

Daly, M. & Wilson, M. (2010) Cultural inertia, economic incentives, and the persistence of “southern violence”. Pp. 229-241 in M. Schaller, A. Norenzayan, S. Heine, T. Yamagishi & T. Kameda, eds., *Evolution, culture, and the human mind*. New York: Psychology Press.

15

Cultural Inertia, Economic Incentives, and the Persistence of “Southern Violence”

MARTIN DALY and MARGO WILSON

HISTORY AND ECOLOGY; IDEALISM AND MATERIALISM

Cultural diversity challenges those wishing to apply insights from evolutionary theory to the study of human behavior. When we see that different human groups hunt with different technologies, raise different cultivars, and exclude different foodstuffs from the realm of the edible, for example, we can take the behavioral ecological approach and ask whether the people we observe are behaving like “optimal foragers” (e.g., Kaplan & Hill, 1992) only within the constraints of their culturally specific preferences, technical knowledge, and taboos. The cross-cultural diversity itself seems to require a different sort of explanation.

One popular response to this problem has been to insist that each culture can be “explained” only in terms of its unique history. According to Harris (1968), “By far the most sophisticated advocate ... and most effective defender” of “the historical-particularist position” was the anthropologist R. H. Lowie, who famously asserted, “Culture is a thing *sui generis* which can only be explained in terms of itself. ... *Omnis cultura ex cultura*” (Lowie, 1917, pp. 25–26). Such an extreme statement seems almost antiscientific, denying the possibility of principled cross-cultural analysis, but many anthropologists and sociologists have been attracted to such positions, perhaps as a way of defending their turf from the dual threats of psychological reductionism and Marxist materialism. And of course historical particularism has an undeniable grain of truth: Idiosyncratic historical trajectories surely *do* create cross-cultural differences that are “arbitrary” in the sense that nothing extrinsic to the cultural phenomenon itself presently favors maintaining it

in one form rather than another. Lexicon is the prototypical example: Why we say *dog* whereas our neighbors say *chien* has a strictly historical answer.

Cultural materialists such as Marvin Harris have taken a different tack, maintaining, "Cultures on the whole have evolved along parallel and convergent paths which are highly predictable from a knowledge of the processes of production, reproduction, intensification, and depletion" (Harris, 1977, p. xii). And indeed, many cross-cultural analyses (some of which have incorporated good phylogenetic controls) indicate that particular ecologies favor particular social practices, which, in conjunction with panhuman cognitive processes and emotions, lead to convergent cultural "syndromes" of similar institutions, ideologies, and values among peoples with distinct histories. The pastoral way of life, for example, seems conducive to a cultural syndrome entailing patrilocal polygynous marriage, bridewealth, patrilineal inheritance, blood feud, and a "culture of honor" whereby personal affronts warrant violent responses (Nisbett & Cohen, 1996; Peristiany, 1965).

Historical particularists like Lowie, cultural materialists like Harris, and even contemporary human behavioral ecologists like Smith, Borgerhoff Mulder, and Hill (2001) eschew explicit psychologizing. Cultural phenomena, however, require human actors on whom historical and/or ecological factors have their effects, so evolutionary and cultural psychologists have been revisiting some of these issues in their discussions of "evoked" culture versus "transmitted" culture (Gangestad, Haselton, & Buss, 2006). This distinction echoes an even older polarity, namely, that of materialism versus idealism (Harris, 1968): Are cultural differences primarily to be understood as responses to the incentive structure of the environment or as the consequences of different ways of thinking? The proposition that cultural phenomena are evoked is a materialist claim that they result from responses of a universal human nature to ecological and economic determinants. The proposition that cultural phenomena are transmitted implies the idealist claim that the attitudes, values, and construals of reality that one learns from others are the causes of one's behavior.

The fact that there is truth to both of these positions has not rendered debate moot. The question of how *much* truth each perspective contains arises with reference to each specific cultural phenomenon under investigation, and the issue is of more than academic interest. To the extent that a cultural phenomenon is evoked, it can be changed by manipulating economic incentives, but if it is more a matter of transmitted attitudes and values that cohere in a socially valued belief system, then it may persist despite changing conditions that make it functionally anachronistic. People's positions in these controversies, which are perhaps a reflection—or even a partial determinant—of their politics, have policy implications: Idealists tend to favor educational and "consciousness-raising" remedies for social problems, whereas those with more materialist views favor attacking economic "root causes."

