

Why are homicide rates so variable
between times and places ?

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Why talk about **homicide**
in a symposium on
cultural psychology ?

Because homicide is a well-documented,
important behavioural phenomenon,
with a high degree of
cross-national and historical variability
that is readily quantified and is
commonly attributed to cultural differences.

1996 homicide rates in some industrialized countries
(source : United Nations Demographic Yearbook)

Ireland	6	per million persons per annum
Japan	6	
U.K.	9	
Spain	9	
Sweden	10	
France	11	
Germany	11	
Netherlands	12	
South Korea	16	
Canada	17	
Italy	17	
Australia	18	
Singapore	18	
New Zealand	20	
Switzerland	27	
U.S.A.	94	

Two views of the sources of cultural diversity

(1) Culture is autonomous, idiosyncratic, and inexplicable by
appeal to current ecological / economic factors.

Extreme versions have been articulated by many sociologists
and anthropologists. Example :

"Culture is a thing *sui generis* which can only be explained
in terms of itself... *Omnis cultura ex cultura*"

R.H. Lowie (1917) *Culture and ethnology*. NY: Basic Books

The defensible version of "cultural determinist" position # 1 :

Idiosyncratic histories create differences that are "arbitrary" in
this sense : Nothing extrinsic to the cultural phenomenon itself
presently favours maintaining it in one form rather than another.

lexicon is the prototype: *You say "arigato". We say "thank you".*

—see Richerson & Boyd (2004) *The nature of cultures*, chapter 2.

Two views of the sources of cultural diversity

(2) Culture is a set of systematic "evoked" responses to material and social conditions.

Extreme versions have been articulated by many Marxists and some Darwinians. Example :

"I, personally, find culture unnecessary."

Betzig (1997)

The defensible version of "ecological determinist" position # 2 :

Certain ecologies favour certain 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.

(e.g. Pastoral way of life engenders patrilineal polygynous marriage, bride wealth, patrilineal inheritance, blood feud, "culture of honour", *et cetera*)

Is the US relatively violent because of its culture ?

Policy-makers apparently think so. Example :

" In the five years from 1992 through 1996... Toronto [Canada] experienced exactly 100 gun homicides [while] Chicago, an American city of comparable size, had 3,063. ... If we really work hard at it.. we can end the culture of violence in this nation."

US Attorney General Janet Reno, speaking to the *American Bar Association* in 1998.

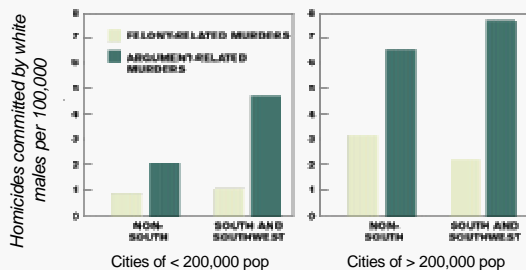
Media commentators think so, too. Example :

"Michael Moore clearly demonstrates how a culture of fear leads to a culture of violence."

British review of *Bowling for Columbine*, a film about violence and the US "gun culture", and winner of the 2002 Academy Award for Best Documentary.

Culture of violence in the US ?

Richard Nisbett & Dov Cohen have documented differences between the US north and south in homicide rates.



Culture of violence in the US ?

In addition to the fact that southerners kill at higher rates than northerners, Cohen & Nisbett have shown that they

- oppose gun control more.
- favour the death penalty more.
- are more sympathetic to those "provoked" into violence.
- are more supportive of military spending.
- are more lenient towards men who assault wives.
- approve of physical punishment of children more.

In other words, southerners possess (and transmit) attitudes and values that legitimate and encourage violence, especially violence in defence of personal and familial honour.

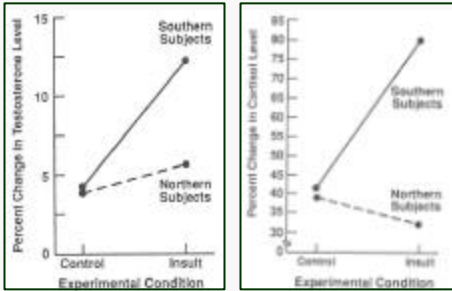
Why? Cohen & Nisbett invoke differences in cultural origins with an historical (but no longer present) ecological rationale: the Europeans who settled the south had a pastoral background whereas those in the north had been crop farmers and townfolk.

