

*5th Annual
California Workshop on
Evolutionary
Perspectives of
Human Behavior*

May 13-15th, 2011

			An Anthropology	
Ev Evolution	Br Brain	Pr Primate	Bi Biology	
Be Behavior	Mi Mind	Hu Human	Ec Ecology	Ca California
Cu Culture			Ps Psychology	



Conference Overview

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- Camping
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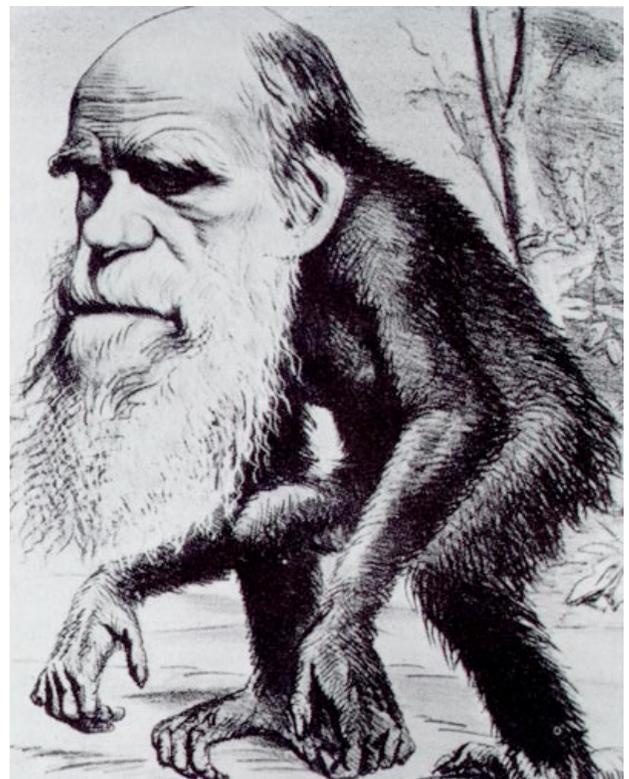


Aims & Scope

Since the inaugural meeting in 2007, this conference has been guided by a single, unifying goal; to maximize familiarity and opportunity for interaction among the greater California community investigating human behavior from an evolutionary perspective.

This small meeting emphasizes discussion and collegiality, and celebrates our points of convergence and divergence. Collectively, California is home to the largest community of scholars working in this area, and is characterized by a diversity of approaches and areas of expertise.

The program this year includes faculty, postdocs, and graduate students from UCD, UCLA, UCSB, CalPoly, CSU Fullerton, and Stanford University. We welcome both the familiar and new faces to the 2011 meeting.



REGISTRATION & PARTICIPATION

in 4 EASY STEPS!

By May 1st:

- 1) Complete Registration Doodle Survey
(<http://www.doodle.com/ifqmcgfy87m5e53w>)

- 2) E-mail a photo of yourself, affiliation, & several key words describing your research interests to katiehinde@gmail.com for inclusion in the program.

Lucy Australopithecus
Hadar, Ethiopia
Optimal foraging, social
behavior, kin selection



- 3) Prepare *1* Slide (ppt) for the Lightning Round Saturday morning. This slide should have your name, affiliation and feature something cool about your research- figure of a recent result, a methodological validation, or just an exciting question rumbling around your head. E-mail the slide to Stacey Rucas srucas@calpoly.edu

At the Fri. Opening Reception or Sat. Dinner Party:

- 4) Students & Post-Docs: please bring a bottle of wine or a 6-pack of beer, Faculty please bring two bottles of wine or 12-pack of beer. All workshop meals and non-alcoholic beverages have been generously provided by our sponsors (see page 5).



Camping at Pismo State Beach has become an increasingly popular option for attendees at the Workshop. In 2011 this will also serve as the location of our Opening Reception Friday night.

The Oceano Campground, PSB includes shower facilities, and is about a 15 minute drive from the conference site.

This year we have reserved campsites to accommodate 16 people Thursday night, and 24 people both Friday and Saturday nights.

Camping fees are flat \$15 for the weekend, paid to Adrian Bell, whether you are staying 1, 2, or 3 nights.

To reserve a camping spot, please complete the doodle survey at:
www.doodle.com/e3r9q4ar93nmumtq

Um... also... we will try and get campsites that don't have big trees this year as 4AM Saturday morning in 2010 was super exciting.