HOMICIDE AND THE CULTURE OF HONOR IN THE SOUTHERN UNITED STATES

Homicide can usefully be viewed as a cultural phenomenon, because there are large cross-cultural differences in relevant behavior, attitudes, and values (Daly & Wilson,

1989; Nisbett & Cohen, 1996). Anthropological studies tell us that a lethal response to certain transgressions is justified—even obligatory—in some societies but deplored and punished severely in others. In the modern world, killing a personal antagonist (as distinct from killing in warfare or otherwise "in the line of duty") is generally stigmatized, but in some small-scale societies lacking centralized government and courts of law, it is instead valorized (e.g., Chagnon, 1988; Patton, 2000).

Large cross-cultural differences persist in the modern world. According to data from the World Health Organization (2002), per capita rates of homicide vary by a factor of more than one-hundred-fold across contemporary nation-states, and even in the developed world, the differentials are remarkable. The homicide rate in the United States, for example, has for decades been more than 5 times that prevailing in the European Union and more than 10 times that of Japan. Moreover, cross-national variability in the prevalence of homicide is demonstrably associated with variability in attitudes, such that homicide rates tend to be highest where personal violence is most legitimized (e.g., McAlister, 2006).

Indeed, cross-cultural diversity in both the attitudinal supports of homicidal violence and its prevalence can be striking even within a single modern nation-state. Criminologists have long been aware that homicide rates are substantially higher in the southern United States than in the northern states, and there has long been debate about whether this difference should be attributed to structural (economics, racial politics) or cultural (attitudes, values) factors (see, e.g., Lee, Bankston, Hayes, & Thomas, 2007). Perhaps the most popular explanation for this pattern attributes it to the poisonous legacy of slavery, but a fresh perspective has emerged from the ingenious multimethod research program of Richard Nisbett, Dov Cohen, and their collaborators (Cohen & Nisbett, 1994; Cohen, Nisbett, Bowdle, & Schwarz, 1996; Nisbett, 1993; Nisbett & Cohen, 1996; Nisbett, Polly, & Lang, 1995). By focusing on the behavior and attitudes of white men, these researchers have circumvented some of the complications engendered by U.S. race relations and have assembled a strong case that "white" southerners, but not northerners, adhere to a version of the "culture of honor" that we mentioned earlier.

The prototypical culture of honor (e.g., Peristiany, 1965) consists of a suite of interrelated attitudes, values, and norms, whereby personal and familial honor reside largely in being respected as one who will brook no trespass, regardless of the costs and risks that a response may entail. Such a value system tends to characterize patrilineal societies with strong fraternal interest groups, institutionalized feuding, bridewealth, a heavy emphasis on female chastity, and, most important, "self-help justice." It is particularly characteristic of peoples who rely primarily on livestock rather than on crops, especially those whose herds graze on relatively unproductive pasture, and it is in this way of life that the apparent rationale for such a value system resides. Because of both their mobility and their low density, pastoralists cannot rely on central authorities for policing and protection, and their herds tempt thievery, which must be deterred by sincere, credible threats of a violent response by those victimized or their kinsmen. How better to advertise such a threat than by manifesting a willingness to respond dangerously to even minor affronts?

The tradition of dueling is the classic manifestation of the culture of honor in the U.S. South, but contemporary behavior and attitudes reflect it, too. Cohen

and Nisbett (1994) showed, for example, that although southerners do not endorse violence more than northerners in all contexts, they are more approving of violent responses to trespassing, insults, and sexual advances against one's female partner or relatives. That this is not mere lip service was shown by an experiment in which undergraduate men at the University of Michigan who had been raised in the South responded very differently to a minor insult than those raised in the North, not just behaviorally and in questionnaire responses but physiologically as well: The southern men exhibited rapid cortisol and testosterone responses, whereas northerners were unaffected (Cohen, Nisbett, Bowdle, & Schwarz, 1996). And with regard to homicide, analyses by Nisbett (1993) and Lee et al. (2007) indicate that it is specifically in the context of "arguments" rather than "felonies" that white men from the southern states are more likely than their northern counterparts to kill.

What is the origin of these regional differences? Nisbett and his collaborators proposed that the answer resides in the ecological consideration that we discussed earlier: pastoralism. Citing historical evidence, they maintained that the North received its predominant economic and cultural influences from Puritans, Quakers, and Dutch farmers and townsmen with a strong ethic of neighborly cooperation, whereas those who settled the southern states were mostly "Scotch Irish" folk from the fringes of Britain who had made their living as herdsmen and to some extent continued to do so in the new world. These people brought with them an ethic of self-help justice, with its attendant notion that intimidatory capacity is central to manhood, and herding remained economically important in the southeast into the 19th century and in the southwest even longer. In short, white southerners and white northerners brought their cultural differences from Europe centuries ago and have transmitted those differences with sufficient fidelity that they persist to this day, even though their ecological foundations have now largely evaporated.

