

NorthEastern Evolutionary Psychology Society

FIFTH ANNUAL CONFERENCE

BINGHAMTON UNIVERSITY, STATE UNIVERSITY OF NEW YORK

APRIL 1-3, 2011



State University of New York

TABLE OF CONTENTS

WELCOME TO NEEPS 2011.....	2
BINGHAMTON MAP.....	3
ANNOUNCEMENTS/ACKNOWLEDGEMENTS.....	4
BRIEF TIMETABLE.....	5
PROGRAM OF EVENTS.....	
FRI., APRIL 1.....	6
SAT., APRIL 2.....	8
SUN., APRIL 3.....	16
POSTER ABSTRACTS.....	
POSTER SESSION 1.....	22
POSTER SESSION 2.....	30
FIRST AUTHOR INDEX.....	38

WELCOME TO BINGHAMTON UNIVERSITY, NEEPS 2011

NEEPS V. This is monumental. From a small group of individuals who stood behind the first ever regional evolutionary psychology society in the United States, to a well developed society reaching beyond the region creating a tight-knit and enthusiastic community. To quote a few members, NEEPS is the “best little evolutionary psychology society in the world” (Kruger, 2010 NEEPSletter), and “my tribe” (Bear, personal communication). There is a reason that I am proud to preside over such a caring, creative, and ambitious society - but to really understand, you’ve just got to attend a meeting. And where better to attend a meeting of NEEPS than at Binghamton University, the university where the first Evolutionary Studies program was born, and with keynote speakers Sarah Hrdy and Daniel Nettle?

As anyone who has ventured beyond the comfort of such a society knows, evolutionary psychology is a contentious field. Sure, in the scholarly world, the number of people willing to apply evolutionary theory to human behavior is on an upswing. Evolutionary theory is being applied in virtually all areas of study - the natural and social sciences, the humanities. The reach is far. Among top social science journals, the number of publications adopting an evolutionary perspective is on the rise, and peer-reviewed journals are emerging to answer this trend - including our own affiliate journal, the *Journal of Social, Evolutionary, and Cultural Psychology*.

Yet with these victories in the academic front come the more startling yet ubiquitous findings: among the U.S population, some 60% in any given poll still don’t believe evolution is an explanation for human origins, and even fewer accept that evolution can be used to understand human psychology. That is why NEEPS is needed. That is why the five-year mark is monumental. And that is why the two newly formed sister societies of NEEPS offer another important bridge between the camps that accept evolutionary theory and those that don’t. This year marks the second workshop of the Feminist Evolutionary Psychology Society, and the first of the Applied Evolutionary Psychology Society. Each society takes a lofty goal, integrating evolutionary theory with a feminist perspective, and bringing evolutionary theory to the forefront of policy and everyday life, respectively.

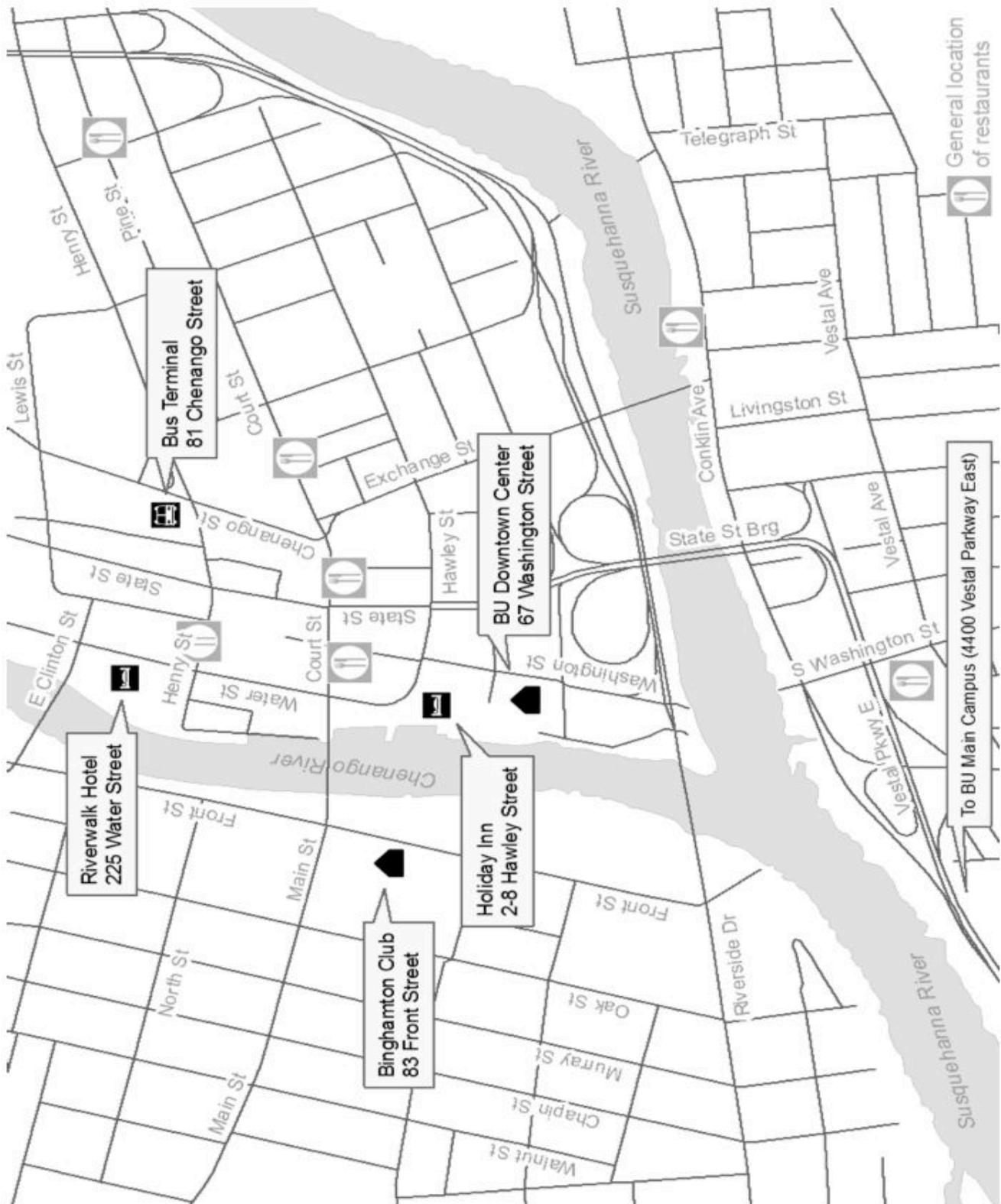
NEEPS V is monumental for a third reason, that of its rise in numbers and breadth over past conferences. This year we received over 100 submissions, so many, in fact, that we had to instate concurrent sessions for talks. While we regret that attendees can’t listen to every talk - something that has been vital to our community feeling - we are enthused that so many people are supporting this little evolutionary psychology society. This year we are represented by far beyond the Northeastern United States - Arkansas, California, Connecticut, Florida, Georgia, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Virginia, Washington D.C., and Wisconsin; and 3 other countries - Austria, Canada and Germany. I’d say the word is getting around.

In addition to these monuments of growth and evolutionary sprawl, there are a couple of new features to come from our local hosts. The first, as you’ve already seen, is a special 2011 logo to grace our conference booklet. The second is a little bittersweet - while this year will be the first year without an official team sport event, we will have live music at the banquet. And this means any interested subgroup of NEEPSers will have a bit of time to plan a coordinated dance feature for after the keynote address!

On behalf of local hosts (Justin Garcia, Chris Reiber, Ian MacDonald, Jim DeVona, Craig Morris, Leslie Heywood, Nicole Cameron, and David Sloan Wilson), our program chair Joel Wade, and NEEPS vice president Daniel Kruger, welcome to the monumental Fifth Annual Meeting of the NorthEastern Evolutionary Psychology Society at Binghamton University.

Yours,

Rosemarie Sokol Chang, NEEPS President



Here is a simplified map of the downtown Binghamton area, showing the location of key venues and areas of interest. An interactive map is also available at <http://goo.gl/maps/LuNa>.

