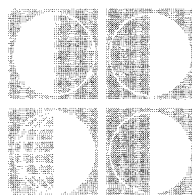


Why Single Men Might Abhor Foreign Cultures*



Satoshi Kanazawa and Rebecca L. Frerichs

Department of Psychology, University of Canterbury; Department of Sociology, University of New Mexico

ABSTRACT: In contrast to cues to women's mate value (youth and physical attractiveness), many qualities that men display in lekking are socially and culturally specific. We predict that, for this reason, men avoid exposure to foreign cultures, but such xenophobia should cease once they are married (especially since the presence of their wives can function as a cross-culturally meaningful lekking device). Analyses of data from Europe and the United States confirm our predictions.

LEKKING AMONG HUMANS

At first sight, humans appear to be an exception in nature with regard to sexual selection. Among most species, males are gaudy, colorful, decorated, and ornamented, while females are drab in appearance. Males of lekking species display their physical features in order to attract mates, and females choose their mates on the basis of their physical appearance; the gaudier and more colorful, the better. In contrast, among humans, it is women for whom physical appearance is more important for their mate value, and it is men who choose their mates mostly for their physical appearance. And, at least in industrial societies, women tend to be more decorated and ornamented than men, although men in many preindustrial societies often wear more elaborate ornamentation than women.

The female of most species in nature does not receive any material benefit from her mates; the male does not make any parental investment beyond the sperm.

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This is why the male's genetic quality is especially important for the female; in fact, nothing else matters. So, among these species, males display their genetic quality in lekking and the females choose their mates on the basis of their genetic quality. In contrast, men make a large amount of material investment in their offspring. This does not mean, however, that their genetic quality is not important to women (Miller, 2000); men's genetic quality can predict their future ability to acquire resources and attain status, hence their ability to make parental investment. For human sexual selection, however, because of high male parental investment, what is important is not the male's genetic quality per se, but his resource holding potential.¹ His genetic quality is important only to the extent that it predicts or correlates with his resource holding potential.

This is why, when men lek, they display their resource holding potential, in addition to their genetic quality. And, unlike other lekking species like the sage grouse or antelopes, men lek mostly by nonphysical means. They drive luxury

¹We thank one anonymous reviewer for making this point.

cars, wear expensive watches and designer suits (Townsend and Levy, 1990), carry electronic gadgets such as cell phones and PDAs (Lycett and Dunbar, 2000), and brag about their achievements in casual conversations (Dunbar, Duncan, and Marriott, 1997). Young men also advertise their genetic quality and resource holding potential by "cultural displays," by excelling in such "quantifiable, public and costly" activities as music, art, literature, and science (Kanazawa, 2000; Miller, 1998, 1999). So men lek via social and cultural, rather than physical, ornamentation (Low, 1979).

Such social and cultural ornamentation, however, presents men with one problem that males of other species, who lek via physical ornamentation, do not face: It does not travel well. Social and cultural ornamentation is, by definition, socially and culturally specific. Yanomamö women, for instance, will not be able to tell the difference between a BMW and a Hyundai or the difference between an Armani suit and a Burger King uniform, and their status implications; a Grammy or a Nobel will not impress them. Men cannot brag about their achievements in conversations with women unless they speak the same language. Conversely, American women are unlikely to be impressed by body scars and large penis sheaths. Signs of men's status and mate value are specific to societies and cultures, and they lose meaning outside of them.

This is in clear contrast to women's status and mate value. Standards of youth and physical attractiveness, the two most important determinants of women's status and mate value, are culturally universal (Cunningham et al., 1995; Jones, 1996; Jones and Hill, 1993; Maret and Harling, 1985; Morse and Gruzen, 1976; Thakerar and Iwawaki, 1979), because they are in-

nate (Langlois et al., 1987; Samuels and Ewy, 1985). Men in preliterate and innumerate cultures without any concept of fractions or the decimal point will be able to distinguish between women with 1.0 and .7 waist-to-hip ratios. Yanomamö men will see that Jennifer Love Hewitt is extremely *moko dude*.