CULTURAL INERTIA IN THE ABSENCE OF MATERIAL FOUNDATIONS?

In our view, Nisbett and Cohen have unequivocally demonstrated that non-Hispanic, white U.S. southerners differ statistically from northerners in their attitudes and in their behavior, and we also agree that these differences are well characterized by saying that southerners adhere to a sort of culture of honor. The proposition that the culture's historical roots can be traced in this case, as in others, to the cost-benefit situation faced by pastoralists is more speculative, as Nisbett and Cohen acknowledged, but we have no quarrel with this idea either. The suggestion that we *do* want to challenge is this: that after its ecological origins have faded away, the culture of honor has nevertheless persisted for generations, in the absence of any material basis.

In their book's concluding section, Nisbett and Cohen reviewed their reasons for rejecting temperature, poverty, and slavery as useful explanations for southern violence and instead attributed its contemporary existence to more or less pure cultural transmission. Moreover, although they granted that the southern culture

of honor may yet fade away for want of an enduring materialistic rationale, that's not where they're placing their own bets:

Because culture is taken in without reflection, because we acquire it more by *absorbing* it than by studying it, the ultimate reason for why we do things (or why a behavior is functional) is often hidden from us. We do not reexamine cultural rules every generation or analyze how functionally adaptive they are before we internalize them. So, as long as they do not get us in too much trouble in some way that is manifest and as long as there is no far more attractive alternative, they will continue. Indeed, as long as there is social enforcement of the norms, it may be profitable to continue to behave in accord with such norms and costly to defy them even when one consciously, personally rejects them.

An important implication of that analysis is that one should speculate not merely on whether the culture of honor will wither when material circumstances cease to make it rational but also whether the culture of honor could maintain itself, or even grow, for nonmaterial reasons. (Nisbett & Cohen, 1996, pp. 93–94)

This proposal that the culture of honor may persist "for nonmaterial reasons" has caught the fancy of many readers, and despite Nisbett and Cohen's acknowledgment that it is speculative, it has become an iconic example of culture's alleged inertia in the absence of material supports. Evolutionists seem to be especially fond of citing it, perhaps to defuse naive "nature versus culture" objections. In an essay aimed at convincing sociologists that they need to become selectionists, for example, Runciman (1998, p. 183) cited Nisbett and Cohen (1996) as having shown that "a 'culture of honour' may persist even after the environment that gave rise to it has changed and there has evolved a set of institutions which deprive it of its previous function." Cosmides and Tooby (1999, p. 461) cited the same work very similarly in an essay aimed at clinical psychologists. And in an essay on "The adaptive nature of culture," Alvard (2003, p. 138) stated that the norms adhered to by southerners are

unlikely to be optimal in modern twenty-first century America. ... Granted that the difference between farmers and herders discussed in Nisbett and Cohen's book can be construed as ecological in origin, it is difficult to understand without invoking cultural processes why such differences persist generations after the subjects' ancestors ceased to engage in their respective subsistence tasks.

Gangestad et al. (2006, p. 91) also accepted this example as an instance of "transmitted culture" to suggest that the social transmission process may work by changing thresholds for the elicitation of "evoked culture." Norenzayan (2006, p. 126) replied that the real role of the evoked culture concept in this case is in Nisbett and Cohen's "origin story" and concluded,

The best explanation for the persistence of honor cultures is social transmission. ... Perhaps a common scenario across cultures is that ecological differences evoke an initial cultural response that adaptively varies but then is

picked up by processes of transmitted culture, amplified, and perpetuated even when the initial conditions are no longer present.

Finally, it was Nisbett and Cohen's proposal that a culture "could maintain itself, or even grow, for nonmaterial reasons" that inspired Richerson and Boyd (2005) to use this example as their opening hook in *Not by Genes Alone: How Culture Transformed Human Evolution*, a book that argued that evolutionists must pay more attention to the social transmission process. After summarizing Nisbett and Cohen's main results and arguments, these authors elaborated on how the story illustrates their own thesis, as follows:

Culture is crucial for understanding human behavior. ... Murder is more common in the South than in the North. If Nisbett and Cohen are right, this difference can't be explained in terms of contemporary economics, climate, or any other external factor. Their explanation is that people in the South have acquired a complex set of beliefs and attitudes about personal honor that make them more polite, but also more quick to take offense than people in the North. This complex persists because the beliefs of one generation are learned by the next. (Richerson & Boyd, 2005, p. 3)

