

# 3UC



## *The Second Annual 3UC Evolutionary Behavioral Sciences Conference*

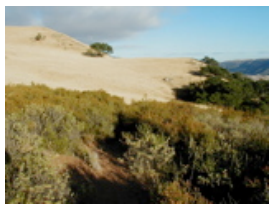
California Polytechnic State University, San Luis Obispo

March 15-16 2008

### Travel information

- Directions to Cal Poly
- Parking
- Directions to the Hotel

Page 2



### Conference overview

- Conference schedule
- Social activities
- Organization team
- Conference sponsoring

Page 3

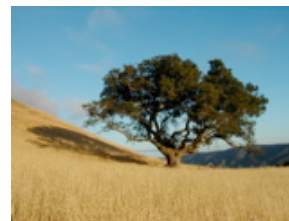


### Talks and special interest groups

- Domain specificity
- Reasoning
- Foraging
- Dominance
- Personality
- Prestige
- Status
- Ethnic markers
- Plasticity

Page 4-5

### Participating faculty



Page 6 (Cal Poly)  
Page 7 (UCD)  
Page 9 (UCLA)  
Page 11 (UCSB)

### Participating undergraduates, predocs and postdocs

Page 8 (UCD)  
Page 10 (UCLA)  
Page 12 (UCSB)

