

## Behavioral Data, Cultural Group Selection, and Genetics

Joseph Henrich

*University of British Columbia  
Vancouver, British Columbia*

Kasser et al. pose an important and often unad-  
dressed question: how do different institutional forms,  
or economic systems, shape the ideas, values, beliefs,  
motivations, and practices of their members or partic-  
ipants (also see Bowles, 1998). While I applaud their  
efforts in opening up this line, I offer two concerns.  
First, Kasser et al. neglected two large-scale compara-  
tive projects that directly test their principle hypoth-  
eses and arrive at quite different conclusions. Second,  
much of their evidence involves relationships among  
variables drawn from samples within one ACC pop-  
ulations, yet their hypotheses seem to demand compar-  
isons among populations with differing exposure to  
ACC institutions. This may have resulted in faulty  
causal inferences.

The authors hypothesize that ACC institutions, col-  
lectively forming the capitalist economic system, favor  
the transmission of cultural representations that pro-  
motes self-interest, competition, and materialism,  
while suppressing the acquisition of representations  
related to altruism, fairness, cooperation and numer-  
ous aspects of psychological well-being. In my view,  
the proper test of such hypotheses would involve a sys-  
tematic comparative study, preferably using behavioral  
measures of self-interest, fairness, etc., from popula-  
tions with differing degrees of exposure to ACC in-  
stitutions. It happens that my colleagues and I, over  
the last decade, have run two such projects, deploy-  
ing behavioral experiments among 15 diverse popu-  
lations drawn from some of the remotest corners of  
the globe (Henrich, 2000; Henrich et al., 2004; Hen-  
rich et al., 2005; Henrich et al., 2001; Henrich et  
al., 2006). Our results contradict the authors' central  
claims. In dictator, ultimatum, third party punishment  
and public goods games, we used actual allocation  
decisions among anonymous members of these com-  
munities to measure altruism, fairness, willingness to  
punish unfairness, and cooperation. These decisions  
had real financial consequences and involved non-  
trivial sums of real money—we typically put one-day's  
wage on the line (although wage labor was rare or  
non-existent in several of our societies). With regard  
to the question at hand, the findings are unambigu-  
ous: Our American samples are among the most equi-  
tably minded, cooperative, and altruistic people across

our 15 populations. This finding was replicated in  
our second project, even after several methodological  
adjustments.

I suspect that the difference between our results  
and Kasser et al.'s arises from the fact that we mea-  
sured behavior, with real costs and benefits, while much  
of their data arises from people's rhetoric—their talk  
about "values" or justifications, etc. (below I will also  
outline some concerns about their use of behavioral  
data). Cultural transmission often operates on two (at  
least) separate channels: (1) what people do (with in-  
ferences about underlying motivations from observa-  
tions), and (2) what they say (or how they explain  
what they do). Evidence for this comes from work  
done predominately in the 1960's and 1970's on al-  
truism and social learning in psychology. Kids learn  
what *to do*—as in how altruistic to be in charitable  
donations—by observing the altruistic or selfish ac-  
tions of models. However, they learn what to say, or  
how to answer a question about motivations, values,  
or goals, by listening to how other people answer such  
questions (Bryan, Redfield, and Mader, 1971; James H.  
Bryan and Nancy H. Walbek, 1970; James H. Bryan  
and Nancy Hodges Walbek, 1970). Much of the ACC  
evidence may be about the rhetoric of the ACC, not the  
behavior or the actual underlying motivational prefer-  
ences. Having lived two years of my life as an ethnog-  
rapher in small-scale subsistence-oriented societies in  
South America and Oceania, it is clear to me that even  
when Americans are being altruists, they like to justify  
themselves with appeals to self-interest. The "norm  
of self-interest" is actually a norm of self-interested  
rhetoric.

Our experimental results are consistent with much  
theory in cultural evolutionary anthropology (Richer-  
son and Boyd 2000). In considering ACC institutions,  
and capitalistic societies, I think Kasser et al. may have  
missed a crucial dynamic. Competition among institu-  
tions, societies, and organizations favors those forms  
that are best able to promote cooperation, stability (fair-  
ness), and trust among their members. Over the long  
run, and on average, these institutions, etc. will out-  
compete those who foster selfishness, disloyalty, and  
distrust among their members. What seems to occur  
most often is that successful cooperative institutions,

115 organizations, and societies are preferentially imitated  
 by less successful ones, and those aspects that favor *a*  
*certain kind of* cooperation, fairness, and trust spread  
 (Henrich 2004). Such processes can help explain our  
 behavioral data and differences in economic produc-  
 120 tion. Of course, this is no Panglossian prescription,  
 as competition among groups may also favor greater  
 commitments to work, money, consumption, etc. for  
 the same reasons. And, this *certain kind of prosocial-*  
*ity* is not the same as the trust, loyalty, and devotion to  
 clan, tribe, village, and extended kinship organiza-  
 tions that has characterized much of human history, and re-  
 mains central to social life in many places. Whether  
 these effects are judged “costs” and end up reducing  
 125 total happiness is certainly possible (likely even), and  
 worthy of exploration.