The 5th Annual Workshop on Evolutionary Perspectives of Human Behavior has been made possible by the generous contributions of the following organizations:

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SATURDAY May 14, 2011

Body strength, rape propensity, and the expected cost of rape

Sangin Kim, Integrative Anthropological Sciences, UCSB 10:15-10:35

Current theories of rape focus primarily on the female-male relationship in seeking factors that explain differences in the propensity to rape. One leading evolutionary view, "the mate deprivation" hypothesis, suggests that men with low mating prospects will benefit from rape the most. Feminist theory argues that rape does not originate in the motivation to gain sexual access, but rather originates in hostility to women. In contrast, this talk develops and tests a complementary theory based on the theory of animal conflict. In this view, male-male relationships are proposed to also play a role in explaining differences in the propensity to rape. According to this hypothesis, men who have a greater ability to inflict costs on others (high formidability), or who have a greater ability to confer on or withhold benefits from others should be less deterred from raping, other things being equal. Because of their greater bargaining leverage, such men are less likely to receive punishment from other men than men of lower power or status. Moreover, they are also more likely to prevail in conflicts of interest with women over copulation, leading to rape. To test this theory, questionnaires were administered to U.S. male college students. Results support the predictions derived from the hypothesis.

Human social dominance and culture's role in mate competition

Kristin Rauch, Anthropology, UCD 10:35-11:15

Compared to research on mate preferences and choice, relatively little attention has been paid to human forms of mate competition. Because mate competition strategies are facilitated by high social rank, the struggle over social dominance can be viewed as a mating strategy in and of itself. Unlike other animals, human dominance hierarchies are institutionally reinforced through laws, myths, norms, ideologies, etc. These institutional reinforcements can, and often do, serve to expand the mating pool for dominant males and restrict it for subordinate males. As such, culturally-granted authority opens the door for unique aspects of human mate competition. In what ways can socially dominant humans use their authority to shape features of culture in their reproductive favor? Particular cases of such implicit mate competition are often quite subtle and attributed to non-sexual motivations.

Examples specific to Black and White American males can illustrate these concepts, showing how social dominance, sanctioned and codified by cultural features, facilitates mating success. Beliefs about in-group entitlements to mating access, and concerns over out-group threats to that privilege, often fuel racial antagonisms. This perspective directly links racism and prejudice to concerns over male sexual access. Examples include miscegenation laws, lynchings, and the war on drugs.

Can Men Detect Ovulation?

Martie Haselton & Kelly Gildersleeve, Department of Psychology, UCLA 11:15-12:00

In contrast to our closest cousin, the chimpanzee, humans appear at first to lack cues of impending ovulation that would mark the fertile period in which a female can become pregnant. Consequently, that ovulation is "concealed" in women has long been the consensus among scientists studying human mating. A recent series of studies shows, however, that there are discernible cues of fertility in women's social behaviors, body scents, voices, and, possibly, aspects of physical beauty. Some of these changes are subtle, but others are strikingly large (we report effect sizes ranging from small, $d = 0.12$ to large, $d = 1.20$). Moreover, emerging evidence suggests that women's male partners may adaptively shift their behavior in response to cues of approaching ovulation. These results have far-reaching implications for understanding fluctuations in attraction, conflict, and relationship dynamics.



Hierarchy, social inequality and reciprocity in chimpanzees, bonobos and humans

Adrian V. Jaeggi, JMG. Stevens, C. von Rueden, C. van Schaik & M. Gurven, IAS, UCSB 1:00-1:40

Reciprocity can stabilize cooperation among non-relatives and relatives alike and can thus greatly increase individual fitness. However, strong dominance hierarchies put a constraint on reciprocity as dominants in despotic groups can simply acquire desired goods or commodities by force without having to return the favor. Using data on food sharing, grooming and agonistic support from several groups of captive chimpanzees and bonobos we found strong evidence for such a despotism constraint. This suggests that relatively egalitarian hierarchies were a precondition for the evolution of wide-spread reciprocity as documented in most human small-scale societies. Furthermore, individuals should be able to flexibly adapt to the prevailing social conditions by engaging more or less readily in cooperative interactions, depending on the expected average pay-offs from reciprocity. We are currently investigating these patterns in a forager-horticultural society, the Tsimane of Bolivia. While generally relatively egalitarian, as evidenced by the absence of formal hierarchies, the Tsimane vary greatly in the degree of status differences and social inequalities across villages and we expect this to be reflected in cooperative behaviors such as sharing food or providing care and support. Combining evidence from nonhuman primates and human small-scale societies alike thus allows us to draw conclusions about the evolution of human cooperation in an ancestral environment.

Orderly anarchy & The population ecology of despotism

Bob Bettinger & Bruce Winterhalder, Anthropology, UC Davis 1:40-2:30

There is good reason to question the received textbook wisdom that hunter-gatherer sociopolitical evolution follows the same trajectory of increasingly complex and hierarchical formations that unfold in the presence of agriculture. Ethnographic western North America provides some evidence for this (e.g., Northwest Coast) but less than for an alternative sequence in which adaptive intensification, as measured by, say, population density, is inversely related to sociopolitical complexity (e.g., Northern California). This is likely the result of social fissioning permitted by technological advancements and development of social relations that, in keeping with motivation crowding theory, preserved order and

promoted subsistence intensification in the presence of anarchy.