If men's status and mate value are specific to their own society and culture, then they should abhor different cultures, where a completely different set of rules, of which they are ignorant, may apply. In contrast, women should not abhor foreign cultures to the same extent as men do, because rules applicable to them are cross-culturally universal.

Further, this sex difference should weaken or disappear once men marry, for a couple of reasons. First, married men who have achieved reproductive success should have less urgent need to attract mates via social and cultural ornamentation than unmarried men. Second, and more important, *mates are probably the only ornamentation or lekking device men can display that is cross-culturally meaningful*. There is evidence that females of species as varied as guppies (Dugatkin, 1998), Japanese quail (Galef and White, 1998), and humans (Cunningham, Dugatkin, and Lundy, forthcoming) prefer to mate with males who have recently mated. Females use other females' choice of males as evidence of their genetic quality; in other words, they copy each other. Then being married (the presence of a wife) is one cross-culturally transportable ornamentation or lekking device that signifies men's superior mate value, and married men should abhor foreign cultures less.

We therefore make two predictions about fear of foreign cultures or xenophobia.

H1: Unmarried men are significantly more likely to abhor foreign cultures than unmarried women.

H2: Married men are not significantly more likely to abhor foreign cultures than married women.

In the subsequent empirical tests, we measure men's and women's abhorrence of foreign cultures by two indicators: their likelihood of travel to foreign countries, and their xenophobia. We test these two hypotheses with one European data set and one American data set.²

EMPIRICAL TESTS

EUROPEAN DATA

We use Eurobarometer 48.0: Holiday Travel, October–November 1997 (Melich, 1998) for our European data. The sample consists of multistage national probability samples and national stratified quota samples of persons aged 15 and over residing in the 15 European Union member nations (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom). The sample size is 16,186.

One of the questions that the Eurobarometer survey asks its respondents is

whether they have gone (or plan to go) on a holiday outside of their country in 1997. Another set of questions asks whether the respondents find disturbing people of other nationalities, races, and religions. We use these questions to measure the respondents' likelihood of travel to foreign countries and their xenophobia. In using data on traveling to foreign countries, our contention is *not* that men and women travel with the (even unconscious) intention of finding mates, although some might. Our contention instead is that women are able to maintain their mate value in different cultures whereas men cannot, and, for this reason, single men should have a slight tendency to want to avoid foreign cultures.

Table 1 presents the results of logistic regression analyses of the Eurobarometer data. Panel A shows that, controlling for age (in years), education (in years), and income (in 12 ordinal categories of local monetary units), unmarried men are significantly ($p < 0.01$) less likely to have vacationed in foreign countries in 1997 than unmarried women (left column). However, this sex difference completely disappears among married respondents (right column), probably because married couples tend to vacation together to the same destinations.

The same pattern shows up in the measures of xenophobia. Panel B shows that, controlling for age and education, unmarried men are significantly ($ps < 0.05$) more likely to find disturbing people of other: a) nationalities; b) races; and c) religions. Once again, the significant sex differences disappear in all cases among married respondents. Unlike the case of vacations, there seems to be no immediate explanation as to why men cease to be more xenophobic than women once they get married.

²We note that a wholly different logic also leads to the prediction that men avoid foreign cultures more than women. Our closest primate relatives (chimpanzees and bonobos) practice female exogamy, where females leave their natal group to join another and mate with its males (Maryanski and Turner, 1992, pp. 21–23), and there is now genetic evidence to show that humans too have practiced female exogamy (Jensen, 1998). Males of these species spend their entire lives in their natal groups, whereas females travel between groups. Women should thus be far less fearful of exposure to foreign cultures than men are. However, female exogamy cannot explain the negative effect of marriage on men's xenophobia, which we predict (and find).