JSEC-NEEPS SPECIAL ISSUE

For the fourth consecutive year, the Journal of Social, Evolutionary, and Cultural Psychology will publish a special issue comprised of papers presented at the NEEPS Conference. To submit your talk or poster from NEEPS 2011 for consideration in the NEEPS Proceedings, please visit the submission guidelines at <http://www.jsecjournal.com/submissions.htm> [Note that manuscripts for the NEEPS issue need not incorporate multiple disciplinary perspectives].

Conference abstracts will be automatically included in the special issue unless a paper form of the presentation is submitted and accepted in the special issue, or the author(s) opt-out of having the abstract included. To opt-out, or volunteer to review paper submissions (sorry, no student reviewers) please email Dan O'Brien at dobrien1@binghamton.edu.

The deadline for submission is July 15, 2011 for publication in the December 2011 special issue. Please submit your papers to jsecjournal@yahoo.com with the subject heading "NEEPS 2011 Submission."

EVO S JOURNAL: CALL FOR PAPERS

EvoS Journal: The Journal of the Evolutionary Studies Consortium publishes articles related to evolutionary theory in higher education, including curriculum pieces about effective assignments and activities. In addition, the journal publishes empirical, theoretical, or review papers related to evolutionary theory that are authored and reviewed by undergraduates. If you have a manuscript presenting educational research related to evolutionary theory, about the importance of evolutionary theory for teaching in your field, or a pedagogical technique, please submit your manuscript using the guidelines at (<http://evostudies.org/evos-journal/submissions/>). Please encourage your students to submit, too. If you or your students have an idea for a book review related to teaching and evolution, please email Rose Chang at (evostudies@gmail.com).

EvoS Journal is the official journal of the Evolutionary Studies Consortium. For more information about Evolutionary Studies programs and how to start one at your school, visit (<http://evostudies.org>).

NEEPS WOULD LIKE TO THANK THE FOLLOWING SPONSORS:

The Institute for Evolutionary Studies (EvoS Program)
& the Graduate Program in Biomedical Anthropology



Thank you to Hasan Ayaz for providing the Presentation Timer program. More information on Presentation Timer available at: <http://www.hasanayaz.com>.

NEEPS 2011 logo design (program cover and tote) by Abby Milberg

BRIEF TIMETABLE

DATE	TIME	EVENT	LOCATION
Friday, 4/1	9:00-11:00	Business Meeting	Room 220
	11:00-1:30	FEPS Workshop	Room 120
	1:00-3:30	AEPS Workshop	Room 220
	3:45-5:00	AEPS Paper Session	Room 220
	7:00	Keynote Address: Sarah Hrdy	Binghamton Club
Saturday, 4/2	9:00-9:30	Welcome Address	Room 220
	9:30-10:30	Paper Session 1a	Room 120
	9:30-10:30	Paper Session 1b	Room 220
	10:45-12:05	Paper Session 2a	Room 120
	10:45-12:05	Paper Session 2b	Room 220
	1:45-2:30	Past Presidential Address: Glenn Geher	Room 220
	2:45-4:25	Paper Session 3a	Room 120
	2:45-4:25	Paper Session 3b	Room 220
	4:30-5:45	Poster Session 1	Room 223
	6:00-7:00	Cocktails	Binghamton Club
	6:00	Banquet	Binghamton Club
8:15	Keynote Address: Daniel Nettle	Binghamton Club	
Sunday, 4/3	9:00-10:20	Paper Session 4a	Room 120
	9:00-10:20	Paper Session 4b	Room 220
	10:30-11:45	Poster Session 2	Room 223
	1:30-3:10	Paper Session 5a	Room 120
	1:30-3:10	Paper Session 5b	Room 220

All sessions marked "a" or "b" are concurrent.

FRIDAY APRIL 1ST

Registration, the conference, talks, and poster sessions will take place at the Binghamton University Downtown Center.

Pre-Conference Workshops

9am-11 Business Meeting, Room 220

11-1:30 Feminist Evolutionary Psychology Society Workshop, Room 120

Please join us for the annual workshop-style meeting of the Feminist Evolutionary Psychology Society (FEPS). Everyone is welcome – regardless of gender, sex, species, or disciplinary training. There is a \$10 registration fee payable on site, cash only. We will be discussing a short reading (“Evolutionary Psychology and the Search for Sex Differences by Silverstein; copies available through PsycINFO and will be provided at the meeting), and the compilation of a resource list. Attendees should be able to summarize one work (within 2-5 minutes) that they believe fits the goals of FEPS, which will be added to the resource library. Working groups will be formed, depending on interest, to explore potential research projects. More information can be found at: <http://fepsociety.org/> under Meetings.

1-3:30 Applied Evolutionary Psychology Society Workshop, Room 220

This is the first public meeting of the Applied Evolutionary Psychology Society (AEPS). All interested persons are invited to attend and participate. We will discuss the purpose for which AEPS was developed and its goals. Additionally, there will be presentations demonstrating the evolutionarily informed (EI) applications of evolutionary theory and findings to understanding and solving some human problems. A proposed edited book addressing EI solutions to human problems will be presented and discussed as well. All attendees are encouraged to provide input and feedback during the AEPS workshop. The AEPS workshop will be followed by the opening session of NEEPS 2011.

The Fifth Annual Conference of the NorthEastern Evolutionary Psychology Society

3:45pm-4:45 Applied Evolutionary Psychology Society Paper Session, Room 220

Session Chair: Rosemarie Sokol Chang

The Adaptive Translation of Evolutionary Theory and Research Findings Into Practical Solutions for Human Problems

Nicholas P. Armenti (University of Medicine and Dentistry of New Jersey; armentnp@umdnj.edu), Alice Andrews (SUNY-New Paltz), Thomas Hirschmann (University of Mannheim), Brian Mayer (University of Liverpool & Cornell University), Nando Pelusi (NYC Private Practice)

With few exceptions, most evolutionists haven't communicated effectively with policy makers and the general public. Yet, there's a selection pressure (SP) on evolutionists for sharing their ideas with others. Simultaneously, there's a countervailing SP, a resistance by many to evolutionary explanations of human problems and their solutions. Two factors appear responsible for the latter SP: 1. evolutionary explanations are still unattractive being associated with racism, oppression of the poor (Penn 2003) and atheism 2. The writing style of evolutionists' is not attractive to a broader audience beyond highly educated readers (Salmon 2010). In response to these SPs a subgroup of evolutionists has evolved with a phenotypic trait that provides an adaptive solution to these SPs. The adaptive behaviors of this subgroup are embodied in a coalition called the Applied Evolutionary Psychology Society (AEPS). Examples of exceptions where evolutionists have communicated effectively with policy makers and the general public are provided.

How to Set up Standards on the Practical Application of Evolutionary Psychology (EP) to Generate Sensible Evolutionary Informed (EI) Solutions - First Sketches for an Applied Evolutionary Psychology (AEP) Whitepaper

Thomas Hirschmann (University of Mannheim; news@thomashirschmann.de), Brian Mayer (University of Liverpool)

Despite the countless attacks on the grounds of meta-scientific doubts, evolutionary psychology has by now already proven to be a highly useful meta-theoretical framework generating fascinating new knowledge about human mind and behavior

(Ketelaar & Ellis, 2000). Therefore, to our view it is not any more our main task to prove the critics of EP wrong or to defend or advocate EP – there will be always critics and opponents arguing against one and in favor of another meta-theoretical approach. In order to advance in the field of EP we see it as our main task now to show how EP is able to bridge the gap between being “just” another meta-theoretical framework to setting up concrete hypotheses from which specific testable predictions may be derived (Ketelaar & Ellis, 2000). Our focus here resides not on the generation of new hypotheses or their rigorous testing – which are classically invoked as main tasks within scientific practice – but on the existence and quality of recommendations which accompany EP findings with regard to the possibility of their practical application.