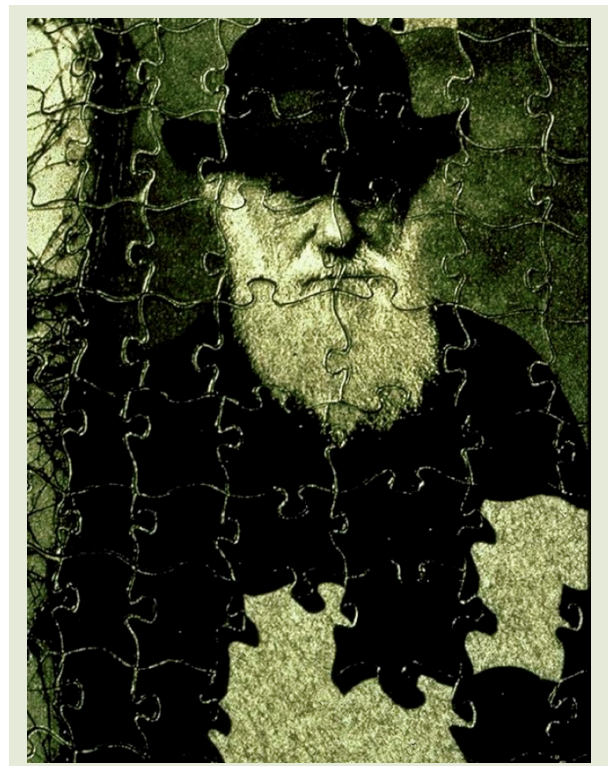


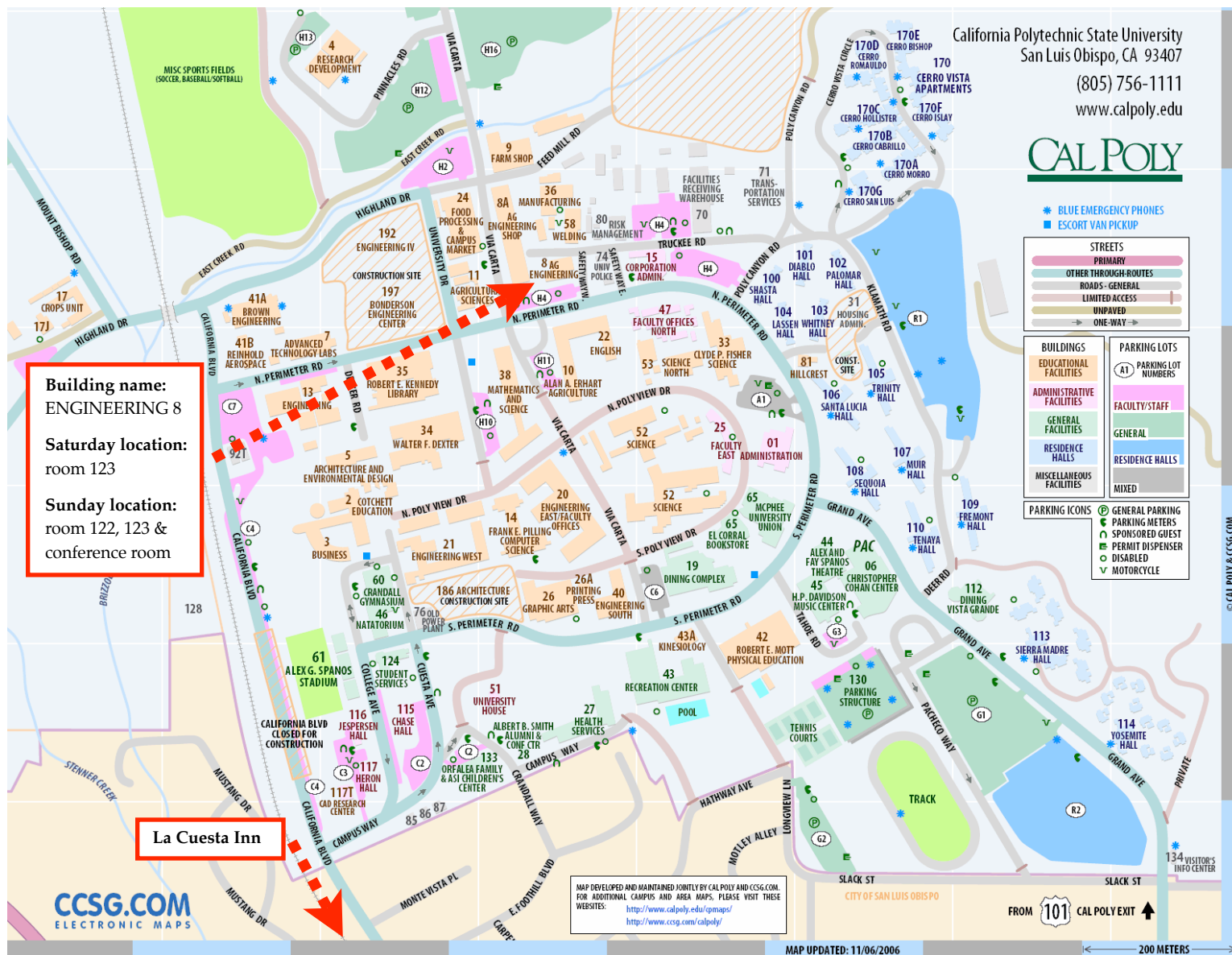
## Aims and scope

The application of theories and methods derived from evolutionary biology and ecology to the study of human behavior is a rapidly expanding enterprise — one that holds great promise for a true consilience of knowledge.

Collectively, UCD, UCLA, and UCSB are home to the world's largest community of scholars working in this area. While sharing both intellectual and geographical propinquity, these groups are also characterized by a diversity of approaches and areas of expertise.

This second annual meeting brings together scholars from these three campuses in an effort to advance the field through discussion of points of convergence and divergence across differing perspectives, and facilitate the establishment of collaborations that leverage complementary skills and approaches.





## Directions to Cal Poly

### Traveling South on Highway 101:

As you approach San Luis Obispo, exit the freeway at Monterey St. (the first exit in SLO). Make a right turn, then an immediate left turn onto the frontage road (you will be going the same direction you were on the freeway). Go approximately 3 blocks to Grand Ave, turn right (going uphill) and go about 1/4 mile to the south entrance of the campus.