On the other hand, population in-fill and intensification do appear in other cases to induce social integration via political control, exploitation and social stratification. That is, we must also understand why evolution sometimes results in the integration and despotism of prehistoric ranked societies. Building from the observation that prehistoric settlement of the Northern Channel Islands off the coast of Santa Barbara follows a pattern predicted by the Ideal Free Distribution (IFD), I describe results of attempts to formulate a despotic variant of that population ecology model. I show how this work links backward in time to state origin proposals by Robert Carneiro (1970s), and how we might test its predictions against data from the Channel Islands, Rapa, and the Maya polities of Belize and Guatemala.



Why do men seek positions of status and leadership?

Chris von Rueden, Integrative Anthropological Science, UCSB 2:30-3:10

The relationship between social status and reproductive success in small-scale societies can provide insight into how natural selection may have acted on status-seeking behavior in ancestral human environments. With data from the Tsimane horticulturalists of Bolivia and other small-scale societies, I show that high male status increases lifetime fitness, and I analyze the factors responsible for increases in surviving offspring among high status men. Interview data from the Tsimane suggest that mate acquisition and social support mediate the status-fitness relationship. Some of the fitness benefits of high status may accrue in the context of leadership within collective actions. However,

observation and experimental induction of collective action suggest that Tsimane leaders do not differentially benefit from the division of spoils (although leadership may improve team efficiency). Identifying the proximate pathways by which status and leadership generate current fitness sheds light on the kinds of social relationships evolution has motivated men to maintain.

Changes in Women's Feelings about their Relationships and their Partners Across the Ovulation Cycle

Christina Larson, Psychology, UCLA 3:25-3:45

Based on a growing body of research indicating that women's preferences for traits associated with heritable fitness differ between high and low-fertility phases of the ovulation cycle, we hypothesized that women's feelings about their romantic relationships and their relationship partners might differ as well, particularly if their partners do not possess traits associated with high heritable fitness. To test this hypothesis, in a set of two studies, we brought naturally cycling women involved in romantic relationships into the laboratory at the high and low-fertility points in their ovulatory cycles. Ovulation was confirmed using luteinizing hormone tests. Women rated how physically attractive their partners were—a proxy measure for heritable fitness, and at both sessions, they reported their current feelings about their relationship and their partners. We found that women's feelings about their relationships and their partners were more negative at high fertility than at low fertility if their partners were physically undesirable. These results suggest that relationship dynamics, including women's day-to-day satisfaction with their relationships and their partners, are affected by cycling reproductive hormones.



The Effect of Siblings on Attractiveness Ratings

Jason Williams Psychology & Child Development CSU Fullerton 3:45-4:30

Given that non-identical twin siblings share 50% of their genes, genes expressed in one sibling may be present but unexpressed in the other; i.e., the physical appearance of one sibling may give one a peek into the unexpressed genotype of the other. Thus selection pressures should exist such that traits of one sibling should affect the perceived mate quality of the other; specifically, if one's sibling possesses positive traits, this should raise one's own perceived quality, if negative this should lower it. We compared attractiveness ratings of photographs of same-sex siblings presented without being identified as such (in random order) to when presented sequentially and explicitly identified as siblings. Surprisingly, for female raters the sibling condition significantly increased attractiveness ratings for both the more- and less-attractive sibling. For male raters, there was no difference between the conditions. Results will be discussed in terms of differential selectivity between males and females, and that the mere presence of siblings suggests both higher genetic quality (more half-copies surviving to reproductive age), and extended investment (kin selection).

The attractiveness of a woman's partner affects whether she sleeps more or less at high fertility

Brooke Gentle Aaron T. Goetz & Elizabeth G. Pillsworth, Psychology, CSU Fullerton 4:30-4:50

Research has shown that near ovulation women are judged as more attractive, express greater preferences for masculine and symmetrical men, and eat less and walk more compared to non-fertile phases of the cycle. Women with less sexually attractive primary partners report increased sexual desire for men other than their partners at high fertility compared to low fertility. All of these shifts may benefit women by increasing their likelihood of mating with genetically high-quality men when they are most likely to conceive. In light of this research, the present study aimed to document changes in sleep across the ovulatory cycle. This study hypothesized that naturally ovulating women (i.e., those not using hormonal birth control) would experience a change in sleep during the fertile phase of their ovulatory cycle. Participants (N = 67 women) completed a 32 day daily diary in which they recorded the time they fell asleep, the time they woke up, and the length of their naps. After the diaries were completed, the average sleep time for high fertility and low fertility phase days, calculated from reported menstrual onset and cycle length, were

compared. This study found no main effect of fertility on sleep time but did find an interaction between partner attractiveness and fertility on sleep time. Women partnered with less attractive men experienced an increase in sleep during the fertile phase of their cycles while women with more attractive partners experienced a decrease in sleep. Possible explanations for these findings are discussed.