Contraception and Other Birth Control Procedures and Their Relationship to an Adaptation Designed for Fertility Regulation (FR)

Nicholas P. Armenti (University of Medicine and Dentistry of New Jersey; armentnp@umdnj.edu)

There is a critical relationship between contraceptive-birth control methods and an evolved adaptation designed for fertility regulation (FR). This adaptation is postulated as a naturally selected, primarily female-based mechanism to solve the problem of assuring, foremost, the quality and not quantity of offspring by assessing mismatches between available/anticipated supplies of parental/environmental resources and actual/anticipated offspring who will demand those resources. Prototypical means to actualize the FR adaptation ends are infanticide and abandonment of offspring. Hrdy's (1979) seminal paper on infanticide provides the foundation for understanding the fitness benefits of what she calls “parental manipulation” infanticide. Hrdy (1991) also provides a comprehensive review of abandonment of offspring that reveals that the decision to abandon is a parental, FR means utilizing a calculation of resource availability vis a vis offspring. Daly and Wilson (1984, 2008; 1988) present an evolutionary perspective that supports Hrdy's explanation of both prototypical and other FR procedures.

5-6:30 Dinner Break

7:00 Keynote Address: Sarah Hrdy, Binghamton Club

Venue opens at 6:30; cash bar and refreshments will be available

The Origin of Emotionally Modern Humans: What it Means to Develop and Evolve as a Cooperatively Breeding Ape

New evidence has focused attention on the role of alloparents, in addition to parents, in the care and provisioning of immatures among our Pleistocene ancestors. In this lecture I examine the cognitive and emotional implications of what for an ape was a very novel form of child-rearing. **Allomother** - Male or female group member other than the mother who helps rear offspring. **Alloparent** - Group member other than a genetic parent who helps rear offspring. **Cooperative Breeder** - Sociobiological term referring to any species characterized by alloparental care and provisioning of young. Alloparental care can evolve for a variety of reasons, and "cooperative breeding" need not imply that individuals always cooperate.

SARAH BLAFFER HRDY, UNIVERSITY OF CALIFORNIA-DAVIS



Sarah Hrdy earned her doctorate in Anthropology from Harvard in 1975 and is currently professor *emerita* at the University of California-Davis. A former Guggenheim fellow, she has been elected to the California Academy of Sciences, the National Academy of Sciences and the American Academy of Arts and Sciences. She is the author or co-editor of seven books including *The Woman that Never Evolved* (1981, new edit. 1999) selected by the *New York Times* as one of the Notable Books of the Year; *Mother Nature: A history of mothers, infants and natural selection*, which won the Howells Prize for Outstanding Contribution to Biological Anthropology and was chosen by both *Publisher's Weekly* and *Library Journal* as one of the “Best Books of 1999”, and *Mothers and Others: The evolutionary origins of mutual understanding* (2009). She is also co-editor of *Infanticide: Comparative and Evolutionary Perspectives*, selected by *Choice* as one of the "Outstanding Academic Books" for 1984, and co-editor with Sue Carter and others of *Attachment and Bonding: A new Synthesis* (2005). She edited the *Foundations of Human Behavior* series from 1985-96 and continues to serve on editorial boards for two of her favorite journals, *Evolutionary Anthropology* and *Human Nature*. Website at www.citrona.com. (Photo credit Sophie Bassouls)

series from 1985-96 and continues to serve on editorial boards for two of her favorite journals, *Evolutionary Anthropology* and *Human Nature*. Website at www.citrona.com. (Photo credit Sophie Bassouls)

SATURDAY APRIL 2ND, 2011

9am-9:30 Welcome Address, Room 220

Book seller and refreshments will be in Room 228 throughout the day.

All sessions marked "a" or "b" are concurrent.

9:30-10:30 Paper Session 1a: Ingroup Bias, Room 120

Session Chair: Glenn Geher

Behavioral Immune Strength as a Predictor of Religious Conservatism and Prejudice Toward Sexual Minorities: A Mediation Model

John A. Terrizzi, Jr. (Virginia Commonwealth University; terrizzija@vcu.edu), Natalie J. Shook (Virginia Commonwealth University), Larry Ventis (College of William and Mary)

Disgust is a component of the behavioral immune system (BIS), which has evolved to promote prophylactic behavior. Outgroup members are a potential source of contamination, because they can carry harmful pathogens. Indeed, research has shown that BIS strength is related to avoidance of outgroup members. However, it has been suggested that individuals with strong BIS develop socially conservative belief systems as a means of encouraging outgroup avoidance. The purpose of the current research was to investigate whether religious conservatism mediates the relation between disgust and prejudice toward sexual minorities. Study 1 demonstrated that disgust sensitivity was positively correlated with prejudice toward homosexuals. However, this relation was mediated by religious conservatism. In Study 2, the mediational model was replicated with a more diverse sample and different measures. The current research suggests that behavioral immune strength encourages the development of socially conservative value systems which promote prejudice toward outgroups.

Collectivism, Disgust, and Values: The Relation Between the Behavioral Immune System and Culture

Russ Clay (Virginia Commonwealth University; claywr@vcu.edu), John A. Terrizzi, Jr. (Virginia Commonwealth University), Natalie J. Shook (Virginia Commonwealth University)

Recent studies have indicated that cultural differences may be related to evolved disease avoidance mechanisms. Research has shown that geographical regions that have experienced historically higher rates of disease tend to be more collectivistic. Across two correlational studies, we provide evidence which indicates that these differences can be observed at the individual level as well. More specifically, we found that individual differences in disgust sensitivity were associated with support for cultural measures of collectivism. We also found that both of these constructs were related to patterns of value endorsement, such that individuals who tended to rate values such as authority, obedience, tradition, and cleanliness as highly important tended to also report higher levels of sensitivity to disgust as well as higher levels of endorsement for measures of collectivism.

Does Sexual Promiscuity Increase Threat-Based Prejudices Toward Gay Men?

Corey L. Cook (University of Florida; clcook@ufl.edu), Catherine A. Cottrell (University of Florida)

From an evolutionary, threat-based approach to prejudice, gay men might be perceived as posing threats to others' values or health. Using this approach, we predicted that making salient the stereotype of gay men as sexually promiscuous, compared to other stereotypes of gay men, would increase discriminatory responses. Heterosexual men and women (N = 439) rated their impressions of a randomly assigned subgroup (politically active, feminine, masculine, or promiscuous) of gay or straight men and completed behavioral measures related to threats to health and values. The results supported our threat-based predictions. Sexual promiscuity did not increase levels of discriminatory tendencies reported by men, who showed high levels of negativity in all conditions. However, among the different conditions of gay targets, women only reported discriminatory responses toward sexually promiscuous gay men. Women also showed discriminatory tendencies toward sexually promiscuous straight men, supporting additional threat-based hypotheses.

9:30-10:30 Paper Session 1b: Morality and Social Behavior, Room 220*Session Chair: Kilian Garvey***Variation in the Ascription of Violence to Violent and Non-Violent Religious Words by Believers***David R. Widman (Juniata College; widman@juniata.edu)*

Evolutionary psychologists have argued that religion enhances fitness through the formation of strong in-groups that allow for greater cooperation and possibly greater out-group aggression. The purpose of the present experiment is to examine the hypothesis that religion may insulate believers from violence done in religion's name. Participants were asked to assess the violent and Christian qualities of 40 words that had religious, most with Christian, meanings with half also having violent connotations. Results suggested that violent Christian words were perceived as qualitatively different from non-violent Christian words. Self-identified Christians assessed violent Christian words as less violent and non-violent Christian words as more Christian than self-identified non-Christians. Examination of Christians, divided into high and low dogmatic groups, showed a similar pattern for the Christian rating of non-violent Christian words but not for the violence rating of Christian words. These results are consistent with the original hypothesis.

Governing the Urban Commons: Viewing Maintenance in City Neighborhoods as a Public Good*Daniel T. O'Brien (Binghamton University; dobrien1@binghamton.edu), John W. Frazier (Binghamton University), Kevin Heard (Binghamton University)*

This talk applies the concept of a "public good" to city neighborhoods. Public scenery in urban areas includes elements of both communal spaces and private residences, and disarray in this area is known as "disorder." Both residents and passers-by use disorder to judge the quality of a neighborhood and to condition their attitudes and behaviors. We test here whether individual interests (in the form of homeownership) or group efficacy (i.e. a community's ability to self-govern) is more influential to a neighborhood's level of disorder. We also take into account the density of college student renters. We find that physical disorder (i.e. deterioration) is predicted by both individual and group interests, but that social disorder is only predicted by individual investment. Further, community governance is itself best predicted by individual interests, meaning individual interests have both a direct and indirect effect on disorder levels.