Cultural influence on a physiological response

Men raised in US south exhibited rapid rises in testosterone and cortisol in response to an insult. Men from the north did not.

Cultural inertia

Current circumstances were identical: all subjects were students at the same (northern) university.



Cohen et al. (1996) *JSPS* 70 : 945-960

Wolfgang & Ferracuti (1967) proposed that "subcultures of violence" explain regional and racial differences in US homicide rates.

Within certain "reference groups", violence is normative and encouraged, while other groups within the same larger society rarely resort to violence and socialize their children to abhor it.

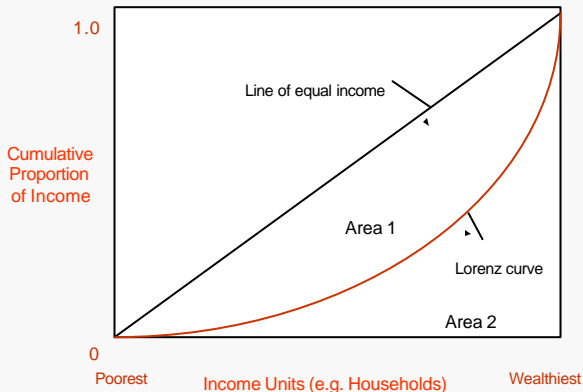
We (Daly & Wilson 1989) criticized this theory as follows:

Invoking "culture" like this implies that a difference between two groups is a product of their distinct cumulative histories rather than a product of present differences in the external forces acting upon the two groups...

Attributing violence among black Americans to a black subculture, for example, subtly implies that the social problems of disadvantaged minorities are intrinsically generated rather than being the products of exploitation and economic inopportunity, and that it is mere happenstance that the poorer classes in industrialized society exhibit more violence than the privileged...

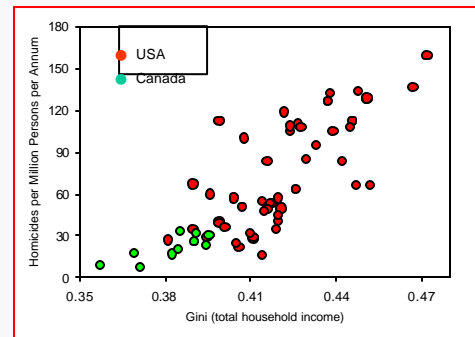
If we think we can explain why poor young men behave violently in terms of the "transmission" of "values" within a "subculture," then we are unlikely to seek more utilitarian explanations.

Gini coefficient of income inequality = Area 1 / (Area 1 + Area 2)



Local levels of income inequality predict homicide rates

Homicide rates in 50 US states (1990) and 10 Canadian provinces (1988-92) as a function of the Gini coefficient of income inequality



Daly, Wilson & Vasdev (2001) *Canadian Journal of Criminology* 43: 219-236

Richerson & Boyd's opening salvo in chapter 1 ("Culture is essential")

In their book, *Culture of Honor*, Richard Nisbett and Dov Cohen argue that the South is more violent than the North because Southerners have different culturally acquired beliefs about honor than Northerners. Southerners, they argue, believe more strongly than Northerners that a person's reputation is important and worth defending even at great cost. ...

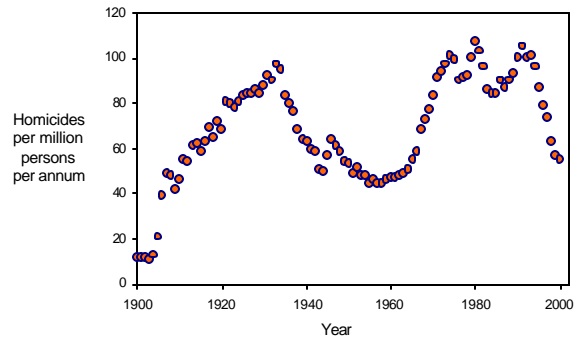
Statistical patterns of violence are consistent with Nisbett & Cohen's explanation, but not with competing hypotheses based on economic or environmental factors. Neither White per capita income nor July temperature explains the variation in homicide within the South. ...