INCOME INEQUALITY AND HOMICIDE RATES

What's wrong with these seemingly unexceptionable claims? Our only quarrel is with the suggestion that contemporary economics has been disposed of as a candidate explanation for the elevated rates of homicide in the U.S. South. It is certainly true that poverty and mean white per capita income are poor predictors of the variability in homicide rates that Nisbett and Cohen discussed, but there was never much reason to expect otherwise. Empirical studies of homicide and theoretical considerations have both suggested that it is not the average level of wealth that determines local homicide rates but *the degree to which that wealth is inequitably distributed*.

Gartner (1993, p. 205) summarized what homicide researchers have learned from multivariate, cross-national studies as follows: "Of the wide variety of political, economic, cultural, and social indicators included in these analyses, only one—*income inequality*—has shown a consistent (and positive) association with homicide rates." More recent cross-national analyses continue to tell the same story (Fajnzylber, Lederman, & Loayza, 2002; Messner, Raffalovich, & Schrock, 2002), and so do analyses within countries (Daly, Wilson, & Vasdev, 2001). Moreover, it is easy to understand why this should be so: Homicide rates reflect the intensity of male–male competition (Daly & Wilson, 2001; Eisner, 2003), and the intensity of competition is a function not of average well-being but of the *variability* among individuals in access to resources and hence of the (perceived) potential for gains from escalating one's competitive tactics.

How do these considerations apply to regional variation in U.S. homicide rates? Let us consider this question by following Nisbett and collaborators' dichotomization of the United States into 16 southern and 34 nonsouthern (henceforth called "northern") states. As one would expect, average income is not a significant predictor of homicide rates at the state level, and as Nisbett and Cohen's analysis suggests,

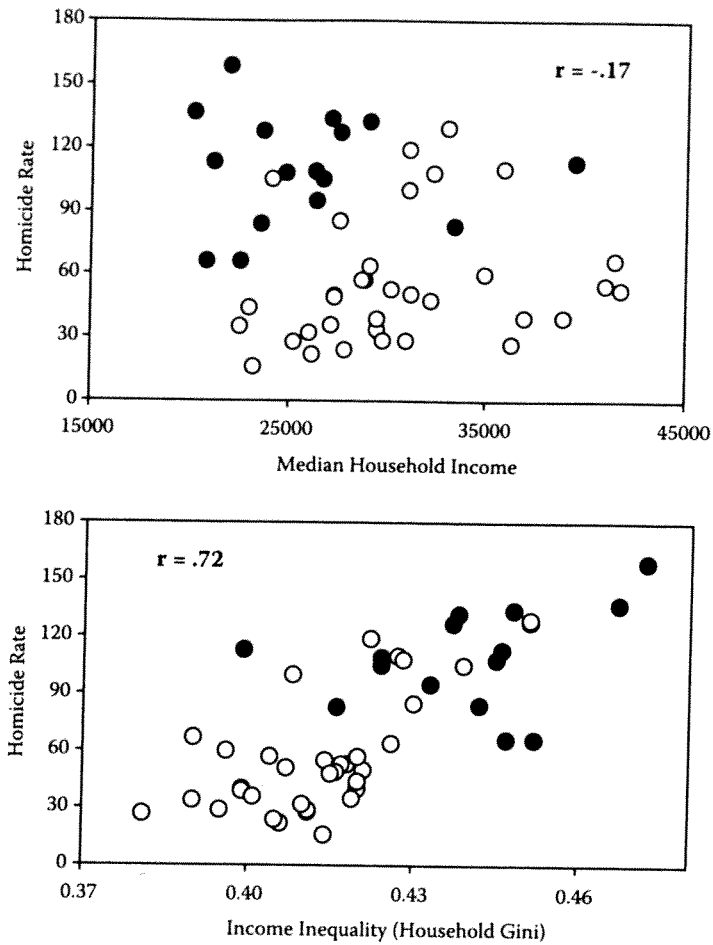


Figure 15.1 Mean homicide victimization rate per million persons per annum in southern (●) and northern (○) states, 1990, as a function of median household income in US\$ (top panel) and of the Gini index of income inequality among households (bottom panel). Homicide data are from the FBI's Supplementary Homicide Reports: 1980–2006 (FBI, n.d.). Income data courtesy of Bruce Kennedy (Public Health, Harvard University); see Kennedy, Kawachi, and Prothrow-Stith (1996).

this variable cannot account for the large difference between south and north (see Figure 15.1). The standard measure of income inequality, the Gini index, however, performs much better. It accounts for slightly more than half of the variance in homicide rates among states (see Figure 15.1), and when its effect is partialled out, the difference in mean homicide rates between south and north is reduced from 56 deaths per million persons per annum to fewer than 20.