The Morality of [n] and [r]: An Evolutionary Analysis of the Trolley Problem*Kilian Garvey (Bowdoin College; kgarvey@bowdoin.edu), Marissa Rosenthal (Bowdoin College)*

In this study a 3x3 version of the Trolley Problem experiment was designed to explore moral reasoning. Subjects were asked if they would pull a switch to divert a train from running over either 5, 10, or 15 people to a track where either a stranger, a cousin, or a sibling was tied. The decision to pull the switch was found to be an interaction of number of people [n] "saved" x genetic relatedness [r] of the "victim." No increase in [n] affected willingness to sacrifice the stranger [r=0], willingness to sacrifice the cousin [r=.125] increased statistically between n=5 and n=10, while willingness to sacrifice the sibling [r=.5] statistically increased between n=10 and n=15. In addition, individual differences in cognitive characteristics occurred at the same "breaking point" of [n]x[r] interaction; individuals who sacrificed their cousin at n=10 and sibling at n=15 scored higher on an IQ and Rational Thinking measure.

10:45-12:05 Paper Session 2a: Infidelity and Mate Retention, Room 120*Session Chair: Elizabeth Oberzaucher***Strategic Sex Differences in Damage Assessment and Damage Control Surrounding Infidelity***Barry X. Kühle (University of Scranton; kuhleb2@scranton.edu)*

I explored the nature of jealousy from two different, but complementary angles by asking two questions: (1) Do men and women differ in the way they interrogate unfaithful partners?, and (2) Do men and women differ in the way they attempt to mitigate their partners' jealousy-fueled interrogations? To answer these questions I conducted three studies that investigated if jealousy sparks strategic sex-differentiated damage assessment strategies in the betrayed and damage control strategies in the betrayer. Study 1 (N = 172) and Study 2 (N = 117) explored self-reported reactions to imagined infidelity scenarios. Study 3 examined actual jealousy-fueled confrontations (N = 102) in the face of real infidelities captured

on video in the syndicated reality program *Cheaters*. The results provided converging evidence that men and women strategically differ in the ways they inquire about a partner's infidelity and in the ways they respond to inquiries about their own infidelities.

The Stalker Next Door

Unnati H. Patel (Richard Stockton College of New Jersey; patelu@go.stockton.edu), Joshua Duntley (Richard Stockton College of New Jersey)

We propose that stalking is an evolved mating strategy. Most research on stalking perpetrators has been conducted on individuals convicted of stalking. We know little about the psychology of individuals who engage in forms of stalking that do not exceed the threshold for illegality or are not prosecuted. One hundred fifty participants from a college in the Northeastern United States were asked the lengths to which they have gone in order to: (1) acquire a new mate, (2) guard an existing mate to prevent defection, (3) fend off potential mate poachers, (4) poach someone else's mate, (5) strategically interfere with mating competitors, (6) and reacquire an ex-mate. Results support the hypothesis that stalking is a ubiquitous component of evolved human mating strategies.

Detection of Sexual Offenders by Facial Characteristics?

Kristen R. Wyre (Georgia Gwinnett College; kraewyre@gmail.com), Steven Platek (Georgia Gwinnett College), Austen Krill (Georgia Gwinnett College)

Forced copulation has been suggested to be a third form of sexual selection; low quality males use forced mating methods to secure reproductive opportunities. Faces of criminals representing white collar crimes (WC), non-sexual violent crimes (NSV), and sexual assault crimes (SA) were rated/ranked by 578 participants for detectable cues relating to their criminal acts and personality (e.g., most/least trustworthy, most/least frightening, and most/least sexually aggressive). Overwhelmingly, participants chose WC faces as most trustworthy, while NSV and SA faces were rated lower on trustworthiness. Similarly, SA faces were rated most frightening and most sexually aggressive than NSV and WC faces. Participants were able to distinguish between WC, NSV, and SA faces suggesting that there are detectable cues related to lower quality males.

The Case of Moulay Ismael the Bloodthirsty: Fact or Fancy?

Elisabeth Oberzaucher (University of Vienna; elisabeth.oberzaucher@univie.ac.at), Karl Grammer (University of Vienna)

Textbooks on evolutionary psychology and biology cite the case of Moulay Ismael the Bloodthirsty (1672-1727), who was supposed to have sired 888 children. It can be assumed that he had a fertile period of about 30 to 50 years. This example for male reproduction has led to a controversial discussion in evolutionary psychology. In general the discussion is characterized by assumptions about reproductive constraints, which can not be tested directly and are partly based on arbitrary figures. In a computer simulation we tested, how many copulations were necessary to sire 888 children. The algorithm consists of Wilcoxon-Weinberg model of conception and a Bayesian Network for the implementation of social and biological constraints. In the first model we used a random mating pool. In the second model we used a restricted harem pool. The results indicate that Moulay Ismael could realistically have achieved his legendary reproductive success.

10:45-12:05 Paper Session 2b: Parenting, 220

Session Chair: Dan Kruger

Fathers in Art History

John H. Hinshaw (Lebanon Valley College; hinshaw@lvc.edu)

From prehistory period through the early Renaissance, there are only a handful of images of men holding a baby. Moreover, many of the classical images that do exist are deeply troubled. Kronus eats his children; likewise Udino. Laocoon and his sons are destroyed by a sea monster. It is exceedingly rare to find female counterparts that are as dark. However, depictions of nurturing fathers become more common after the Renaissance. This talk presents summary statistics of fathers, mothers and infants drawn from standard art history textbooks. Representative images will be shown from pre-history, the classical, medieval, and modern eras. Comparisons are also made between Western and Chinese art. Different

evolutionary explanations are offered for the bipolar images such as paternal uncertainty, parenting in traditional societies, and the role of violence and war in infant deaths.

An Evolutionary Investigation into the Timing and Reasons for Introducing Mates and Parents

Maryanne L. Fisher (St. Mary University; mlfisher@smu.ca), Catherine A. Salmon (Redlands University)

Little research exists on the timing of introducing one's romantic partner to one's parents, or on the reasons one would encourage such a meeting. This moment is often critical to one's relationship; if it goes poorly, it might end the relationship. Therefore, our goal was to examine the ideal timing and reasons for such encounters. The most easily available explanations deal with social factors. For example, if parents are central figures to one's life, then one should want a potential mate to meet these important figures. This explanation is not satisfying, on its own. From an evolutionary perspective, for example, one might want to meet their mate's parents to ascertain how their mate might age, thereby ascertaining their health, attractiveness, fertility, personality, loyalty to family, and so on. Using convenience samples from California and Nova Scotia, we detail an evolutionary perspective on meeting the parents and bringing one's mate home.

The Evolutionary Demography of Reproductive Dynamics and Birth Outcomes in Technologically Advanced Populations

Daniel J. Kruger (University of Michigan; djkr2012@gmail.com), Jillian Clark (University of Michigan), Sarah Vanas (University of Michigan)

Maternal somatic investment in gestating offspring may be shaped local environmental conditions. Features indicating relatively high extrinsic mortality rates, relatively low paternal investment, and the unpredictability of future outcomes may be associated with relatively faster life history strategies, including shifts in the balance of investment between offspring quantity and quality. Anthropologists have successfully used life history models to understand reproductive outcomes in foraging populations. The co-varying factors of prematurity and low birth weight are the primary cause of neonatal mortality in developed countries. We demonstrate relationships between environmental and demographic factors relevant to life history strategies and the prevalence of prematurity and low birth weight in technologically advanced populations, controlling for known socio-economic and ethnic influences. Interventions promoting desirable birth outcomes in modern societies may be more effective if they attend to environmental influences.

Maternal Care Effects on Daughter Reproduction

Marisa J. Levy (Binghamton University; mlevy5@binghamton.edu), Amanda Borrow (Binghamton University), Liz Soehngen (Binghamton University), Matthew Lugo (Binghamton University), Nicole Cameron (Binghamton University)

In humans and rats, reproductive development is influenced by maternal care. Observation of maternal behavior was performed during the first 6 days post-partum to characterize dams on licking and grooming (LG) was performed. Female offspring were observed for onset of puberty; daily smears allowed analysis of estrus cycles. The number of pups/litter on PND 0 and upon weaning was recorded to investigate the correlation between dam characterization and litter quantity. A correlation was also investigated in some litters where length of pregnancy was determined. The findings demonstrate that Low maternal LG correlates with earlier onset of puberty and longer estrus cycles. An inverse correlation was also seen between maternal care and estrus cycle length. Furthermore, dam LG score was not correlated with length of pregnancy and number of pups per litter. The results show that maternal care influences the reproductive development of female offspring.