### Traveling North on Highway 101:

Go through much of San Luis Obispo and exit at the Grand Avenue/Cal Poly exit. Turn left onto Grand Avenue and go uphill approximately 1/4 mile to the south entrance of the campus.

## Parking

From the hotel, you will go right on Monterey, Right on Grand, Right on N. Perimeter Road, Right on Safety Way West (the entrance right after the police

station). There is a parking lot (H4) right there in front of Building 8.

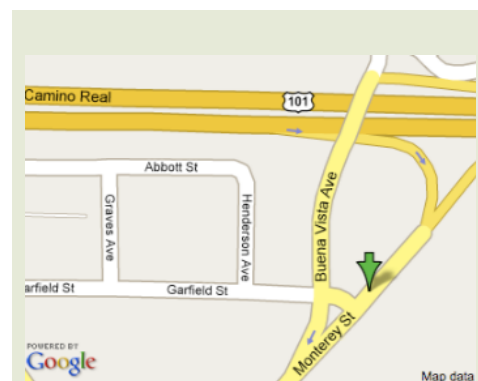
## Directions to the Hotel

### Traveling South on Highway 101:

Take the Monterey St. exit off of the freeway. The exit will be the first San Luis Obispo city exit and will be on your right. At the top of the ramp you will come to a stop. Take a left and cross over the freeway and onto Monterey St. Proceed approx. 500 yards until you reach the hotel. The La Cuesta Inn will be on your right at 2074 Monterey St.

### Traveling North on Highway 101:

Take the Monterey St. exit off of the freeway. The exit will be the last San Luis Obispo city exit - and will be on your right. The off ramp gently circles you onto Monterey St. where you will proceed approx. 500 yards until you reach the hotel. The La Cuesta Inn will be on your right at 2074 Monterey St.



**La Cuesta Inn**  
**2074 Monterey Street**  
**San Luis Obispo, CA 93401**  
**phone: 800-543-2777**  
**email: frontdesk@lacuestainn.com**

# Conference schedule

## SA 9.00 am - 10.20 am

Talk, Richard McElreath, room 123  
Evolutionary models of personality

## SA 10.20 am - 10.40 am

Coffee break

## SA 10.40 am - 11.20 am

Talk, Carolyn Hodges, room 123  
Perceptions of dominance and attractiveness in male voices suggest functional specificity in signal attention

## SA 11.20 am - 12.00 pm

Talk, Susan Glover, room 123  
Propaganda, public information, and prospecting: Explaining sub-optimal central place foraging in a late 19th Century Colorado silver rush

## SA 12.00 pm - 1.30 pm

Lunch break

## SA 1.30 pm - 2.50 pm

Talk, Clark Barrett, room 123  
Reconciling domain specificity and cultural transmission

## SA 2.50 pm - 3.10 pm

Coffee break

## SA 3.10 pm - 3.50 pm

Talk, Karthik Panchanathan, room 123  
The evolution of a prestige-bias in cultural transmission

## SA 3.50 pm - 4.10 pm

Coffee break

## SA 4.10 pm - 5.30 pm

Talk, Tamsin German, room 123  
Cognitive mechanisms for representing and reasoning about artificial kinds

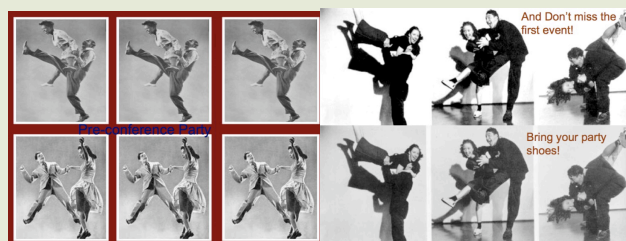
## SU 9.00 am - 12.00 pm

Special interest group 1, room 123  
Status: Multiple behavioral strategies?

