., 2009; Cohen, 1998), each of which could serve as an alternative explanation for any regional differences we might observe. We attempted to eliminate these alternative explanations by taking into account a host of state-level controls, including the proportion of individuals living in rural areas (U.S. Census

Table 1. Intercorrelations Among and Descriptive Statistics for Study 1 Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. CHC	–												
2. SCI	.69**	–											
3. Rurality	.01	.09	–										
4. Temperature	.47**	.74**	−.21	–									
5. Economic	.47**	.63**	.31*	.39**	–								
6. Cancer	−.01	.26†	.35*	.10	.32**	–							
7. HPSA	.37**	.33*	.20	.16	.55**	−.07	–						
8. Speed	.41**	.24†	.13	.06	.28†	−.24†	.61**	–					
9. Auto-travel	.17	.06	.56**	−.06	.11	.00	.41**	.33*	–				
10. Police	.17	.24†	−.48**	.33*	.11	−.08	.31*	.23	−.20	–			
11. Accidents	.58**	.68**	.51**	.34*	.69**	.20	.64**	.42**	.43**	.02	–		
12. Transport	.59**	.66**	.55**	.34**	.68**	.20	.67**	.51**	.54**	.06	.92**	–	
13. Nontransport	.43**	.55**	.32*	.26†	.53**	.15	.44**	.21	.19	−.04	.86**	.60**	–
M	–	17.80	0.28	52.24	0.00	196.74	0.14	65.06	0.00	32.38	39.66	18.13	21.53
SD	–	9.04	0.15	8.15	.79	13.73	0.08	4.50	0.84	6.54	8.88	5.62	4.27

Correlations are based on age-adjusted state-level data for Whites.
For CHC = culture-of-honor classification (0 = *nonhonor state*; 1 = *honor state*); SCI = Gastil's (1971) southern cultural influence index; Rurality = proportion of population living in rural areas; Temperature = mean annual temperature; Economic = economic deprivation; Cancer = number of cancer-related deaths per 100,000 persons; HPSA = proportion of population living in a health professional shortage area; Speed = Average speed limit across road types; Auto-Travel = composite auto-travel variable; Police = number of police officers per capita; Accidents = total fatal accidents per 100,000 persons; Transport = transportation accidents per 100,000; NonTransport = nontransportation accidents per 100,000.
† < .10. * $p < .05$. ** $p < .01$.

Bureau, 2000), as rurality might be associated with treacherous roadways and diminished access to medical care; mean annual temperatures (National Oceanic and Atmospheric Administration, 2000), as hotter temperatures could be linked with aggressive driving; economic deprivation (a composite of poverty rates [National Center for Education Statistics for 2000 and average of 2004–2006], unemployment rates [U.S. Bureau of Labor Statistics, 2000, 2004], median household incomes [U.S. Census Bureau, 2000, 2004], and proportion of individuals with at least high school degrees [National Center for Education Statistics, 2000, 2004]; $\alpha = .88$), as economically deprived states might have fewer resources for promoting their residents' safety; age-adjusted cancer death rates for 1999 through 2006 (obtained from the CDC's Compressed Mortality File; Center for Disease Control and Prevention, 1999–2006), as higher accidental deaths might simply reflect higher mortality rates that have nothing to do with cultural ideology of honor;[3] and the proportion of each state's population living in a primary health care professional shortage area (HPSA; current data obtained from the U.S. Department of Health and Human Services, Health Resources and Services Administration, 2011), as accidental deaths might be more prevalent in areas with fewer healthcare resources. Finally, for analyses of transport-related accidents, three additional covariates were included: (a) average state speed limits (current data obtained from the Insurance Institute for Highway Safety, 2011), (b) a composite auto-travel variable (obtained from the U.S. Department of Transportation's Federal Highway Administration; an average of the number of vehicles owned [2006] and miles traveled per capita [2005]), and (c) number of police officers per capita (data for 1996 based on U.S. Census Bureau estimates obtained from www.Allcountries.org).

Results and Discussion

We tested the association between the culture of honor and accidental deaths using two indicators: (a) Cohen's (1998) dichotomous, culture-of-honor classification (CHC) and (b) Gastil's (1971) continuous, state-level measure of southern cultural influence (SCI), along with the covariates described above. Intercorrelations among and descriptive statistics for all study variables appear in Table 1. For the sake of brevity, only results related to our focal predictors (i.e., CHC and SCI) are presented in the text; statistics for all study variables are displayed in Tables 2 and 3.