We presented these analyses at the "Mind, Culture, and Evolution" conference at the University of British Columbia in 2004, and Richard Nisbett immediately raised an objection. One of the strengths of the Nisbett and Cohen research

program has been that by confining attention to white men, they have highlighted regional variations that cannot be artifacts of racial composition, and Nisbett argued that we must do the same if we wished to show that the effects of income inequality account for regional differences. Now, one might protest that insofar as male–male competition takes place within a multiracial pool, isolating racial categories could eliminate a relevant component of inequality, but let us accept Nisbett's argument and look at the situation for white men considered separately. As it happens, the results are essentially unchanged: Average income again fails to account for the variability between states or regions, whereas income inequality accounts for both (see Figure 15.2). If income inequality is ignored, the average southern state has a mean rate of white male homicide victimization that exceeds

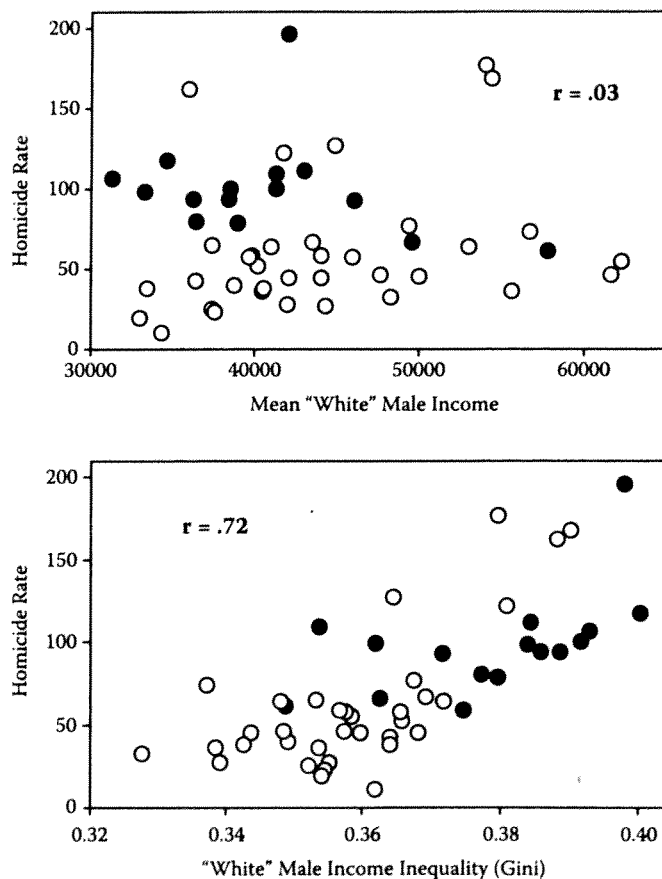


Figure 15.2. Mean homicide victimization rate per million white adult males per annum in southern (•) and northern (o) states, 1989–1991, as a function of 1990 mean white male income in US\$ (top panel) and as a function of 1990 white male income inequality (Gini index). Homicide data are from the FBI's Supplementary Homicide Reports: 1980–2006 (FBI, n.d.). Income data courtesy of Angus Deaton (Economics, Princeton University); see Deaton and Lubotsky (2003).

that for northern states by 38 deaths per million men per annum, and the difference is highly significant ($t_{48} = 3.11, p = .003$). The Gini index, however, again accounts for just over half the between-state variance, and if this single variable's effect is partialled out, the south–north difference falls to fewer than 2 homicides per million white men per annum and is no longer statistically significant ($t_{48} = 0.17, p = .87$). It is particularly striking that the correlation between the Gini index and homicide is undiminished as a result of narrowing our focus from the entire population to white men, despite the fact that both the average level of inequality and its range of values across states are thereby reduced.

Cohen (personal communication, Aug. 8, 2007) drew our attention to the fact that the regional variable remains a significant predictor of residual variance, even in these state-level analyses, if one uses the Gastil index of "southernness" rather than a binary variable. Nevertheless, the Gini index is much the stronger predictor, greatly reducing the apparent importance of any such regional variable. In fairness to Nisbett and Cohen, it should be noted that although they do not include income inequality in their summary statements about "alternative explanations for southern violence," they have not totally ignored this variable. Nisbett et al. (1995; see also Nisbett & Cohen, 1996, Appendix A) used a city-level Gini index in certain analyses and found that although this measure was a significant univariate correlate of homicide rates, it dropped out in multivariate models. Arguably, however, this was not a good basis for dismissing income inequality from further consideration, because they did not follow Nisbett's own precept: Whereas the homicide data under consideration were for white men only, the Gini index that they used as a predictor was based on the cities' full multiracial income distributions.