Special interest group 2, room 122  
Ethnic markers: Origins and consequences

Special interest group 3, conference room  
Mechanisms of adaptive plasticity

## Social activities



Where:  
Home of Terry & Debbie Jones  
When:  
Friday Mar 14th 7:00pm  
Wine, Beer, and Snacks provided

### Friday pre-conference party (directions from La Cuesta Inn):

- 1) Go right on Monterrey out of the hotel
- 2) Merge 101 - South left ramp
- 3) Exit Madonna Rd
- 4) Turn left on Madonna
- 5) Turn right on Los Osos Valley Road
- 6) Turn left on Diablo Dr
- 7) End 1725 Diablo Dr

If necessary, check Stacy Rucas's conference link for further details:  
<http://cla.calpoly.edu/~srucas/Evolution%20Conference%2008.htm>

## Organization team

**Stacey Rucas — Cal Poly San Luis Obispo**

**Kristin Rauch & Pete Richerson — UC Davis**

**Greg Bryant, Matthew Gervais, Willem Frankenhuis & Andreas Wilke — UC Los Angeles**

**Aldo Cimino & Steve Gaulin — UC Santa Barbara**

Many thanks to our helpful colleagues at Cal Poly.

## Conference sponsoring

Dean of Social Sciences, UC Santa Barbara.

Dean of the Mathematical, Life and Physical Science Division, UC Santa Barbara.

Dean of the Graduate Division, UC Santa Barbara.

Division of Social Sciences, UC Los Angeles

Cal Poly Social Sciences Students.

Cal Poly Social Sciences Department.





## The evolution of a prestige-bias in cultural transmission

Karthik Panchanathan (buddha@ucla.edu),  
SA 3.10pm - 3.50pm, room 123.

Social transmission is a particularly good way of transmitting adaptive behavior from one generation to the next when environments vary on intermediate time-scales. Formal models have demonstrated how and why certain types of social transmission, like a conformist bias, are favored by selection. Henrich and Gil-White have proposed that selection would favor a psychological design that preferentially imitates successful models. They argue that this process would culminate in a system in which successful individuals are accorded "prestige" and ignorant individuals ingratiate themselves to these prestigious individuals, trading



deference payments for access to adaptive behavior. Here, we sketch a preliminary model of Henrich and Gil-White's argument, focusing on the evolution of a prestige-bias, while, for the time being, ignoring the evolution of prestige. Our research confirms Henrich and Gil-White's intuitions; over a broad range of conditions, prestige-biased imitators invade a population of random imitators. And, as the frequency of prestige-bias imitators increases, the mean fitness of the population increases as well. This makes sense because a prestige-bias is an adaptive filter, picking out superior cultural variants. As a prestige-bias is likely to be costly relative to random imitation (e.g., ranking several models in terms of success), there is a range of conditions under which a prestige-bias readily evolves but does not go to fixation; random imitators persist as second-order information scroungers.

*Sunday morning from 9am-12pm there will be three concurrent special interest group sessions meant to facilitate discussions, in the context of diverse skill sets, that will contribute substantively to the research of the participants.*

## Status: Multiple behavioral strategies?

Special interest group 1  
Facilitator: John Tooby  
SU 9am - 12pm, room 123.

Does "status" (dominance, formidability, prestige, rank, etc.) correspond to multiple dimensions in humans and/or non-human primates or other animals? Does "status" in humans have a clear homologue in non-human primates? Are there various kinds of adaptive problems (at various levels?) that "status" addresses, and/or various mechanisms/strategies for attaining "status"? Suggested topics include the evolution/emergence of hierarchies; aggression; wealth; leadership; and the possibility of multiple status niches with corresponding behavioral strategies and possible calibration to differentially pursue them.

## Ethnic markers: Origins and consequences

Special interest group 2  
Facilitator: Richard McElreath  
SU 9am - 12pm, room 122.