The Southern culture of honor arose and was for a long time maintained by an environment that made it an efficacious means of protecting a family's livelihood. Today, few Southerners are pastoralists, and few Northerners are peasant farmers. Nonetheless, these striking differences persist.

Richerson & Boyd (2004) *The nature of cultures.*

Variability over time.

Trends in the annual US homicide rate, 1900 - 2000

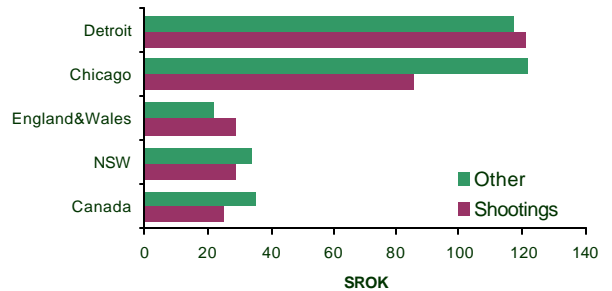


Spousal SROK (Sex ratio of killing)



Why is the US so unusual in its Sex Ratio of Killing ?

It's not because of an equalizing effect of guns.



Why is the US so unusual in its Sex Ratio of Killing ?

A popular "cultural" answer (e.g. Freda Adler, Gwynn Nettler) :

Women's liberation is eliminating traditional sex roles and behavioural sex differences. A rise in male-like criminality is one aspect of this cultural transformation.

Problems with this explanation

Women's lib is not uniquely (or even especially) American.

The US's unusually high SROK goes back decades, and it has been falling, not rising, in recent years.

Sex differences in crime have not, in general, been shrinking.

The unusual SROK in the US is peculiar to spousal homicide (e.g. in the US, as elsewhere, women only kill *other women* at < 3% of the *per capita* rate at which men kill men),

Why is the US so unusual in its Sex Ratio of Killing ?

The US's high spousal SROK is an urban black phenomenon.

Chicago police classify almost all killers and victims into one of three so-called races : white, black and Latino.

Black and Latino homicide rates greatly exceed that of whites, but ...

The Black spousal SROK = 131

The White spousal SROK = 43

The Latino spousal SROK = 29

Does *this* reflect cultural differences in socialization /legitimation of violence by females (as compared to males) ?

Perhaps, but hypotheses that invoke people's current economic, demographic and social environments (welfare rules, sex-specific unemployment rates, matrilocality, steprelations) must be tested.

Sexual Selection and Intrasexual Competition

Darwinian selection is largely a matter of differential reproduction among same-sex competitors.

Within a population, the males are engaged in a zero-sum contest for the paternity of future generations, while females are engaged in a parallel contest over maternity.

Men's fitness is *more variable* than women's: men have a higher maximum fitness, but are also more likely to die without reproducing.

This has surely been true throughout human evolution.

Ceteris paribus, men are both more motivated to compete with one another and more risk-prone than women.

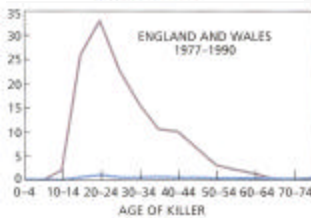
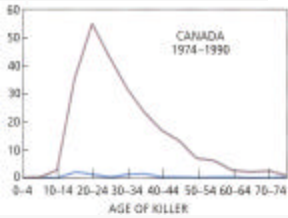
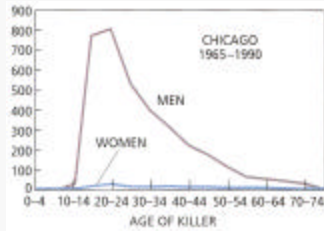
Competitive Risk-taking and Violence