Maternal Care Effect on Female Reproductive Behavior

Nicole Cameron (Binghamton University)

Maternal care influences the development of the neuroendocrine system and sexual behaviors of many species. As in humans, rat female offspring of mothers that show low levels of maternal care (Low LG) reach puberty earlier than female offspring of mother that show high level of maternal care (High LG). Low LG offspring show significantly greater promiscuity, more regular cycles and greater pregnancy rates than High LG females. The endocrine system in these two groups of females differs greatly. Cross-fostering studies show that High LG conditions are sufficient to change the sexual behavior of Low female offspring but Low LG does not modify the behavior of High females. Higher testosterone exposure during fetus development may protect High offspring from low maternal care levels. These results suggest that Low LG female offspring may be more reproductively successful, and contribute to our understanding of the importance of maternal care on female reproductive functions.

12:25-1:35 Lunch Break

1:45-2:30 Past Presidential Address: Glenn Geher, SUNY-New Paltz, Room 220

The Mating Intelligence Scale: Evidence for Validity and Utility

Since the initial publication of the Mating Intelligence Scale (MIS; Geher & Kaufman, 2007), several studies have examined its validity. Here, we describe the first studies in detail (from O'Brien et al., 2010). In Study 1, 104 heterosexual participants completed the MIS along with indices of sexual behaviors. For males, mating intelligence corresponded to earlier onset of sexuality and a high number of sex partners. For females, mating intelligence corresponded to earlier onset of sexuality, but not a high number of partners. Study 2 (N = 132) examined mating intelligence as it relates to hook-ups with strangers, acquaintances, and friends. Data were sex-differentiated; males high in mating intelligence were more likely to have had each kind of hook-up; females high in mating intelligence were only more likely to have had hook-ups with acquaintances. Findings are consistent with past work on sex differences in mating strategies from an evolutionary perspective.

GLENN GEHER, PAST NEEPS PRESIDENT



Glenn Geher is Professor and Chair of Psychology as well as Director of Evolutionary Studies at the State University of New York at New Paltz. Glenn has taught several courses at the undergraduate and graduate levels – including Statistics, Social Psychology, and Evolutionary Psychology – and has recently won the New Paltz Alumni Association's Distinguished Teacher of the Year Award, along with the Chancellor's Award for Teaching Excellence from the State University of New York. First and foremost, Glenn is a teacher, and his primary goal is to educate and support his students and work to facilitate their success as they develop across their careers.

Glenn's publications generally address two broad themes – the interface of human mating and cognitive processes (mating intelligence) along with the state of Evolutionary Psychology within the landscape of academia. Among Glenn's publications are an edited book published with Nova Publishers (*Measuring Emotional Intelligence*) and an edited book with Erlbaum (*Mating Intelligence: Sex, Relationships, and the Mind's Reproductive System* – co-edited with Geoffrey Miller). Glenn is also co-author of *Mating Intelligence Unleashed* (co-written with Scott Barry Kaufman – to be released soon by Oxford University Press). Glenn also has two other books in contract (a textbook on statistics (with Oxford) and a textbook on evolutionary psychology (with Springer)).

Glenn loves evolutionary psychology - and, with this in mind, he worked with Alice Andrews, Mike Camargo, Rose Chang, Gordon Gallup, Heather Mangione, Sarah Strout, and David Sloan Wilson (among others) to launch the NorthEastern Evolutionary Psychology Society (NEEPS) in 2007. This society has grown, and Glenn thinks it's the best evolutionary psychology society in the world!

In his effort to better integrate evolution into the behavioral sciences, Glenn has collaborated with David Sloan Wilson (and several other folks at Binghamton) to (a) develop SUNY New Paltz's vibrant evolutionary studies program and (b) to expand evolutionary studies across the world of higher education. Toward this end, along with Jen Waldo of New Paltz, Glenn and David received a large National Science Foundation grant that made for great advances in the expansion of evolutionary studies in the USA and beyond. Glenn also directs the New Paltz Evolutionary Psychology lab, which includes lots of students (both undergraduates and graduate students). In his words, "these students are awesome!"

Glenn has many hobbies, including hiking, running, weightlifting, cooking, tennis, racquetball, basketball, roller hockey, ice hockey, football, fishing, canoeing, cross-country skiing, downhill skiing, caving, swimming, travel, camping, and working on his blog: Building Darwin's Bridges (at evostudies.org). He's also lead guitar player for the Hudson Valley's only all-professor punk rock band: Questionable Authorities.

Glenn lives in a house in the woods on the fringes of New Paltz, NY with his wife Kathy and their two children, Megan and Andrew – and several pets. They have a lot of fun together! www.glenngeher.com

2:45-4:25 Paper Session 3a: Vocalizations, Room 120*Session Chair: Nate Pipitone***The Effect of Menstruation on Voice: Evidence for Perceptual Vocal Differences Unique to the Menstrual Phase***R. Nathan Pipitone (SUNY-Albany; rp2497@albany.edu), Gordon G. Gallup, Jr. (SUNY-Albany)*

Research has shown that hormonal changes in women affect vocal acoustics and production. Most work has focused on ovulation rather than menstruation, although the fluctuation of hormones around menses does affect female physiology and behavior. The present studies specifically focus on voices that were recorded during menstruation and whether listeners could perceive differences in these voices compared to recordings taken at other times during the menstrual cycle. Results showed that A) males could identify voices recorded during menstruation, B) the effect was independent of the presence of an ovulatory voice, and C) menstrual voices were identified as being the most unattractive. These findings show that voice recordings taken at times of lowest fertility uniquely impact the female voice and provides evidence that perceptions of voice based on fertility do not only change under the timeframe of heightened fertility.

The Effect of Mere-Exposure on Perceived Vocal Attractiveness*Katarzyna Pisanski (McMaster University; pisanska@mcmaster.ca), David R. Feinberg (McMaster University), Jillian O'Connor (McMaster University), Diana Borak (McMaster University), Cara Tigue (McMaster University)*

The Mere-Exposure Effect assumes that people prefer familiar (pre-exposed) stimuli to novel stimuli. The purpose of the present experiment was to test, first, whether mere-exposure to voices increased their perceived attractiveness and, second, whether this effect differed as a function of a voice's baseline attractiveness. In three phases, participants were exposed to and familiarized with male and female, content-neutral vocal stimuli and, in each phase, rated the voices on attractiveness using a 7-point scale. Participants also rated the attractiveness of novel voices on first exposure. In our results, we found a preference for three-exposure (familiar) voices over single-exposure (novel) voices. Within-subject analyses, however, indicated that although initially unattractive voices increased in attractiveness with exposure (Mere-Exposure Effect), initially attractive voices decreased in attractiveness with exposure, suggesting that familiarity may not always breed attraction. These findings may reflect a phenomenon whereby individuals recalibrate their preferences as a result of repeated exposure.

Choosing Sides: Lateralized Vocal Masculinity Preferences*Diana J. Borak (McMaster University; djborak@mcmaster.ca), Jillian J.M. O'Connor (McMaster University), Cara C. Tigue (McMaster University), David R. Feinberg (McMaster University)*

Studies on lateralization provide insight into the evolution of mechanisms underlying auditory processing. Prior work has shown that men prefer high-pitched female voices and women prefer low-pitched male voices, however no studies have investigated the role of hemispheric lateralization in voice preference formation. In spoken language, prosody and emotional cues are generally processed in the right hemisphere of the brain (left ear bias); in tone languages, lexical pitch changes are generally processed in the left hemisphere (right ear bias). We investigated whether vocal masculinity preferences are laterally processed by evaluating preferences for male and female voices manipulated in pitch and presented monaurally. We identified a right ear bias for women's preferences for voices lowered in pitch in forward but not backwards speech, suggesting hemispheric lateralization aids in mate selection. Results are discussed in light of evidence from cognitive psychology, animal behavior, and evolutionary psychology.