What are the origins of ethnic markers through organic and cultural evolutionary processes and their interaction? Are there various complementary or competing ultimate hypotheses regarding their origins? What sorts of proximate mechanisms instantiate them? Are certain kinds of traits more likely to become ethnic markers? What kind of impact does an "ethnic marker psychology" have in the modern world? To what sort of entity do we even refer when we say "ethnic"? Suggested topics include the traits and interaction types

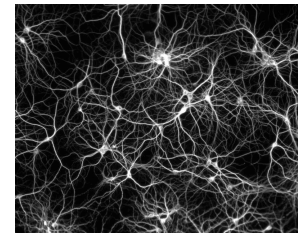


relevant to coordination costs; the proximate emotions regulating assortment; choosing "friends"; choosing social learning models; cultural learning across ethnic groups; and the formation of ethnic boundaries.

## Mechanisms of adaptive plasticity

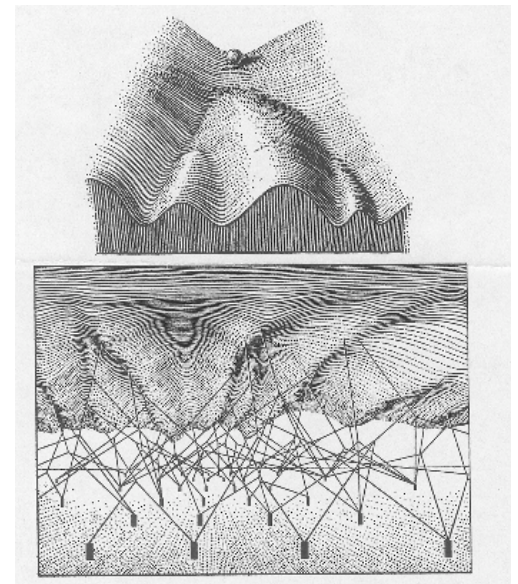
Special interest group 3  
Facilitator: Clark Barrett  
SU 9am - 12pm, conference room.

What are the various mechanisms for instantiating adaptive plasticity, and do these correspond to distinct sorts of selective pressures? Do EP, HBE, and Dual Inheritance Theory emphasize different kinds of plasticity?



What are the mechanistic entailments of these different kinds? When do we differentially predict for, and how do we empirically distinguish be-

tween, different sorts of plasticity? Suggested topics include the selective pressures favoring different kinds of flexibility; the heritability of flexibility; how to distinguish mechanisms of plasticity when we observe it phenotypically; and the relative roles of different kinds of plasticity in different evolutionary approaches to human behavior.