Homicide rates reflect the local intensity of male competition

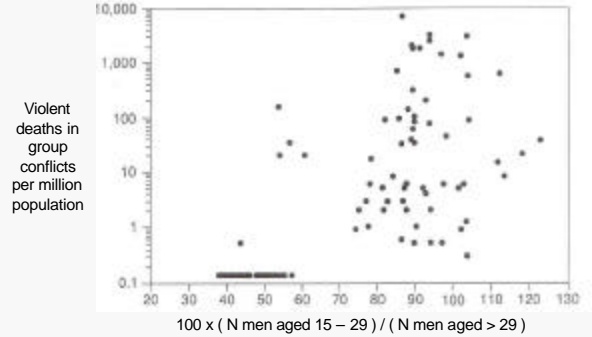
- Most killers and their victims are unrelated male rivals (especially where homicide rates are high.)
- Most such cases are status contests between acquaintances, and the remainder are mostly robberies.
- Rates of these male rival killings vary between times and places more than other homicides. Thus, anything that elevates male competition tends to raise the homicide rate.

Age-specific rates of killing same-sex unrelated persons (per million populace per year) in 3 data sets.

Although homicide rates vary widely, some things (e.g. sex differences and age patterns) are quite robust.



National death rates in wars and other group violence in 1980 - 1993 in relation to a demographic ratio. N = 88 (all countries with population > 3 million).

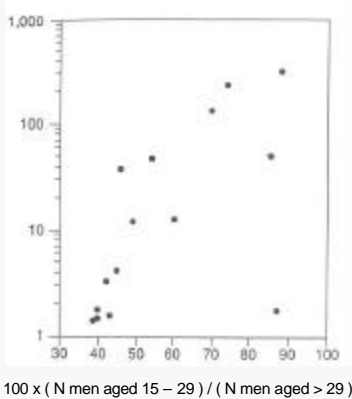


Violent deaths in group conflicts per million population

Mesquida & Weiner (1996) *Ethology & Sociobiology* 17 : 247 - 262

Death rates in wars and other group violence in 1989 - 1993 in the republics of the former Soviet Union in relation to a demographic ratio.

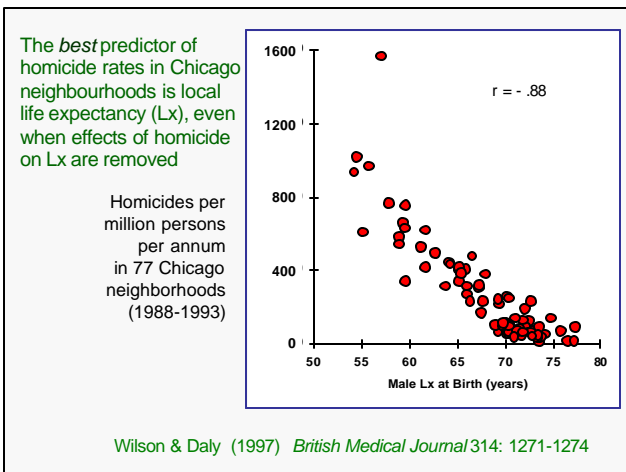
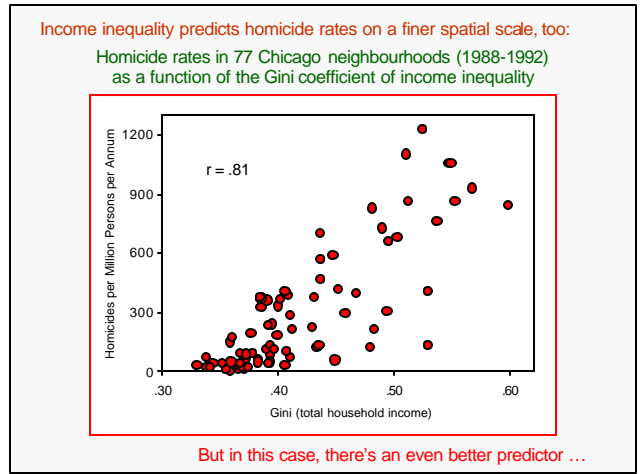
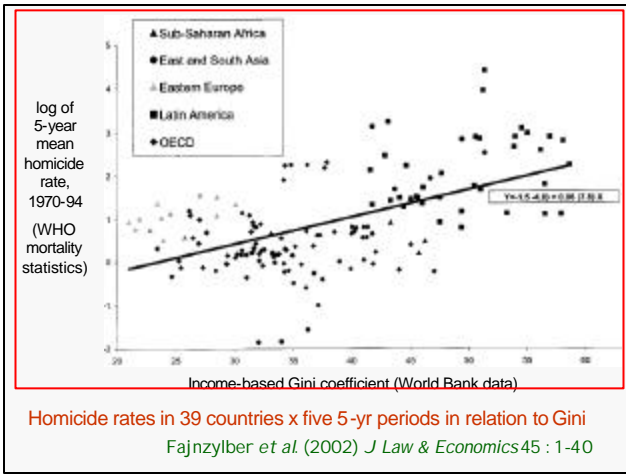
Violent deaths in group conflicts per million population