Manipulations of Vocal and Facial Masculinity in Videos Influence Attractiveness*Jillian J.M. O'Connor (McMaster University), David R. Feinberg (McMaster University; feinberg@mcmaster.ca), Paul J. Fraccaro (McMaster University), Diana J. Borak (McMaster University), Cara C. Tigue (McMaster University)*

Vocal and facial masculinity are potential cues to underlying testosterone and influence women's mate preferences. Few studies have examined how we combine information from audio and visual modalities to form mate preferences. Prior work has revealed concordant female preferences for male facial and vocal masculinity, although no one has tested how these cues are integrated when using dynamic video stimuli. Here, we presented women with short video clips in which male faces and voices were simultaneously manipulated in masculinity. We found that women who preferred masculine faces also preferred masculine voices. Furthermore, women whose faces were rated as relatively more attractive had a

greater preference for both facial and vocal masculinity than did women whose faces were rated as less attractive. There was, however, no interaction between facial and vocal masculinity. These findings suggest that vocal and facial masculinity are assessed as backup cues to men's testosterone levels.

Voice Pitch Influences Voting Behavior

Cara C. Tigue (McMaster University; tiguecc@mcmaster.ca), Diana J. Borak (McMaster University), Jillian J.M. O'Connor (McMaster University), Charles Schandl (McMaster University), David R. Feinberg (McMaster University)

It may be adaptive for voters to recognize leadership qualities in politicians' voices. Men with lower pitched voices are found more attractive and dominant than those with higher pitched voices. Candidates with lower vocal frequencies may be more likely to win elections, but no study has manipulated voice pitch and tested its effects on voting-related perceptions. We manipulated voice pitch of recordings of U.S. presidents and asked participants to attribute personality traits to the voices and choose the voice they preferred to vote for. Lower pitch was associated with favorable qualities more often than higher pitch. Participants preferred to vote for politicians with lower pitched voices, and lower pitch was more strongly associated with physical prowess than with integrity in the wartime scenario. Sensitivity to vocal cues to physical size and strength during wartime may be adaptive, suggesting important implications for the influence of candidates' voice pitch on voting behavior.

2:45-4:25 Paper Session 3b: Mating, Room 220

Session Chair: Steven Platek

Songs as a Medium for Embedded Reproductive Messages

Dawn R. Hobbs (SUNY-Albany; db287692@albany.edu), Gordon G. Gallup, Jr. (SUNY-Albany)

Recent research shows that sensational news stories as well as popular romance novels feature a number of themes related to important topics in evolutionary psychology. In the present study we analyzed the content of song lyrics from three charts: Country, Pop, and R&B recordings. Over 94% of the songs that made it into the Top 10 in 2009 contained reproductive messages. A content analysis of these messages revealed 18 recurring reproductive themes that read like an outline for a course in evolutionary psychology. Although differences in the frequency of different themes between charts were found, further analyses showed that the best selling songs featured significantly more reproductive messages than those that failed to make it into the Top Ten. An analysis of the lyrics of opera arias and art songs also revealed evidence for many of the same reproductive messages extending back over the past 400 years.

Reading the Mind in the Eyes: Is it All in the Hips? Waist-to-Hip Ratio and 'Theory of Mind' Performance

Jennifer A. Bremser (SUNY-Albany; jenna.davis.ua@gmail.com), Melvin Philip (SUNY-Albany), Gordon G. Gallup, Jr. (SUNY-Albany)

Waist-to-hip ratio (WHR) is a good indicator of female attractiveness (Singh, 1993) and is correlated with general cognitive ability (Lassek & Gaulin, 2008), but its relationship to social intelligence has not been examined. In this study, we investigated the relationship between WHR and social intelligence, using Baron-Cohen's "Reading the Mind in the Eyes" test (RME) of theory of mind in a sample of undergraduate women, WHR was negatively correlated with performance on the RME ($r = -.449, p < .001$) suggesting that females with more accentuated hourglass figures were better at discerning the emotions depicted in pictures of people's eyes without other cues to their facial expressions. Whereas, previous studies have shown a female advantage on this and other 'theory of mind' tests, we found that a substantial proportion of the variance in performance on the RME is related to WHR among undergraduate women.

Curvaceous Female Bodies Activate Neural Reward Centers in Men: II

Steven M. Platek (Georgia Gwinnett College; splatek@gmail.com)

Last year at NEPS I presented fMRI data showing evidence that neural reward centers become active in men in response to optimally designed naked women. In this update of that research, I show a similar pattern of activation when men were asked to view and rate computerized avatars that were manipulated to accentuate various attractive features of the female form including WHR, BMI, breast size and adiposity. Interestingly, avatars do not show the same degree of overall

activation, as do real bodies, however, neural centers involved in reward processing were found to be active in response to attractive female avatar bodies. These findings extend and support the hypothesis that optimal design of the female form serves as an honest biological signal to males.

Sex Differences in Regrets Over Sexual Actions and Inactions

David A. Frederick (UCLA; enderflies1@aol.com)

The feeling of regret is a negative experience, and one many want to avoid it at all costs. But regrets serve an important adaptive purpose: they encourage us to avoid making the same mistakes over and over again. In the sexual domain, what regrets do people have? Compared to men, we hypothesized that women would be more likely to regret sexual actions (e.g., casual sex) and less likely to regret sexual inactions (e.g., passing up a casual sex opportunity) because of the higher stigma surrounding casual sex for women and because of the potentially higher reproductive costs (e.g., pregnancy). We conducted a survey in collaboration with the news organization MSNBC.com to test these hypotheses (N = 23,364). There were large sex differences in some domains (regrets over casual sex) but not others (infidelity). This research constitutes the first large-scale survey of sexual regrets using a sample from the general population.

Evolutionarily Relevant Factors Predicting Mate Settling

Haley M. Dillon (SUNY-New Paltz; haleymoss@gmail.com), Glenn Geher (SUNY-New Paltz), William S. Tooke (SUNY-Plattsburgh)

The current research examined reports of self-perceived mate value of both individuals and romantic partners' in monogamous heterosexual relationships. 19 couples reported on their own mate value in terms of both personality and physical attractiveness. We also collected data on perceptions of partners' mate value. We measured several evolutionarily-relevant traits including biological sex, Mating Intelligence, Mating Success, K-strategy, and Narcissism to examine the dispositional predictors of reported mate values, along with intra-couple discrepancies in mate value. In line with our predictions, several interesting findings emerged. Males rated their female partners as more attractive than themselves; females did not show a similar "idealization of partner" effect. Mating Intelligence and Mating Success were positively related to various indices of mate value of both self and partner. Narcissism, however, was negatively related to ratings of partner attractiveness. Implications for future research are also discussed.

4:30-5:45 Poster Session 1, Location TBA

6pm-11 Banquet, Binghamton Club

6:00 Cocktails, live music

7:00 Dinner

8:15 Keynote Address: Daniel Nettle, Binghamton Club

Venue opens at 6:00; cash bar and refreshments will be available. For those WITHOUT a ticket to the banquet, doors open at 8pm with additional seating available in the back of the banquet hall. From 9:30pm-11, the hall will stay open, with live band and cash bar for socializing.

Why do Women from Poor Backgrounds Have Their Babies When They Are Young? Perspectives from Behavioral Ecology and Evolutionary Psychology

Within developed countries, there are striking social gradients in reproductive behavior, with women in more socioeconomically deprived social groups having their babies up to a decade sooner than their more affluent peers. This causes considerable consternation amongst governments because of its perceived negative effects, but though they expend quite a bit of effort trying to stop it, they don't expend very much effort understanding it. Here, I try to consider what behavioral ecology and evolutionary psychology can do to help us understand the phenomenon. From the ultimate perspective of behavioral ecology, women should reproduce early where the costs of delaying are high and the benefits small, and I show that, indeed, most of the variation in women's age at first childbearing can be explained by the

combination of female earnings and female life expectancy. From the more proximate perspective of evolutionary psychology, we should expect there to be mechanisms sensitive to cues of prevailing environmental conditions which entrain appropriate reproductive strategies. I present results of some recent studies showing that certain types of adversity experienced in the first seven years of life set some women on the “fast track” to early parenthood. Thus, rather than thinking of poor women as “mistaken,” we must understand them as using evolved psychological mechanisms to make – by and large – ecologically appropriate decisions. This change in perspective has potentially important implications for how to think about public policy.