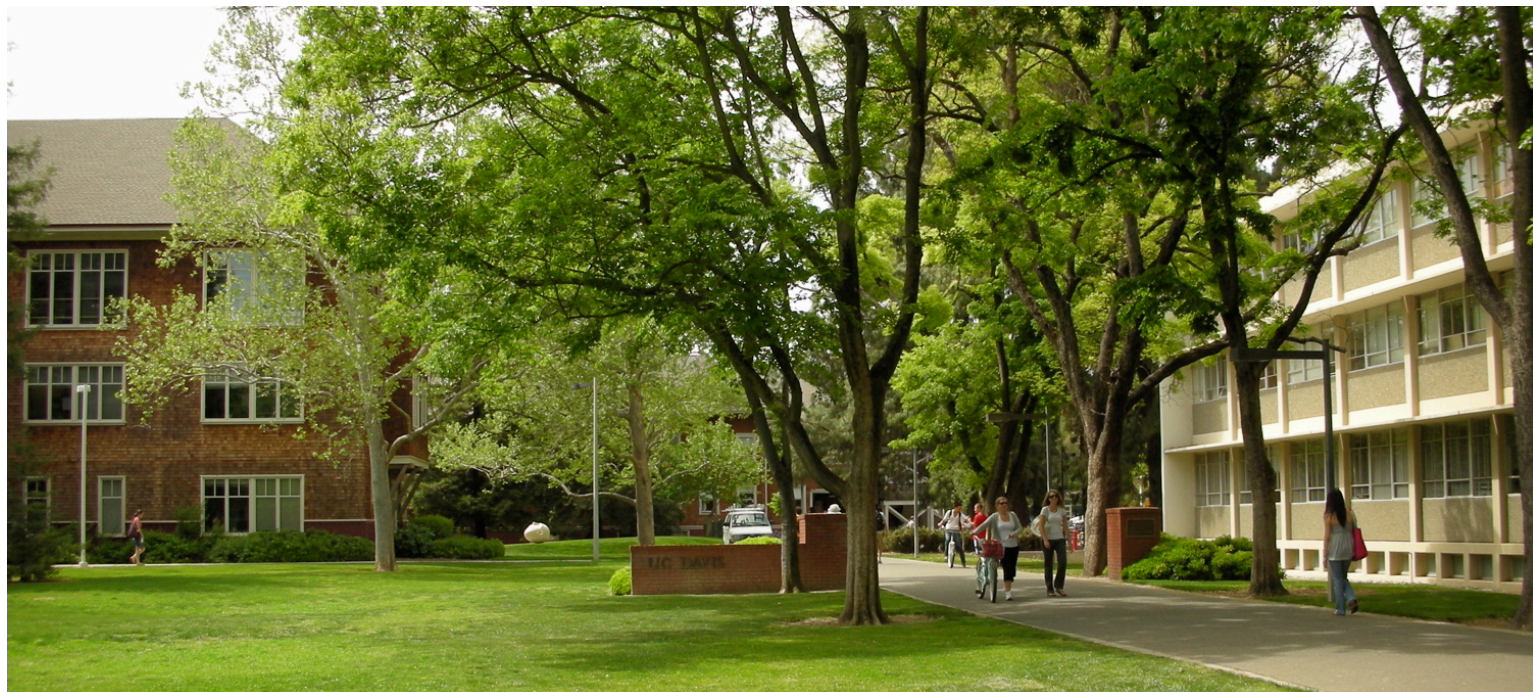




**Stacey Rucas,  
Anthropology**



Women's social dynamics; reproductive ecology; endocrinology and behavioral ecology of sleep.



**Robert Bettinger,  
Anthropology**



Hunter-gatherers; cultural transmission; origins of agriculture.

**Mark Grote,  
Anthropology**



Population genetics and genomics.

**Andrew Marshall,  
Anthropology**



Primatology; primate evolutionary ecology; forest ecology; conservation; Indonesia.

**Richard McElreath,  
Anthropology**



Social learning; cultural dynamics; theoretical evolutionary ecology.

**Lesley Newson, Psychology  
(University of Exeter)**



Cultural evolution; evolutionary ecology; transmission bias.

**Pete Richerson,  
Environmental Science & Policy**



Cultural evolution; theory and experiments; limnology (aquatic ecology).

**Bruce Winterhalder,  
Anthropology**



Behavioral and evolutionary ecology; cultural ecology; hunter-gatherers; agriculturalists/pastoralists; models of human adaptive processes; origins of agriculture.

**John Bunce,  
Anthropology**



Primate behavioral ecology and genetics; evolution of color vision.

**Katie Demps,  
Anthropology**



Cultural evolution; social learning strategies; ecological behavior; religious conversion dynamics.

**Sue Glover,  
Anthropology**



Economic anthropology; behavioral ecology; frontiers; risk and uncertainty; demography; spatial and historical methods.

**Vicken Hillis,  
Ecology**



Cultural evolution; ethnic markers; cooperation; agricultural development; game theory.