Accidental death rates for Whites varied widely across states (from 22.80 per 100,000 to 60.20 per 100,000); thus, there was substantial interstate variability to be explained. We found that CHC was a significant predictor of these deaths, such that Whites in honor states ($M = 42.03$) experienced more accidental deaths than Whites in nonhonor states ($M = 36.89$), $\beta = .29$, $t = 3.17$, $p = .003$, $d = 0.97$, and this pattern was corroborated by the SCI index, $\beta = .54$, $t = 4.35$, $p < .001$, $d = 1.33$. Furthermore, this effect obtained among men *and* women, whether the culture of honor was operationalized using the CHC or SCI ($ps \leq .008$). In contrast, and consistent with prior research, neither CHC, $\beta = .06$, $t = 0.53$, *ns*, nor SCI, $\beta = -.03$, $t = -0.17$, *ns*, significantly predicted accidental deaths among non-Whites, even when non-White males and females were examined separately.[4]

The nature of these data precludes our making firm causal conclusions about the role of the culture of honor in accidental deaths, as we cannot hope to account for all possible confounding variables. However, to the extent that any statewide confounds would affect persons of all demographic groups

Table 2. Standardized Regression Results for Accidental Deaths Using Cohen's (1998) Culture-of-Honor Classification (CHC)

Accidents	Rurality	Temperature	Economic	Cancer	HPSA	Speed	Auto-Travel	Police	Culture of Honor
Total (White)	.42**	.18†	.17	.00	.32**	–	–	–	.29**
Male	.42**	.20*	.17	.03	.34**	–	–	–	.25**
Female	.43**	.09	.18	.00	.27*	–	–	–	.36**
Total (Non-White)	.20†	−.26*	−.11	.11	.72**	–	–	–	.06
Male	.20†	−.19	−.10	.13	.73**	–	–	–	.04
Female	.21†	−.36**	−.13	.08	.67**	–	–	–	.11
Transport									
Total (White)	.43**	.18*	.18†	.02	.23*	.08	.15	.09	.26**
Male	.44**	.18*	.18†	.02	.25*	.04	.15†	.10	.26**
Female	.40**	.16†	.20†	.05	.15	.20*	.14	.05	.24**
Nontransport									
Total (White)	.24	.10	.22	.00	.18	–	–	–	.21
Male	.23	.14	.23	.03	.21	–	–	–	.14
Female	.25†	−.02	.21	−.01	.11	–	–	–	.31*

Rurality = proportion of population living in rural areas; Temperature = mean annual temperature; Economic = economic deprivation; Cancer = number of cancer-related deaths per 100,000 persons; HPSA = proportion of population living in a health professional shortage area; Speed = Average speed limit across road types; Auto-Travel = composite auto-travel variable; Police = number of police officers per capita; CHC = culture-of-honor classification (0 = *nonhonor state*; 1 = *honor state*).
†.10 > $p \geq .05$; *$p < .05$; **$p < .01$.

Table 3. Standardized Regression Results for Accidental Deaths Using Gastil's (1971) Measure of Southern Cultural Influence (SCI)

Accidents	Rurality	Temperature	Economic	Cancer	HPSA	Speed	Auto-Travel	Police	Culture of Honor
Total (White)	.37**	−.06	.09	−.07	.34**	–	–	–	.54**
Male	.37**	−.02	.09	−.03	.36**	–	–	–	.49**
Female	.38**	−.15	.09	−.08	.30**	–	–	–	.59**
Total (Non-White)	.20†	−.22	−.09	.09	.73**	–	–	–	−.03
Male	.20†	−.17	−.09	.12	.74**	–	–	–	.00
Female	.22†	−.27†	−.07	.05	.70**	–	–	–	−.07
Transport									
Total (White)	.34**	.00	.14	−.03	.24*	.10	.19*	.05	.42**
Male	.34**	.00	.13	−.02	.26*	.05	.19*	.05	.43**
Female	.32**	.02	.17	.01	.15	.23*	.18*	.02	.35**
Nontransport									
Total (White)	.19	−.15	.12	−.06	.19	–	–	–	.52*
Male	.19	−.07	.14	−.01	.21	–	–	–	.42*
Female	.20	−.31	.10	−.09	.13	–	–	–	.64**

Rurality = proportion of population living in rural areas; Temperature = mean annual temperature; Economic = economic deprivation; Cancer = number of cancer-related deaths per 100,000 persons; HPSA = proportion of population living in a health professional shortage area; Speed = Average speed limit across road types; Auto-travel = composite auto-travel variable; Police = number of police officers per capita; CHC = culture-of-honor classification (0 = *nonhonor state*; 1 = *honor state*).
†.10 > $p \geq .05$; *$p < .05$; **$p < .01$.