DANIEL NETTLE, CENTRE FOR BEHAVIOUR AND EVOLUTION



Daniel Nettle is a member of the Centre for Behaviour and Evolution at Newcastle University, which is an interdisciplinary group devoted to the study of animal and human behavior from both proximate and ultimate perspectives. He received his PhD in Anthropology from the University of London, and is the author of, amongst other things, *Evolution and Genetics for Psychology* (2009).

SUNDAY APRIL 3RD

9am-10:20 Paper Session 4a: Mating and Sexuality, Room 120

Session Chair: Sarah Strout

Women’s Salivary Testosterone and Estradiol Levels at a U.S. Sex Club

Justin R. Garcia (Binghamton University; justin.r.garcia@gmail.com), Michelle J. Escasa (University of Nevada, Las Vegas), Peter B. Gray (University of Nevada, Las Vegas)

Literature on the biological properties of female sexual arousal are limited. Despite evidence associating testosterone & estrogens with female sexual responses, few studies have investigated their changes during human sexual activity. Here we present the first findings to investigate changes in salivary testosterone (T) and estradiol (E) levels of women (n=19) at a large U.S. sex club. We report the relationships between observed T and E levels with female sexual arousal, sexual behavior, and orgasm frequency. We conducted interviews with women and employed minimally invasive sample collection by measuring peripheral T and E in saliva, at a sex club as a non-laboratory naturalistic setting. Participants averaged 33 years of age (SD +/-10) and participated between 11:00 P.M. and 5:00 A.M. We observe increases in T but not E among those engaging in sexual activity, with different sexual behaviors resulting in different magnitude shifts. Results are discussed in terms of previous research of sexual responses of both men and women.

How to Flirt Best: Sex and the Effectiveness of Flirtation Techniques

T. Joel Wade (Bucknell University; jwade@bucknell.edu), Jennifer Slemp (Bucknell University)

Four studies were implemented in order to ascertain: the flirtatious actions that men and women engage in in order to indicate romantic interest to a potential partner, and which flirtatious actions are considered most effective. Women’s flirtations that suggest sexual access were expected to be rated as most effective by men while men’s flirtations that suggest emotional commitment were expected to be rated as most effective by women. The results were consistent with the hypotheses and are discussed in terms of prior research.

How Will I Know if He Really Loves Me?: Exploring Romantic Signaling

Sarah L. Strout (Dominican College; sarah.strout@dc.edu), Maryanne L. Fisher (St. Mary's University), Rose Sokol Chang (SUNY-New Paltz), Ashley D. Hoben (Groningen University), Elisabeth Oberzaucher (University of Vienna)

Determining whether a potential mate is romantically or sexually interested, or not, is extremely important. After a review of the literature, we were unable to find much information on the detection, or emission, of romantic/sexual signals. We predict women are more sensitive to cues that indicate commitment or exclusivity, whereas men are more sensitive to cues that indicate promiscuity. We propose that this pattern would hold for both signal detection and emission. Here we present results from one location of a multi-cultural project; the data from the United States (New York) will be presented. A convenience sample of approximately 120 college students (equal proportion of women and men) were asked to complete surveys about how they detect and emit romantic signals, as well as surveys about their romantic beliefs and sociosexuality. We will discuss our results, focusing on sex differences and the mismatch between signal detection and emission.

Do Assholes Really Finish First?

Scott B. Kaufman (New York University; scott.barry.kaufman@nyu.edu)

Do jerks really finish first? Do nice guys finish last? These important questions have been debated ever since the dawn of humanity. I will review the most cutting-edge research from evolutionary psychology and social psychology to show how the answers to these questions are not simple, but require an understanding of how individual differences play out in the mating domain. Even though these issues are complex, I think we can still make some reasonable conclusions that leave room for multiple paths to mating success.

9-10:20 Paper Session 4b: Psychopathology and Physiology, Room 220

Session Chair: Melanie Shoup-Knox

Positive Benefits of Depression: Sequential Decision-making in a Healthy and Clinically Depressed Sample

Andreas Wilke (Clarkson University; awilke@clarkson.edu), Bettina von Helversen (University of Basel), Tim Johnson (Stanford University)

Previous research reports conflicting results concerning the influence of depression on cognitive task performance. While some studies find that depression enhances performance, other studies report negative or null effects. These discrepant findings appear to result from task variation, as well as the severity and treatment status of participant depression. To better understand these moderating factors, we study the performance of individuals—in a complex sequential decision task similar to the secretary problem—who are non-depressed, depressed, and recovering from a major depressive episode. We find that depressed individuals performed better than non-depressed individuals. Formal modeling of participants' decision strategies suggested that acutely depressed participants had higher thresholds for accepting options, and made better choices than either healthy participants or those recovering from depression.

Viral and Bacterial Induced Behavioral Change in Humans

Eric Shattuck (Indiana University; eshattuc@indiana.edu), Michael P. Muehlenbein (Indiana University)

Numerous studies have provided evidence consistent with the supposition that mood and behaviors are altered in hosts (including humans) during infection. Two of the primary research paradigms employed in these studies are: 1) the qualification of sickness behaviors (depressed mood, restricted social behavior, etc.) in hosts (assuming adaptive benefits to the host), and 2) the qualification of pathogen manipulation of host behaviors (assuming adaptive benefits to the pathogen). There has been little theoretical and empirical research to unify these two paradigms, particularly for human hosts. The adaptive benefits of human sickness behaviors remain equivocal, and the evidence for manipulation of human hosts by pathogens is extremely limited, with most attention having been given parasite rather than viral or bacterial manipulation of host behaviors. The present review seeks to address these shortcomings, propose new research questions regarding pathogen-associated behaviors, and provide ultimate and proximate explanations for these behaviors.

The Physiology of Brain Cooling During a Yawn

Timothy P. Corey (SUNY-Albany; tcorey89@gmail.com), Gordon G. Gallup, Jr. (SUNY-Albany), Melanie Shoup-Knox (SUNY-Albany)

Growing evidence suggests that yawning acts as a thermoregulatory mechanism by maintaining optimal brain temperature, providing an adaptive function of yawning across species. Here, we examine physiological measurements before, during, and after yawns in human subjects, focusing on mechanisms that play a role in temperature regulation. We examined changes in heart rate, lung volume, eye closure, skin conductance, ear pulse transit time, ear pulse amplitude, respiratory sinus arrhythmia, and respiratory rate during 31 spontaneous yawns from 29 subjects. Data were analyzed from 75 seconds before, to 75 seconds after each yawn, providing before, during, and after phases. During a yawn dramatic increases in heart rate, lung volume and eye muscle tension were observed, implying increased circulation and inhalation. Also, a decrease in respiration rate was observed 10 seconds following a yawn. These findings suggest that yawning may influence brain temperature by increasing the rate of blood flow to the brain, thus increasing the amount of convective cooling.

Using Parallel Assessment Methods in Humans and Chimpanzees to Explore Anxiety Spectrum Disorders Using an Evolutionary Perspective

Hope Ferdowsian (Physicians Committee for Responsible Medicine & George Washington University Medical Center; hferdowsian@pcrm.org), Debra Durham (Physicians Committee For Responsible Medicine)

In most animal studies, behavioral signs of psychopathology are described in isolation without being distilled into recognizable syndromes. When viewed in this narrow way, there is little potential for integration into the larger framework of evolutionary psychology. We adapted a clinical survey for use with chimpanzees and tested alternative diagnostic criteria for generalized anxiety disorder and related symptoms. For 20 published case studies, inter-rater agreement for generalized anxiety disorder was higher using alternative criteria compared with DSM-IV criteria. We found significant differences between wild and captive chimpanzees for the prevalence of alternative criteria for generalized anxiety disorder (8.7% vs. 58.9, $p < 0.05$). We also found differences between these populations in the percentages of behaviors seen in other anxiety disorders, such as compulsive or repetitive behaviors. Our study has implications for the ways in which anxiety disorders are viewed in humans and animals.