**Kristin Rauch,  
Anthropology**



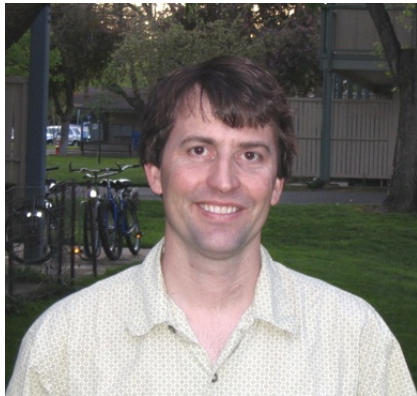
Mate choice; assortative mating; sexual selection; human behavioral ecology.

**Ryan Schacht,  
Anthropology**



Human behavioral ecology; sexual selection; mate choice; sex ratio; Guyana.

**Nathan Stevens,  
Anthropology**



Archaeology (California and the Great Basin); hunter-gatherers; human behavioral ecology; organization of technology; cultural change and transmission.

**Matt Zimmerman,  
Ecology**



Cultural evolution; evolutionary ecology; transmission biases.



**Clark Barrett,  
Anthropology**



Domain specificity; modularity; predator-prey cognition; animacy detection.

**Greg Bryant,  
Communication Studies**



Language and speech; inferential communication; cognitive science; evolutionary psychology.

**Daniel Fessler,  
Anthropology**



Emotions; cooperation; disease avoidance; reputation.

**Martie Haselton,  
Communication Studies and Psychology**



Evolved psychology; communication; mate choice; changes in women's social behavior across the ovulatory cycle; rationality.

**Joe Manson,  
Anthropology**



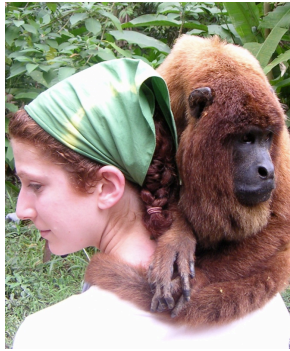
Primate behavior; social relationships; cultural primatology; mate choice.

**Susan Perry,  
Anthropology**



Social Learning; communication; social relationships; capuchins; development.

**Beth Di Leone,  
Psychology**



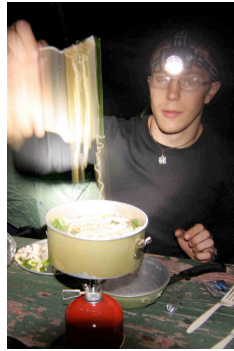
Animal behavior; cognitive psychology.

**Willem Frankenhuis,  
Anthropology**



Modularity; plasticity; domain specificity; animacy.

**Matthew Gervais,  
Anthropology**



Moral psychology; convention; contempt; overimitation; ethnic markers.

**Katie Hinde,  
Anthropology**



Reproductive investment; milk production; individual variance; infant outcomes; rhesus macaques.

**Bailey House,  
Anthropology**



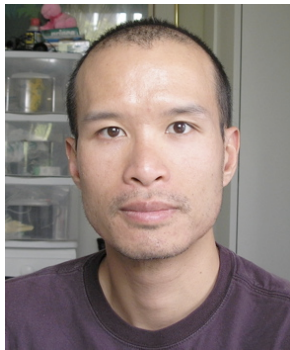
Prosocial preferences; decision-making biases; infant and non-human primate social cognition.

**Michelle Kline,  
Anthropology**



Ethnic psychology; cultural transmission.

**Stephen Le,  
Anthropology**



Time discounting; cooperation; prisoner's dilemma; context dependence; game theory.

**Sarah Mathew,  
Anthropology**



Evolution of cooperation; voluntary participation in models of cooperation; cooperation in warfare; psychological adaptations for war; cultural group selection.

**Cristina Moya,  
Anthropology**



Evolution of social group categorization; inductive reasoning; cues to ethnicity; coordination costs across group boundaries.

**Karthik Panchanathan,  
Anthropology**



Reciprocity; reputation; inter-group psychology.

**Elizabeth Pillsworth,  
Anthropology**



Mate choice; menstrual cycle; Shuar.

**Anne Pisor,  
Anthropology**



Evolutionary psychology; mate choice.