similarly, controlling for accidental deaths among non-Whites should strengthen our confidence that we are observing a culture-of-honor phenomenon among Whites, not simply a spurious association. To test this idea, we regressed White accidental deaths on CHC and (separately) SCI, controlling for non-White accidental deaths. Although non-White deaths were predictive of White deaths, $\beta = .40$, $t = 3.83$, $p < .001$, $d = 1.12$, so too was CHC, $\beta = .52$, $t = 4.91$, $p < .001$, $d = 1.43$. Likewise, SCI was a significant predictor of White accidental deaths, $\beta = .66$, $t = 7.80$, $p < .001$, $d = 2.28$, controlling for non-White accidental deaths, $\beta = .45$, $t = 5.35$, $p < .001$, $d = 1.56$. Thus, although we cannot measure all possible confounds directly, controlling for rates of non-White accidental deaths should strengthen our inference about the role of culture of honor in accidental deaths among Whites.

Keeping our focus on deaths among Whites, we next examined whether culture-of-honor status was a significant predictor of both transport and nontransport accidents. For our analysis of transport accidents, we included three additional covariates: (a) state average speed limits, (b) the composite vehicle-travel variable, and (c) number of police officers per capita. CHC was a significant predictor in this analysis of transport accidents,

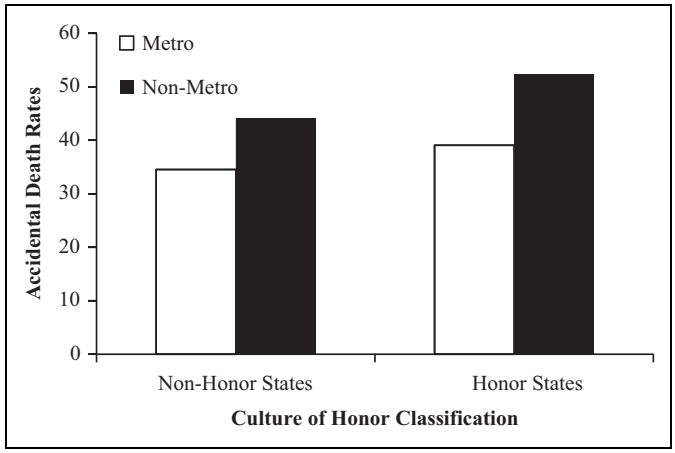

Figure 1. Age-adjusted accidental death rates per 100,000 persons for Whites as a function of culture-of-honor classification and metropolitan/nonmetropolitan status.

with Whites in honor states ($M = 19.46$) having significantly higher transport-related accidental deaths than Whites in nonhonor states ($M = 16.57$), $\beta = .26$, $t = 3.19$, $p = .003$, $d = 1.01$. Importantly, this finding was corroborated by the SCI index, $\beta = .42$, $t = 3.91$, $p < .001$, $d = 1.24$, and analogous patterns obtained when White males and females were analyzed separately ($ps \leq .006$). Eliminating the transport-related covariates from the model and focusing only on nontransport accidents, we found that CHC was a significant predictor of death rates, but only among White females, $\beta = .31$, $t = 2.07$, $p = .044$, $d = 0.63$. SCI, on the other hand, significantly predicted nontransport accidents whether White males and females were analyzed together or separately ($ps < .05$).

Accidental Deaths in Metro Versus Nonmetro Areas

Nisbett and Cohen (1996) found that homicide rates were especially pronounced in small towns in honor states, where, among other reasons, inhabitants have greater reason to be concerned with their reputations being known throughout their communities. To test for a similar moderator, we analyzed accidental deaths according to whether they occurred in areas classified by the CDC as metro (counties in metro areas with populations greater than or equal to 50,000) or nonmetro (counties with urban populations less than 50,000), in a two-way, repeated measures analysis of covariance (ANCOVA).[5] Cohen's (1998) CHC variable was the between-states factor, and whether the deaths occurred in metro or nonmetro areas was the within-states factor. Annual temperature, economic deprivation, cancer death rates, and HPSA were entered as covariates. Consistent with prior research on homicide, the between-within interaction was significant, $F(1, 42) = 5.07$, $p = .030$, with accidental death rates among Whites being highest in nonmetro regions of honor states (see Figure 1). Significant covariates in the model included economic deprivation and HPSA ($ps \leq .024$). Importantly, the culture-of-honor association with accidental deaths was significant within metro, $F(1, 42) = 6.11$, $p = .018$, $d = 0.90$, and nonmetro regions, $F(1, 42) = 15.22$, $p < .001$, $d = 1.43$, though the interaction indicates that the latter association is significantly larger. Thus, from all of these analyses, it appears that the culture of honor has implications for fatalities that result from unintentional causes, a unique finding in the culture-of-honor literature.