TABLE 1
EUROPEAN SAMPLE

| | UNMARRIED RESPONDENTS | MARRIED RESPONDENTS |
|--|-------------------------|-------------------------|
| <i>A) Have you been on holiday in a foreign country in 1997?</i> | | |
| Sex (male = 1) | -0.1867** (0.0703) | 0.0602 (0.0543) |
| Age | -0.0076*** (0.0019) | 0.0004 (0.0019) |
| Education | 0.0753**** (0.0071) | 0.0799**** (0.0053) |
| Income | 0.0760**** (0.0101) | 0.1561**** (0.0092) |
| Constant | -1.8720 (0.1535) | -3.0244 (0.1418) |
| -2 log likelihood | 5095.580 | 8225.555 |
| χ^2 (df = 4) | 252.325**** | 711.289**** |
| % correctly classified | 70.55 | 69.29 |
| <i>n</i> | 4,448 | 7,138 |
| <i>B) Do you find disturbing people of another . . .</i> | | |
| | a) nationality? | |
| Sex (male = 1) | 0.1952* (0.0759) | 0.0979 (0.0601) |
| Age | 0.0086**** (0.0018) | 0.0071*** (0.0021) |
| Education | -0.0451**** (0.0091) | -0.0424**** (0.0066) |
| Constant | -1.7734 (0.1557) | -1.6753 (0.1408) |
| -2 log likelihood | 4944.370 | 7610.991 |
| χ^2 (df = 3) | 67.903**** | 77.486**** |
| % correctly classified | 86.49 | 85.52 |
| <i>n</i> | 6,330 | 9,294 |
| | b) race? | |
| Sex (male = 1) | 0.1487* (0.0738) | 0.0884 (0.0571) |
| Age | 0.0119**** (0.0017) | 0.0106**** (0.0019) |
| Education | -0.0444**** (0.0087) | -0.0326**** (0.0061) |
| Constant | -1.8031 (0.1506) | -1.7860 (0.1321) |
| -2 log likelihood | 5166.873 | 8231.563 |
| χ^2 (df = 3) | 100.544**** | 85.590**** |
| % correctly classified | 85.32 | 83.42 |
| <i>n</i> | 6,313 | 9,259 |

TABLE 1 (continued)

| | UNMARRIED RESPONDENTS | MARRIED RESPONDENTS |
|------------------------|------------------------|------------------------|
| | c) religion? | |
| Sex (male = 1) | 0.1640* (0.0731) | 0.0854 (0.0578) |
| Age | 0.0086**** (0.0017) | 0.0086**** (0.0020) |
| Education | -0.0145 (0.0080) | -0.0081 (0.0058) |
| Constant | -2.0076 (0.1428) | 2.0140 (0.1307) |
| -2 log likelihood | 5,219.382 | 8079.803 |
| χ^2 (df = 3) | 34.335**** | 30.362**** |
| % correctly classified | 85.26 | 83.99 |
| <i>n</i> | 6,281 | 9,220 |

NOTE: Main entries are unstandardized regression coefficients.

Standard errors are in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$

AMERICAN DATA

We use the 1996 General Social Survey (GSS) for our American data. One of the modules in the 1996 GSS asks half of its respondents ($n = 1,367$) about their national identity. These questions assess the respondents' pro-American attitudes. We use two sets of these questions as reverse measures of xenophobia. The GSS does not ask its respondents about their foreign travel in any of its surveys.

The first set of questions ("Attitudes toward American Identity") asks the respondents whether they agree with the following statements on a five-point Likert scale.

1. "I would rather be a citizen of America than of any other country in the world."
2. "There are some things about America today that make me feel ashamed of America."
3. "The world would be a better place if people from other countries were more like the Americans."
4. "Generally speaking, America is a better country than most other countries."

5. "People should support their country even if the country is in the wrong."

6. "When my country does well in international sports, it makes me proud to be an American."

The responses are coded so that a greater value indicates a higher level of pro-American and xenophobic attitude, and then summed across all questions. Thus this dependent measure varies from 6 (the least xenophobic) to 30 (the most xenophobic).

Another set of questions ("Pride in America") asks the respondents how proud they are of America in each of the following on a five-point Likert scale.