Nisbett (personal communication, Aug. 12, 2007) furthermore suggested that we should be limiting these analyses to homicides that arose in the context of arguments rather than felonies. The theoretical rationale for making this distinction is that it is only in the former context that the defense of personal honor facilitates violence. But is this really so? "Thick descriptions" of homicides in the context of robberies and police action suggest that felony murders frequently entail a similar dynamic of insult, escalation, and a felt need to defend "face" (see, e.g., Toch, 1969). Moreover, the "circumstance" codes on which the argument versus felony distinction is based are problematic not only because potentially orthogonal case attributes are coded as alternatives but also because of missing data: 30% of male victim cases in 1990 are coded as "circumstances unknown," for example, and even the sex of the killer is unknown in 34% of cases. The upshot is that if we limit analysis to cases coded as "arguments," in which both victim and killer were known to be white males, we exclude 93% of the homicides in the U.S. national data archive for 1990, but we *still* find that Gini is a highly significant predictor and that controlling for Gini substantially reduces, but does not eliminate, the apparent effect of region.

Notwithstanding these caveats about the limitations of available data, Nisbett (1993) and Lee et al. (2007) *did* find that it was specifically in the context of arguments rather than felonies that white men from the southern states were more likely than their northern counterparts to kill, as noted earlier. This jibes with

other sorts of data, such as Cohen et al.'s (1996) experimental demonstration of different responses by northern versus southern college students to a standard insult. It is difficult to prove, however, that the homicide data reflect regional differences in the relative prevalence of different types of lethal confrontations and not simply in the labels chosen to describe cases; and, in any event, the analyses incorporating income inequality indicate that this factor is a major contributor to regional variation in argument and felony homicides alike.

WHY DOES THIS MATTER?

Our point is not to cast doubt on the reality of the southern culture of honor, which seems to us well established. Neither is it to question whether having been enculturated in the South exacerbates violent responses to provocations. Our point is simply that Nisbett and Cohen, as well as others who have cited them, such as Richerson and Boyd, may be overstating the case that regional variations in U.S. homicide rates provide testimony to the inertial power of culture in the absence of material supports.

Homicide rates among white men are highest in those states in which white men's income is most inequitable, and the south-north variable appears to add little when this fact is taken into account. To suggest, even tentatively, that a cultural difference has no basis in *any* material factor is of necessity an argument by exclusion, and the trouble with such arguments is that eliminating one candidate material influence (such as average income) cannot rule out the possibility that another (such as income inequality) will turn out to be important. This is not to deny that many cross-culturally variable phenomena surely *are* devoid of material rationales. One can embrace this conclusion prematurely, however, and thus close the door on potentially fruitful further investigation.

It should be stressed that the difference of opinion that we are discussing is a small and subtle one and perhaps even a difference in emphasis rather than in basic claims. We do not doubt that "cultural inertia" plays some role in keeping homicide rates from fluctuating wildly (Daly & Wilson, 1988, 1989), and neither Nisbett and Cohen nor Richerson and Boyd doubt that individuals select among and manipulate the cultural messages that they "internalize." Nisbett and Cohen believe, as do we, that a panhuman evolved psychology underlies our capacity to develop cultural construals and practices, and they have stressed (as have we; Daly & Wilson, 1988) that cultures of honor arise in particular social and ecological settings that oblige self-help justice. Indeed, Nisbett and Cohen (1996) claimed, citing unpublished analyses by Nisbett's student Andrew Reaves, that the local prevalence of homicidal violence in the southern United States is *still* significantly associated with the contemporary economic importance of herding, and although these analyses have been challenged (Chu, Rivera, & Loftin, 2000), this claim illustrates the fact that Nisbett and Cohen are not arguing that ecology has lost *all* its relevance. Finally, we recognize that regional differences in income inequality may themselves reflect cultural differences, some of which (e.g., an emphasis on self-reliance) may be intimately linked to the ideological supports of the culture of honor.