Study 2

The statewide analyses of Study 1 were predicated on two assumptions: (a) the accidental deaths cataloged by the CDC are, at least partially, reflective of underlying risk-taking behaviors and (b) the United States can be divided into regions that differ on the degree to which they are characterized by an ideology of honor. Although we have built a case for the tenability of these assumptions, more convincing evidence for a link between the culture of honor and risk taking might emerge if we assessed these variables directly, at the individual level. To this end, we conducted Study 2 to examine whether higher levels of risk taking might be found among individuals who endorse the ideology of honor, using a self-report honor ideology scale recently devised and validated by Barnes, Brown, and Osterman (2011).

Method

Participants

Participants were 103 undergraduates (79 females) from the University of Oklahoma who received course credit for taking part; their mean age was 18.6 ($SD = 0.8$) years, and the majority identified themselves as White/Caucasian (73.5%), Asian/Pacific Islander (9.8%), Hispanic/Latino (6.9%), Black/African American (4.9%), Native American (2.9%), and Other (2%). As in Study 1, our primary analyses are limited to self-identified White/Caucasians or Hispanic/Latinos. One participant did not complete all of the measures and was excluded, leaving a final sample 81 participants (62 females).

Measures and Procedure

All participants completed the Honor Ideology for Manhood Scale (HIM; Barnes et al., 2011) and the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) during an online testing session at least 2 weeks prior to the laboratory portion of the study. The HIM contains 16 statements ($\alpha = .91$) derived from prior research on the U.S. culture of honor (e.g., Cohen & Nisbett, 1994). Eight items reference beliefs about the nature of a "real man" (e.g., "A real man doesn't let other people push him around"), and the other eight items reference beliefs about conditions under which men are justified in engaging in retaliatory violence (e.g., "A man has the right to act with physical aggression toward another man who calls him an insulting name"). The items of the HIM are not self-descriptive, but ideological. Thus, both men and women can readily endorse

(or not endorse) these items. Respondents indicate their level of agreement with these items on scales ranging from *strongly disagree* (= 1) to *strongly agree* (= 9). The RSE is a 10-item scale ($\alpha = .89$) containing statements regarding self-worth, to which respondents indicate their level of agreement on scales anchored with *strongly disagree* (= 1) and *strongly agree* (= 4).

In the laboratory, participants were told that the study was designed to explore certain types of decision making. They completed several questionnaires (randomized for each participant), including the Domain-Specific Risk-Taking Scale (DOSPERT; Weber, Blais, & Betz, 2002) and the Big Five Inventory (BFI; John, Donahue, & Kentle, 1991). The DOSPERT consists of 40 risky behaviors (e.g., bungee jumping off a bridge, gambling away a week's income) that span five domains: ethical, financial, health/safety, recreational, and social ($\alpha = .79$). Participants estimated the likelihood they would perform each behavior if given the opportunity. The BFI is a 44-item index of the five personality dimensions of extraversion ($\alpha = .87$), agreeableness ($\alpha = .79$), conscientiousness ($\alpha = .83$), neuroticism ($\alpha = .84$), and openness ($\alpha = .84$) that has shown strong consistency and predictive validity in previous studies. After completing these measures and a task related to another study, participants were debriefed and excused.

Results and Discussion

To examine whether endorsement of honor-related beliefs predicts enhanced risk taking at the individual level, we regressed DOSPERT scores on the HIM, controlling for age, sex, self-esteem, and the BFI subscales. Consistent with our predictions, the HIM was positively associated with risk taking, $\beta = .26$, $t = 2.37$, $p = .02$. Only agreeableness ($\beta = -.32$, $t = 2.58$, $p = .01$) and extraversion ($\beta = .32$, $t = 2.70$, $p < .01$) were significant covariates. These individual-level analyses thus support our interpretation of the accidental death rates at the statewide level in Study 1. Also, because most of the participants in Study 2 were women, these data suggest that the significant association between culture of honor and accidental death rates among women in Study 1 was not simply a function of women being passive victims of male risk taking.