1. The way democracy works.
2. Its political influence in the world.
3. America's economic achievements.
4. Its social security system.
5. Its scientific and technological achievements.
6. Its achievements in sports.
7. Its achievements in the arts and literature.
8. America's armed forces.
9. Its history.

10. Its fair and equal treatment of all groups in society.

Once again, the responses are coded so that a greater value indicates a higher level of pro-American and xenophobic attitude, and then summed across all questions. Thus this dependent measure varies from 10 (the least xenophobic) to 50 (the most xenophobic).

Table 2 presents the results of OLS regression analyses. In order to be consistent with our analyses of the Eurobarometer data, we include only white respondents in our analyses of the GSS data. Panel A shows that, controlling for age (in years), education (in years), and income (in 12 ordinal categories), unmarried men are significantly ($p < 0.01$) more pro-American and xenophobic than unmarried women, measured by the six "Attitudes toward America" questions. However, this sex difference disappears among married respondents. Panel B similarly shows that unmarried men are significantly ($p < 0.01$) more pro-American and xenophobic than unmarried women, measured by the 10 "Pride in America" questions. Once again, this sex difference disappears among married respondents.

Two caveats are in order. First, while all of our findings are statistically significant, the effect of sex on the likelihood of foreign travel and xenophobia is nonetheless modest in magnitude. Second, given the cross-sectional nature of our data, we cannot technically rule out the possibility that the interaction effect of sex and marital status we observe in our empirical analyses actually captures some unspeci-

fied cohort or period effect. We would note, however, that whatever unmeasured cohort or period effect would have to have taken place both in the United States and in all of the 15 European Union nations at the same time (in 1996 and 1997). We cannot think of any such factor.

CONCLUSION

Our analyses of Eurobarometer and GSS data indicate that men are less likely to travel to foreign countries and are more xenophobic than women, but this sex difference disappears once they are married. We contend that this is probably because men's status and mate value, unlike women's, are socially and culturally specific, and they cannot successfully lek outside of their own society and culture. (Married men, on the other hand, can use their wives as cross-culturally meaningful lekking devices or ornamentation to signify their superior mate value.) In contrast, the standards and criteria by which women are judged for their mate value are socially and culturally universal. While our conclusion is tentative, and awaits further empirical confirmation, we believe that there is no other plausible explanation for the fact that men are more likely to abhor foreign cultures than women, but only as long as they are unmarried, both in Europe and in the United States, across such diverse measures as travel to foreign countries, attitudes toward people from different cultures, and attitudes toward American identity and pride in America.

REFERENCES

- CUNNINGHAM, M., L. A. DUGATKIN, and D. LUNDY. Forthcoming. Who's hot and who's not: Mate copying in humans. *Journal of Personality and Social Psychology*.
- CUNNINGHAM, M. R., A. R. ROBERTS, A. P. BARBEE, P. B. DRUEN, and C.-H. WU. 1995. Their ideas of beauty are, on the whole, the same as ours: Consistency and variability in

TABLE 2
AMERICAN SAMPLE

| | UNMARRIED RESPONDENTS | MARRIED RESPONDENTS |
|---|-------------------------|-----------------------------------|
| <i>Attitudes toward American Identity</i> | | |
| Sex (male = 1) | 0.9944** (0.3750) | 0.5087 (0.3041) |
| Age | 0.0267 (0.0145) | -0.0031 (0.0123) |
| Education | -0.4152**** (0.0675) | -0.2745**** (0.0557) |
| Income | 0.0097 (0.0090) | -1.9499 ⁻⁴ (0.0075) |
| Constant | 24.6345 (1.1522) | 25.0078 (0.9736) |
| R ² | 0.1423 | 0.0630 |
| n | 407 | 409 |
| <i>Pride in America</i> | | |
| Sex (male = 1) | 1.7803** (0.6384) | 0.6083 (0.5140) |
| Age | 0.0736** (0.0248) | 0.0906**** (0.0208) |
| Education | -0.1308 (0.1145) | 0.0665 (0.0939) |
| Income | 0.0184 (0.0155) | 0.0030 (0.0122) |
| Constant | 35.5790 (1.9652) | 33.8936 (1.6350) |
| R ² | 0.0737 | 0.0585 |
| n | 394 | 405 |