That said, however, there are real implications of these differences of emphasis. Both Nisbett and Cohen and Richerson and Boyd apparently doubt the potential of economic policies as possible remedies for the problem of southern violence, on the grounds that its cultural supports are strong. We think their pessimism on this point is unfounded. People are demonstrably capable of jettisoning cultural baggage that they perceive as obsolete. Not only are the young often skeptical of the wisdom of their elders but an entire cultural complex can be abandoned in the face of evidence that alternative belief systems are the road to success, as witnessed in the phenomenon of cargo cults (Trompf, 1990).

As for homicide rates, they can change remarkably rapidly, in either direction. In the United States as a whole, the homicide rate fell by more than 30% between 1991 and 1997 (Blumstein & Rosenfeld, 1998); in New York, it fell by more than 60% and in Boston by more than 70%. Meanwhile, the Russian homicide rate doubled in the 5 years prior to the collapse of the Soviet Union, and it doubled again in the ensuing 5 years (Pridemore, 2006). Such rapid changes in homicide rates tend to consist primarily of increases and reductions in precisely the sorts of killings that are Nisbett and Cohen's focus: social conflicts between unrelated men, in a context of competition over status and the maintenance of respect (Daly & Wilson, 1988).

At least two important ecological supports of such honor killings have been identified: inequitable access to resources, which inspires escalated and sometimes dangerous competition, and a lack of access to law enforcement, which obliges self-help justice. Nisbett and Cohen have implied that policy directed at ameliorating these factors is likely to be ineffectual against the southern culture of honor, which might instead even spread, but in the same breath, they also have proposed that this culture has "allure" specifically for "those who have little to gain by playing by society's rules and little to lose by standing outside of them" (Nisbett & Cohen, 1996, p. 94). In other words, the compelling nature of the culture of honor's value system is affected by incentives. And policy can change incentives.

Chagnon (1988, p. 990) described a society in which men must be ready to use retaliatory violence to maintain respect and concluded with an anecdote that speaks to the possibility of change:

A particularly acute insight into the power of law to thwart killing for revenge was provided to me by a young Yanomamö man in 1987. He had been taught Spanish by missionaries and sent to the territorial capital for training in practical nursing. There he discovered police and laws. He excitedly told me that he had visited the town's largest *pata* (the territorial governor) and urged him to make law and police available to his people so that they would not have to engage any longer in their wars of revenge and have to live in constant fear. Many of his close kinsmen had died violently and had, in turn, exacted lethal revenge; he worried about being a potential target of retaliations and made it known to all that he would have nothing to do with raiding.

We are powerfully shaped by cultural conditioning. But we are not its unthinking slaves.

ACKNOWLEDGMENTS

We thank Dov Cohen and Dick Nisbett for critical comments on prior drafts of this chapter and Bruce Kennedy and Angus Deaton for data. For research support, we thank the Natural Sciences and Engineering Research Council of Canada and the Social Sciences and Humanities Research Council of Canada.

REFERENCES

- Alvard, M. S. (2003). The adaptive nature of culture. *Evolutionary Anthropology*, 12, 136–149.
- Blumstein, A., & Rosenfeld, R. (1998). Explaining recent trends in U.S. homicide rates. *Journal of Criminal Law and Criminology*, 88, 1175–1216.
- Chagnon, N. A. (1988). Life histories, blood revenge, and warfare in a tribal population. *Science*, 239, 985–992.
- Chu, R., Rivera, C., & Loftin, C. (2000). Herding and homicide: An examination of the Nisbett–Reaves hypothesis. *Social Forces*, 78, 971–987.
- Cohen, D., & Nisbett, R. E. (1994). Self-protection and the culture of honor: Explaining southern violence. *Personality and Social Psychology Bulletin*, 20, 551–567.
- Cohen, D., Nisbett, R. E., Bowdle, B., & Schwarz, N. (1996). Insult, aggression, and the southern culture of honor: An “experimental ethnography.” *Journal of Personality and Social Psychology*, 70, 945–960.
- Cosmides, L., & Tooby, J. (1999). Toward an evolutionary taxonomy of treatable conditions. *Journal of Abnormal Psychology*, 108, 453–464.
- Daly, M., & Wilson, M. (1988). *Homicide*. Hawthorne, NY: Aldine de Gruyter.
- Daly, M., & Wilson, M. (1989). Homicide and cultural evolution. *Ethology and Sociobiology*, 10, 99–110.
- Daly, M., & Wilson, M. (2001). Risk-taking, intrasexual competition, and homicide. *Nebraska Symposium on Motivation*, 47, 1–36.
- Daly, M., Wilson, M., & Vasdev, S. (2001). Income inequality and homicide rates in Canada and the United States. *Canadian Journal of Criminology*, 43, 219–236.
- Deaton, A., & Lubotsky, D. (2003). Mortality, inequality, and race in American cities and states. *Social Science and Medicine*, 56, 1139–1153.
- Eisner, M. (2003). Longterm historical trends in violent crime. *Crime and Justice*, 30, 83–142.
- FBI. (n.d.). The FBI’s Supplementary Homicide Reports: 1980–2006. Retrieved January 2007, from the Office of Juvenile Justice and Delinquency Prevention. Access: <http://ojjdp.ncjrs.org/ojstatbb/ezashr/>
- Fajnzylber, P., Lederman, D., & Loayza, N. (2002). Inequality and violent crime. *Journal of Law and Economics*, 45, 1–40.
- Gangestad, S. W., Haselton, M. W., & Buss, D. M. (2006). Evolutionary foundations of cultural variation: Evoked culture and mate preferences. *Psychological Inquiry*, 17, 75–95.
- Gartner, R. (1993). Methodological issues in cross-cultural large-scale survey research on violence. *Violence and Victims*, 8, 199–215.
- Harris, M. (1968). *The rise of anthropological theory*. New York: T. Y. Crowell.
- Harris, M. (1977). *Cannibals and kings: The origins of cultures*. New York: Random House.