Mating and Parenting Effort in the Ecuadorian Amazon *John Patton & Brandon Rose, Anthropology, CSU Fullerton, 4:50-5:35*

Horticultural foragers in the Ecuadorian Amazon spend a considerable amount of energy and time in efforts devoted to hunting and status acquisition. This talk examines how these efforts translate to reproductive success. Specifically, the influences these efforts have on mate attraction, marriage outcomes, family size, and offspring health. The data presented in this talk covers nearly 2 decades of study in Conambo and surrounding communities, and outlines ongoing research projects of graduate students in Anthropology and Psychology at CSU-Fullerton.

SUNDAY May 15, 2011

Testing Evolutionary Perspectives on Sexuality: Initiating Large Scale Cross-Cultural and Internet Samples

David Frederick, Psychology UCLA, 8:45-9:25

We have a problem in social psychology. Around 70% of the participants in our studies are college students from Western contexts. The over-reliance on Western college samples limits our ability to test evolutionary hypotheses. In this talk, I present the results of two sets of studies drawing on wider populations. The first set, done in collaboration with the popular news website msnbc.com examined the prevalence of sexual jealousy and sexual regret in large Internet samples of adult U.S. men and women (Ns = 20,000 - 75,000). The second study, done in collaboration with Viren Swami and the 56 members of the International Body Project team, examined preferences for male and female body types in 41 sites across 10 world regions. In addition to commenting on the relevance of these findings to evolutionary hypotheses, I will comment on strategies for initiating low cost Internet and cross-cultural studies.

Human foraging behavior: Sex differences in mushroom gathering

Luis Pacheco-Cobos Anthropology, UC Davis 9:25-9:45

Today, the survival of many people in rural areas of the world still depends on their abilities to search or manage specific forest resources. The study of human-environment interactions requires of an interdisciplinary approach, where anthropology, psychology, biology and ecology can help us to understand such interactions in their appropriate contexts. My first approaches to study human foraging behavior, carried in a Nahua community in Central Mexico, consisted in: a) developing a method to spatiotemporally record the movements of mushroom gatherers, using Global Positioning System (GPS) devices; and b) using this method to compare the performance of men and women, in terms of their searching costs and benefits. The talk focus will be in the latter. I was interested in testing under field conditions the sex differences in spatial abilities, given that in laboratory tests men are traditionally reported to outperform women. The analysis of the foraging pathways I recorded showed that, when compared to men, women expended less energy to obtain similar amounts of fungi. These findings raised questions which might be relevant to study in the future, such as: are sex differences in fungi gathered or pathways followed of cultural or biological origin?



Is son preference ubiquitous in China? Evidence from two Sinicizing populations in the PRC

Siobhan Mattison, Anthropology, Stanford University 9:45-10:25

Son preference is a well-documented feature of many Asian populations. Its persistence and spread have garnered much attention in both theoretical and applied realms by researchers seeking to understand its roots and the

dynamics of its widespread transmission. In this talk, I question the ubiquity of son preference in China and suggest the need to explore characteristics of societies in which son preference is not the norm. Accordingly, I examine evidence for son-biased parental investment in two Sinicizing Chinese populations: contemporary Mosuo and historical Taiwanese aborigines. I explore factors associated with son preference in these communities and argue that these types of explorations will produce more generalizable explanations of sex-biased parental investment in the Chinese context.



Factors affecting intergenerational exchange and maintenance of diet and food preferences

*Jennifer Cullin, Anthropology, CSU Fullerton
10:25-10:45*

Questionnaires were administered to CSUF undergraduates enrolled in Health Science 101 classes to investigate factors affecting intergenerational diet continuity. This research was examined through the lens of cultural transmission theory, which makes specific predictions about switching models and information sources when introduced to a new environment. In regards to cultural transmission

theory, information obtained from family sources may be most relevant to the original cultural context of diet and nutrition; therefore, family sources may be less reliable models in a relatively new food environment. Thus, generational residence time was expected to be a main predictor of diet continuity. It was hypothesized that recent residents (generation status <2nd generation) would have lower intergenerational diet continuity than their residentially established (generation status >2nd generation) counterparts. SPSS version 19.0 will be used to test for differences in diet continuity between recent and established respondents. Models will be controlled for ethnicity, age, and gender. This research will add to the limited body of literature on diet and eating habits of transitioning young adults. It will also aid in the construction of more efficient nutrition intervention strategies for this subpopulation.

Way to mingle!



Kristin Rauch & Matt Zimmerman



Eric Schniter, Zach Simmons, Aaron Lukaszewski & Chris von Rueden