General Discussion

Despite the argument that men from every cultural background are motivated to prove their masculine identity (e.g., Bosson et al., 2009; Vandello et al., 2008), research suggests that men (White men, in particular) in the southern and western United States who have been influenced by an ideology of honor are especially driven to achieve this goal (e.g., Cohen et al., 1996; Cohen & Nisbett, 1994; Nisbett et al., 1995). Consequently, men from culture-of-honor regions might be more prone to engage in risky behaviors that sometimes lead to death, relative to men from nonculture-of-honor regions, because such behaviors signify that one possesses the "manly" attributes of strength and courage (Bosson et al., 2009).

Considering the likelihood that men's risky behaviors and masculine risk-taking schemas also affect women, we tested our culture-of-honor hypothesis by examining accidental deaths across genders. In addition, we controlled for a host of statewide variables that might account for the expected differences in accidental deaths (e.g., rurality, temperature, economic deprivation). As hypothesized, we found that state honor status (assessed in two different ways) significantly predicted accidental deaths among Whites from 1999 to 2006, and that this regional difference was especially pronounced among Whites living in nonmetropolitan areas. Consistent with previous research on regional differences in violence, culture of honor was not associated with accidental deaths among non-Whites, and its association with death rates among Whites even persisted when we controlled for non-White death rates.

In terms of absolute magnitude, culture of honor appears to have a stronger association with White male risk taking than with White female risk taking—specifically, the difference between covariate-adjusted accidental death rates among White males in honor states ($M = 57.68$) and non-honor states ($M = 51.56$) was about 1.5 times as large as the same difference among White females in honor states ($M = 27.42$) and non-honor states ($M = 23.26$). Even so, the association between culture of honor and female accidental deaths was statistically significant in Study 1. This association was further supported at the individual level in Study 2, which examined self-reported risk taking and behavioral inhibition within a sample of White college students, most of whom were females. Although our hypotheses about the relation between culture of honor and risk taking concern social dynamics surrounding the promotion and preservation of masculine identities, our evidence regarding excessive risk taking among women can be understood in at least two ways. First, some evidence indicates that the degree of individuals' conformity to the masculine stereotype predicts risk taking independent of biological sex (Granié, 2009; Özkan & Lajunen, 2006; Raithel, 2003), and insofar as conformity to the masculine gender role can be heightened by situational primes (Bargh et al., 1996) and social pressures (e.g., Bem, 1975) that are, conceivably, more pronounced in honor states than nonhonor states, it seems plausible that the accidental deaths of women result from their mimicking, wittingly or unwittingly, the risky behaviors of men. Second, even if women do engage in excessive risk taking themselves, it is also possible that they die as a consequence of men's dangerous actions, as would be the case if a husband crashed his car as a result of driving recklessly through traffic with his wife and children as passengers, or if a male maintenance worker electrocuted himself and his female coworker while working with live wires in a puddle of water.

Given these findings, what might be done to reduce accidental deaths arising from excessive risk taking by people socialized by an honor ideology? Although large-scale attempts at cultural engineering are unlikely to succeed, it might be possible to use the force of the culture of honor itself to promote the public welfare (see Apiah, 2010). Specifically,

perhaps interventions that shame people into safer behaviors (e.g., "Don't be a sissy, buckle up!"), or rely on strong, high status figures as models of responsible conduct would be effective at modifying social schemas and scripts about the meaning of strength and courage. Whether such an approach would effectively diminish accidental deaths in cultures of honor is uncertain, but it seems reasonable to infer from the present findings that merely including seatbelts in motor vehicles or warning labels on firecrackers might not be enough to prevent accidents in cultures that confer social status on those who are willing to throw caution to the wind and live dangerously. Thus, the cultural dynamic that we have captured in these studies reveals a threat to public health that goes beyond the risk of interpersonal violence documented in previous research and points to the possibility that life in honor-oriented societies is more treacherous than previously realized.

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Notes

1. Some culture-of-honor studies have distinguished between Whites of Hispanic and non-Hispanic origins, but others have not (e.g., Cohen et al., 1996). In our analyses, we include Whites of both Hispanic and non-Hispanic origins. Analyses that included only Whites of non-Hispanic origins did not differ appreciably from those reported here.
2. Having little to do with risk taking, deaths caused by "exposure to forces of nature" (e.g., hurricanes, tornadoes, earthquakes) were excluded from the data.
3. Cancer death rates were obtained separately for Whites and non-White for use in White and non-White analyses, respectively.
4. Taking the natural log of accidental deaths among non-Whites reduced the skewness of this variable and appeared to improve the degree to which the regression assumption of homoscedasticity was satisfied. Even with this modification, the results remained nonsignificant, both at the aggregate level, and when non-White males and females were analyzed separately.
5. Because of the absence of nonmetro regions in New Jersey and Rhode Island, these states were excluded from the analysis.

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