**Jeffrey Snyder,  
Anthropology**



Sexual selection; female mate preferences; male aggression; male status.

**Andreas Wilke,  
Psychology**



Human cognitive evolution; foraging behavior; decision-making; behavioral ecology; MatLab.



**Leda Cosmides,  
Psychology**



Evolutionary psychology; cognitive science; evolutionary biology; reasoning; motivation.

**Steven Gaulin,  
Anthropology**



Waist-hip ratio; spatial ability; voice; sex differences; fat.

**Tamsin German,  
Psychology**



Theory of mind; tool use; conceptual development; categorization.

**Michael Gurven,  
Anthropology**



Life history evolution; cooperation; demography and health; foraging and hunter-gatherers; aging and development.

**Jim Roney,  
Psychology**



Courtship; mate preferences; sex hormones.

**John Tooby,  
Anthropology**



Evolutionary psychology; behavioral ecology; evolutionary biology; cognitive science; emotions / motivations.

**Eyal Aharoni,  
Psychology**



Punishment;  
psychopathy;  
aggression.

**Aldo Cimino,  
Anthropology**



Coalitional psychology;  
hazing; ritual;  
cooperation; evoked  
culture.

**Andy Delton,  
Psychology**



Cooperation; cognitive  
and computational  
approaches to  
psychology.

**Elsa Ermer,  
Psychology**



Status; coalitional  
psychology; social  
reasoning; risk taking;  
cognitive neuroscience.

**Kate Hanson Sobraske,  
Anthropology**



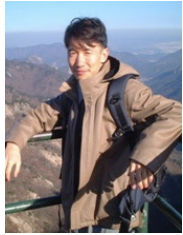
Mate value; individual  
differences in mate  
preferences; pair bond  
formation.

**Carolyn Hodges,  
Anthropology**



Vocal signaling;  
intrasexual competition;  
sex differences; emotion  
and expression; status.

**Sangin Kim,  
Psychology**



Cooperation; emotions;  
theory of mind; game  
theory.

**Max Krasnow,  
Psychology**



Foraging; tool-artifact-  
function reasoning;  
cooperation; concepts;  
computational  
psychology.

**Julian Lim,  
Anthropology**



Gratitude; morality;  
intentions; friendship;  
reciprocity.

**Anthony Lopez,  
Political Science**



International relations;  
evolutionary political  
psychology; coalitional  
psychology; aggression.

**Aaron Lukaszewski,  
Psychology**



courtship signaling;  
dominance and status in  
men; female mate  
preferences;  
testosterone.

**Jeff Niehaus,  
Psychology**



Visual attention capture  
and cuing; agency and  
animacy; belief-desire  
reasoning.

**David Pietraszewski,  
Psychology**



Coalitional / alliance  
psychology; accent; race.

**Theresa Robertson,  
Psychology**



Social exclusion;  
rejection; belonging  
regulation; rejection as  
recalibrating event.

**Chris von Rueden,  
Anthropology**



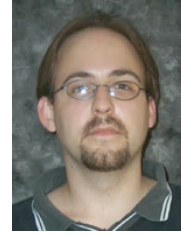
Life history evolution;  
health; male social status  
and leadership.

**Eric Schniter,  
Anthropology**



Life history evolution;  
culture ontogeny,  
distribution and  
transmission; older age.

**Aaron Sell,  
Psychology**



Anger; aggression;  
formidability; RHP.

**Zach Simmons,  
Psychology**



Behavioral  
endocrinology; female  
mate preferences;  
energetic condition /  
energy balance.

**Daniel Sznycer,  
Anthropology**



Shame; pride;  
cooperation;  
adaptationist models of  
culture.

**Danielle Truxaw,  
Psychology**



Tool-artifact-function  
reasoning; foraging;  
precautionary reasoning

**Annie Wertz,  
Psychology**



Theory of mind;  
cognitive development.