Mesquida & Weiner (1996) *Ethology & Sociobiology* 17 : 247 - 262

Cross- national variability : Homicide rates in 1996 (source : United Nations Demographic Yearbook)

Iceland	4	per million persons per annum
Ireland	6	
Japan	6	
U.K.	9	
China	14	
South Korea	16	
Canada	17	
New Zealand	20	
Switzerland	27	
Finland	29	
U.S.A.	94	
Mexico	172	
Brazil	190	
Estonia	222	
Russia	306	



Future Discounting

Well-designed ("rational") agents discount the future more or less steeply in response to cues of the utility of current *versus* future consumption.

Implication : Future discounting should vary by sex and age, and in response to cues of relative position and of the probability of surviving to reap future benefits.

Sex Differences

Men should discount more steeply than women. Men are less likely to live to see the future, and immediate, even total, resource expenditure was more likely to pay off for ancestral men (as mating effort) than for women.

Be a Winner!

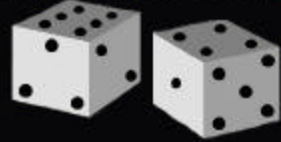
You will have the chance to win money.
You will choose between getting money
right away or more money later.

For example, do you want:

19 dollars tomorrow
or
25 dollars in 53 days?

next

When you are done, roll a pair of dice.



If you roll "snake eyes" (double 1s)
you will get one of the choices you made.

next

Which option would you rather have?
Click on your choice.

\$34 tomorrow

or

\$35 in 186 days

hyperbolic discount parameter $k = \frac{(\text{future \$} - \text{tomorrow \$})}{(\text{delay} * \text{tomorrow \$})}$

Shallow discounting

Indifference between \$34 tomorrow and \$35 in 186 days
implies a personal interest rate = 5.9%
and a hyperbolic discount parameter $k = .000158$

Steep discounting

Indifference between \$20 tomorrow and \$55 in 7 days
implies a personal interest rate = $4.55 \times 10^{24} \%$
and a hyperbolic discount parameter $k = .248848$

By giving subjects a series of choices, we can see when they begin to prefer larger, later rewards, and estimate their personal discount rates. Individuals tend to make consistent choices, as if operating on some implicit personal interest rate (often astonishingly high!).

K Kirby (1997) *J exp Psychol: General* 126 : 54-70

Recall :

Immediate, even total, resource expenditure was more likely to pay off for ancestral men (as mating effort) than for ancestral women.

Hypothesis:

Cues that activate a courtship or mating effort mindset in men will elicit steeper discounting.

Will discounting increase after viewing pictures of attractive persons of the opposite sex?

Protocol:

1. Discount parameter estimated before seeing pictures (9 pairs of monetary choices)
2. 12 pictures of opposite-sex persons rated for appeal (7-point scale)
3. Discount parameter re-estimated after seeing pictures (9 pairs of monetary choices)
4. Dice rolled: snake-eyes wins \$ value of one randomly drawn choice. Post-dated cheque written.

Pictures taken from "hotornot.com" where photos rated by hundreds of visitors on a scale of 10 = "hot" to 1 = "not". Selected attractive people (rated 9 - 10) and unattractive people (rated 4 - 5).