Several pieces of evidence cited by Kasser et al.  
 involve correlations between things like “materialis-  
 tic values” and “generosity”, based on samples taken  
 130 within the U.S. Such evidence, which is scattered  
 throughout the paper, ignore the fact that often substan-  
 tial amounts of the variance in such measures are ac-  
 counted for by genetic variation among subjects within  
 populations (Plomin, Defries, and McLearn 2000). The  
 correlation between materialistic values and lack of  
 135 generosity, for example, might occur because the same  
 genes that influence the acquisition of materialistic val-  
 ues also influence generosity. This seems especially  
 likely since most Americans, and in particular most  
 140 university students, experience similar degrees of the  
 ACC. Even if one were to show that individuals who  
 had more contact with ACC institutions had more ma-  
 terialistic values and showed less generosity, the cor-  
 relations could still be caused by the fact that the same  
 145 underlying genetic variation influences all three. Thus,  
 the authors are using within-group correlations to sup-  
 port arguments of causality for differences between  
 groups. Between-group differences, however, are of-  
 ten caused by quite difference factors than with-group  
 150 differences. Empirically, evidence supporting the au-  
 thors’ hypotheses will either need to control for genetic  
 variation among individuals within groups, or compare  
 populations with differing exposure to the ACC.

**Note**

Address correspondence to Joseph Henrich, De-  
 partment of Psychology, Department of Economics, 155  
 University of British Columbia, Vancouver, British  
 Columbia. E-mail: joseph.henrich@gmail.com

**References**

Bowles, S. (1998). Endogenous Preferences: The Cultural Conse-  
 quences of Markets and other Economic Institutions. *Journal* 160  
*Economic Literature XXXVI*, 75–111.

Bryan, J. H., Redfield, J., and Mader, S. (1971). Words and  
 Deeds about Altruism and the Subsequent Reinforcement  
 Power of the Model. *Child Development*, 42(5), 1501–  
 1508. 165

Bryan, J. H., & Walbek, N. H. (1970). The Impact of Words and  
 Deeds concerning Altruism upon Children. *Child Development*,  
 41(3), 747-757.

Bryan, J. H., and Walbek, N. H. (1970). Preaching and Practicing  
 Generosity: Children’s Actions and Reactions. *Child Develop-* 170  
*ment*, 41(2), 329–353.

Henrich, J. (2000). Does Culture Matter in Economic Behavior: Ulti-  
 matum Game Bargaining Among the Machiguenga. *American*  
*Economic Review*, 90(4), 973–980.

Henrich, J. (2004). Cultural Group Selection, Coevolutionary Pro-  
 cesses and Large-Scale Cooperation. *Journal of Economic Be-* 175  
*havior & Organization*, 53, 3–35.

Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., & Gintis,  
 H. (Eds.). (2004). *Foundations of Human Sociality: Economic*  
*Experiments and Ethnographic Evidence From Fifteen Small-* 180  
*Scale Societies*. Oxford: Oxford University Press. **Q1**

Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., and Gin-  
 tis, H., et al. (2005). ‘Economic Man’ in Cross-cultural Per-  
 spective: Behavioral Experiments in 15 Small-Scale Societies.  
*Behavioral & Brain Sciences* 28. 185

Henrich, J., Boyd, R., Bowles, S., Gintis, H., Camerer, C., and Fehr,  
 E., et al. (2001). In search of Homo economicus: Experiments  
 in 15 Small-Scale Societies. *American Economic Review*, 91,  
 73–78.

Henrich, J., McElreath, R., Barr, A., Ensminger, J., Barrett, C., and  
 Bolyanatz, A., et al. (2006). Costly Punishment Across Human  
 Societies. *Science*. 190

Plomin, R., Defries, J., and McLearn, G. E. (2000). *Behavioral Ge-*  
*netics*: W. H. Freeman & Company. **Q2**

Richerson, P., and Boyd, R. (2000). Complex Societies: The Evolu-  
 tionary Dynamics of a Crude Superorganism. *Human Nature*,  
 10, 253–289. 195