NOTE: Main entries are unstandardized regression coefficients.
Standard errors are in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$

- the cross-cultural perception of female physical attractiveness. *Journal of Personality and Social Psychology* 68:261-279.
- DUGATKIN, L. A. 1998. Genes, copying, and female mate choice: Shifting thresholds. *Behavioral Ecology* 9:323-327.
- DUNBAR, R. I. M., N. D. C. DUNCAN, and A. MARRIOTT. 1997. Human conversational behavior. *Human Nature* 8:231-246.
- GALEF, B. G. JR., and D. J. WHITE. 1998. Mate-choice copying in Japanese quail, *coturnix coturnix japonica*. *Animal Behaviour* 55:545-552.
- JENSEN, M. 1998. All about Adam. *New Scientist*, July 11:35-39.
- JONES, D. 1996. Physical attractiveness and the theory of sexual selection. Ann Arbor: University of Michigan Museum of Anthropology.
- JONES, D., and K. HILL. 1993. Criteria of physical attractiveness in five populations. *Human Nature* 4:271-296.
- KANAZAWA, S. 2000. Scientific discoveries as cultural displays: A further test of Miller's courtship model. *Evolution and Human Behavior* 21:317-321.
- LANGLOIS, J. H., L. A. ROGGMAN, R. J. CASEY, J. M. RITTER, L. A. RIESER-DANNER, and V. Y. JENKINS. 1987. Infant preferences for attractive faces: Rudiments of a stereotype? *Developmental Psychology* 23:363-369.
- LOW, B. S. 1979. Sexual selection and human ornamentation. In N. A. Chagnon and W. Irons (eds.), *Evolutionary biology and human social behavior: An anthropological perspective*, pp. 462-487. North Scituate: Duxbury.

- LYCETT, J. E., and R. I. M. DUNBAR. 2000. Mobile phones as lekking devices among human males. *Human Nature* **11**:93-104.
- MARET, S. M., and C. A. HARLING. 1985. Cross-cultural perceptions of physical attractiveness: Ratings of photographs of whites by Cruzans and Americans. *Perceptual and Motor Skills* **60**:163-166.
- MARYANSKI, A., and J. H. TURNER. 1992. The social cage: Human nature and the evolution of society. Stanford: Stanford University Press.
- MELICH, A. 1998. Eurobarometer 48.0: Holiday travel, October-November 1997. Ann Arbor: ICPSR. (ICPSR 2353)
- MILLER, G. F. 1998. How mate choice shaped human nature: A review of sexual selection and human evolution. In C. Crawford and D. L. Krebs (eds.), *Handbook of evolutionary psychology: Ideas, issues, and applications*, pp. 87-129. Mahwah: Lawrence Erlbaum.
- MILLER, G. F. 1999. Sexual selection for cultural displays. In R. Dunbar, C. Knight, and C. Power (eds.), *The evolution of culture*, pp. 71-91. New Brunswick: Rutgers University Press.
- MILLER, G. F. 2000. The mating mind: How sexual choice shaped the evolution of human nature. New York: Doubleday.
- MORSE, S. J., and J. GRUZEN. 1976. The eye of the beholder: A neglected variable in the study of physical attractiveness? *Journal of Personality*. **44**:209-225.
- SAMUELS, C. A., and R. EWY. 1985. Aesthetic perception of faces during infancy. *British Journal of Developmental Psychology* **3**:221-228.
- THAKERAR, J. N., and S. IWAWAKI. 1979. Cross-cultural comparisons in interpersonal attraction of females toward males. *Journal of Social Psychology* **108**:121-122.
- TOWNSEND, J. M., and G. D. LEVY. 1990. Effects of potential partners' costume and physical attractiveness on sexuality and partner selection. *Journal of Psychology* **124**:371-389.