Unappealing 1 2 3 4 5 6 7 Very Appealing

Please rate the following pictures according to how appealing you find the person. 1 = unappealing & 7 = very appealing

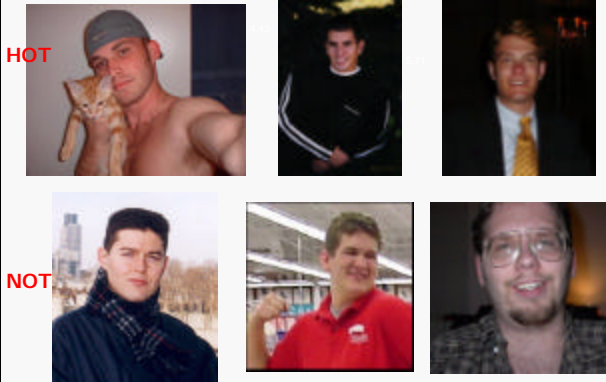
HOT



NOT



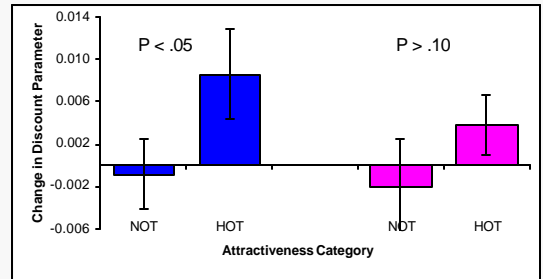
Please rate the following pictures according to how appealing you find the person. 1 = unappealing & 7 = very appealing



Change in discounting (k after rating pictures minus initial k)

Men who rated "hot" women responded differently than those who rated the "not" pictures.

For women, there was no significant difference between the "hot" and the "not" groups.



Is the male response really due to the activation of a "mating effort" mindset?

A less specific alternative: maybe it's a response to positive affect that can be elicited by *any* appealing commodity?

A control experiment:

Substitute "hot" and "not" cars for opposite-sex faces.

We compared "super" and "family" cars, using the identical protocol.

Please rate the following pictures according to how appealing you find the car.

1 = unappealing & 7 = very appealing

3 examples of family cars (not hot)

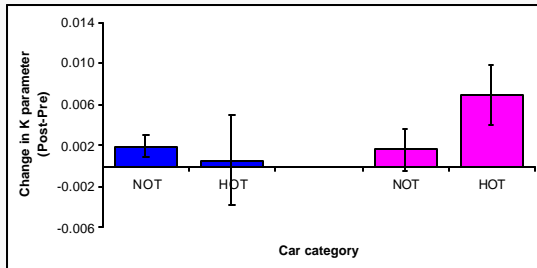


3 examples of supercars (hot)



Change in discounting (k after rating pictures minus initial k)

Neither men nor women exhibited significant changes in k nor significant differences between groups.



Summary of Future Discounting Experiment

Cues that activated a courtship or mating effort mindset in men did indeed elicit steeper discounting (shorter time horizons).

We already knew that discount rates vary between groups (men > women, addicts > controls), but this is the first experimental demonstration that discount rates can be changed by a contextual cue or framing effect. Maybe this experiment would show an even stronger effect where romantic and marital partnerships are short-lived.

It would be valuable to know whether future discounting inclinations vary between Chicago neighbourhoods and across states differing in economic inequality.

Final Discussion

Relevance of these things to the symposium's themes.

Variability in lethal violence across times and places is widely considered cultural variability. In a sense that's surely correct.

Societies differ in the *legitimacy* of violence in specific contexts. For example, it's a moral *obligation* to kill an unfaithful wife in some societies, a despicable crime in others.

However... claims that cultural systems of beliefs and values are *sui generis*, or even that they are stable in the absence of ecological supports because of their transmission dynamics and the coherence of their parts, are too strong.

If one ecological / economic model of the sources of cross-cultural variability fails, that doesn't mean another won't succeed.

Cultural stability and instability

Effects of technological change are relatively stable (or cumulative)
example : effects of domestication of animals, horticulture.

New institutions can also change things in ways that are not readily reversed.

example : effects of third party justice and professional police

But we question whether attitudes and values *per se* are important sources of cultural inertia.

Attitudes and values can change fast, largely because people are not passive recipients of social influence. Precisely because the world is (and always has been) populated by agents with distinct self-interests, children are skeptical revisionists who derive their values at least partly from the way society appears to be working.