- Kaplan, H., & Hill, K. (1992). The evolutionary ecology of food acquisition. In E. A. Smith & B. Winterhalder (Eds.), *Evolutionary ecology and human behavior* (pp. 167–201). Hawthorne, NY: Aldine de Gruyter.
- Kennedy, B. P., Kawachi, I., & Prothrow-Stith, D. (1996). Income distribution and mortality: Cross-sectional ecological study of the Robin Hood Index in the United States. *British Medical Journal*, *312*, 1004–1007, 1194.
- Lee, M. R., Bankston, W. B., Hayes, T. C., & Thomas, S. A. (2007). Revisiting the southern culture of violence. *Sociological Quarterly*, *48*, 253–275.
- Lowie, R. H. (1917). *Culture and ethnology*. New York: Basic Books.
- McAlister, A. L. (2006). Acceptance of killing and homicide rates in nineteen nations. *European Journal of Public Health*, *16*, 259–265.
- Messner, S. F., Raffalovich, L. E., & Schrock, P. (2002). Reassessing the cross-national relationship between income inequality and homicide rates: Implications of data quality control in the measurement of income distribution. *Journal of Quantitative Criminology*, *18*, 377–395.
- Nisbett, R. E. (1993). Violence and U.S. regional culture. *American Psychologist*, *48*, 441–449.
- Nisbett, R. E., & Cohen, D. (1996). *Culture of honor: The psychology of violence in the south*. Boulder, CO: Westview.
- Nisbett, R. E., Polly, G., & Lang, S. (1995). Homicide and U.S. regional culture. In R. B. Ruback & N. A. Weiner (Eds.), *Interpersonal violent behaviors: Social and cultural aspects* (pp. 135–151). New York: Springer.
- Norenzayan, A. (2006). Evolution and transmitted culture. *Psychological Inquiry*, *17*, 123–128.
- Patton, J. Q. (2000). Reciprocal altruism and warfare: A case from the Ecuadorian Amazon. In L. Cronk, N. Chagnon, & W. Irons (Eds.), *Adaptation and human behavior: An anthropological perspective* (pp. 417–436). Hawthorne, NY: Aldine de Gruyter.
- Peristiany, J. G. (Ed.). (1965). *Honour and shame: The values of Mediterranean society*. London: Weidenfeld & Nicolson.
- Pridemore, W. A. (2006). Demographic, temporal, and spatial patterns of homicide rates in Russia. *European Sociological Review*, *19*, 41–59.
- Richerson, P. J., & Boyd, R. (2005). *Not by genes alone: How culture transformed human evolution*. Chicago: University of Chicago Press.
- Runciman, W. G. (1998). The selectionist paradigm and its implications for sociology. *Sociology*, *32*, 163–188.
- Smith, E. A., Borgerhoff Mulder, M., & Hill, K. (2001). Controversies in the evolutionary social sciences: A guide for the perplexed. *Trends in Ecology and Evolution*, *16*, 128–135.
- Toch, H. (1969). *Violent men: An inquiry into the psychology of violence*. Chicago: Aldine.
- Trompf, G. W. (1990). *Cargo cults and millenarian movements: Transoceanic comparisons of new religious movements*. Berlin: Mouton de Gruyter.
- World Health Organization. (2002). *World report on violence and health*. Geneva: Author.