10:30-11:45 Poster Session 2, Location TBA

11:45-1:15 Lunch Break

1:30-3:10pm Paper Session 5a: Social Behavior, Room 120

Session Chair: Edward Sturman

Social Exchange Theory and the Evolution of Intelligence: A Test of the Savanna-IQ Interaction Hypothesis

Marissa Rosenthal (Bowdoin College; mrosenth@bowdoin.edu), Kilian Garvey (Bowdoin College)

Cosmides' Social Exchange theory research (1989) was used to test Kanazawa's (2010) Savanna IQ Interaction Hypothesis (SIQXH). 76 subjects completed 4 versions of the Wason selection task, an IQ test, and the Rational Experiential Inventory. While the Wason tasks were ostensibly written to test problem solving in four different areas (letter/number agreement, legal age/drinking alcohol, presence of tattoos/eating cassava roots, and wearing protective boots/presence of parasites), all were composed of an identical logical formula (if p then q). Consistent with previous research, the Wason tasks phrased as EEA typical problems (social permission or cheater detection) were solved at higher rates than tasks phrased as EEA atypical problems. As a test of the SIQXH, cognitive measures of individuals solving EEA atypical problems were compared with those who did not solve EEA atypical problems. Significant IQ and rational thinking differences were observed among the two groups, supporting the SIQXH.

The Territorial Foundations of Human Property

Peter DeScioli (Brandeis University; pdescioli@gmail.com), Bart Wilson (Chapman University)

Many animal species have morphological and cognitive adaptations for fighting with others to gain resources, but it remains unclear how humans make fighting decisions. Non-human animals adaptively calibrate fighting behavior to ecological variables such as resource quantity and resource distribution. Also, many species reduce fighting costs by resolving disputes based on power asymmetries or conventions. Here we show that humans apply an ownership convention in response to the problem of costly fighting. We designed a virtual environment where participants, acting as avatars, could forage and fight for electronic food items (convertible to cash). In two experimental conditions, resources were distributed uniformly or clustered in patches. In the patchy condition, we observed an ownership convention—the avatar who arrives first is more likely to win—but in the uniform condition, where costly fights are rare, the ownership convention is absent.

The Function of Mood in Reinforcing or Punishing Adaptive and Maladaptive Behavior

Edward D. Sturman (SUNY-Plattsburgh; estur001@plattsburgh.edu), Jennifer A. Caffarel (SUNY-Plattsburgh), Kaitlyn M. Sullivan (SUNY-Plattsburgh), Nicole L. Porter (SUNY-Plattsburgh), Erika R. Taylor (SUNY-Plattsburgh)

In this study we sought to examine the impact of winning or losing on mood and subsequent competitive behavior. It has been theorized that dysphoria (i.e. sad mood) reliably follows events that have negative implications for fitness. The dysphoria is experienced as painful and punishing thereby reducing the likelihood that we will engage in those (losing) behaviors in the future. The opposite is true for euphoria. It follows events that have positive implications for our fitness and is experienced as rewarding thereby increasing the likelihood of the winning behaviors. The present research sought to test this theory in an experiment. With the use of a dating game we were able to provide participants with either bogus positive or negative feedback on their performance and examine the effects on the subsequent likelihood of playing the game when left to their own devices. The study results and implications will be examined.

Religiosity and Greater Altruism than the Non-religious: Truth, Degree, and In-group Bias

Brian L. Mayer (University of Liverpool & Cornell University; blm38@cornell.edu), Susanne Shultz (University of Liverpool)

The present study examined the relationship between prosociality and religiosity via large-scale analyses of World Values Survey data. The analyses also addressed the degree to which religious prosociality extends beyond in-group bounds in the form of out-group tolerance, along with how factors such as religious group affect these relations. Additionally, a local questionnaire study was conducted exploring the religiosity-prosociality bond alongside the relationship between religiosity and Machiavellianism. The WVS analyses suggested that religiosity was strongly positively associated with prosociality but strongly negatively associated with out-group tolerance, suggesting a religious in-group prosociality bias. The questionnaire study, though failing to replicate the religiosity-prosociality link, illustrated a modest inverse relationship between religiosity and Machiavellianism. Overall these findings reinforce those of previous research concerning the religiosity-prosociality relationship, illustrate in-group limitations of this bond, and invite further research into the religiosity-Machiavellianism link.

The Biology of Female Social Bonds: Developing a Rodent Model of Oxytocin Release Under Varied Social Contexts

Liza R. Moscovice (Binghamton University; lmoscovi@binghamton.edu), Amanda P. Borrow (Binghamton University), Justin R. Garcia (Binghamton University), Nicole M. Cameron (Binghamton University)

The quality of social relationships has been linked to measures of health, well-being, and fitness across a range of mammalian species including humans. However, little is known about the biological mechanisms underlying the development and maintenance of behaviorally adaptive social bonds. The neuropeptide hormone oxytocin (OT) plays a critical role in female reproductive and maternal behavior and may also mediate female social bonding. For this study, we examined social behavior and plasma OT levels from $n = 26$ female rats pair-housed with siblings during baseline, social isolation, and reunion. OT samples were analyzed via Enzyme Immunoassay (EIA). We report whether baseline levels of peripheral OT vary with the strength of social bonds among siblings and whether social isolation and reunion cause predictable changes in peripheral OT levels. This research has broader implications for developing non-invasive endocrine measures of social bonding among female mammals.

1:30-3:10pm Paper Session 5b: Risk Taking and Competition, Room 220*Session Chair: Leslie Heywood***'SEEKING' and 'PLAYING': Affective Infrastructures, Endurance Sports, and the Cultural Logic of Transcendence***Leslie L. Heywood (Binghamton University; leslie.heywood@gmail.com)*

The work of Jaak Panksepp, a pioneer in the field of affective neuroscience (1998), examines the neuroanatomical, neurochemical mechanisms of emotional behaviors in order to examine how various affective processes are evolutionarily organized in the brain, and how those systems regulate emotional feelings and social bonds. I take Panksepp's work as a starting point for the formulation of a biocultural approach to sport, particularly endurance sports such as ultramarathoning, long-distance swimming, and Iron Man triathlons that involve a strong psychological component linked to transcending the body's limitations. What are some of the motivating factors for participation in these kinds of sport, and what links to systems in the evolved brain might such participation—often deemed “crazy,” “excessive” or “unsafe”—possibly have? I propose that linkages between Panksepp's “SEEKING” system and scholarly work on transcendence (Lintott, 2003; Nash, 2006) might help explain “the drive to overcome the weakness of the flesh” and the limits of materiality such sports invoke, as well as the cult of heroism that often develops around this kind of athlete in present cultural and historical contexts.

An Evolutionarily Valid Domain-specific Risk-taking Scale*Bonnie Curdt (Clarkson University; curdtbe@clarkson.edu), Daniel J. Kruger (University of Michigan), & Andreas Wilke (Clarkson University)*

From an evolutionary perspective, human risk-taking behaviors should be viewed in relation to evolutionarily recurrent survival and reproductive problems. In response to recent calls for domain-specific measures of risk-taking, we emphasize the need of evolutionarily valid domains. We report on a recent study designed to validate a scale of risky behaviors in domains selected from research and theory in evolutionary psychology and biology, corresponding to reoccurring challenges in the ancestral environment. Behaviors were framed in situations which people would have some chance of encountering in modern times. Extending earlier work by Wang, Kruger & Wilke (2009), we collected risk item responses from 721 subjects. Our domains of risk-taking included between-group competition, within-group competition, status, environmental challenges, food selection, food acquisition, parent-offspring conflict, kinship, mate attraction, and short-term and long-term mating strategies.

Target's Perspectives on the Use of Intrasexual Competition Strategies*Sarah C. Shaw (St. Mary's University; sarah.shaw2@gmail.com), Maryanne Fisher (St. Mary's University)*

Previously we explored one strategy that is used for intrasexual competition. That strategy was competitor derogation, and we examined how those who use this strategy are viewed by others. Although this study was informative, it only examined part of the relationship – the derogator, rather than the derogated. Moreover, we have been unable to find any research that examines how people perceive the use of competitive strategies, as the target. Thus, here we explore the views of those who are targets of intrasexual competition. We qualitatively investigate target's recollections of four strategies: self-promotion, competitor derogation, competitor manipulation, and mate manipulation. We also ask participants to state who performed the behaviour (i.e., the perpetrator). Using a community sample spanning two provinces on the east coast of Canada, we asked people to list all the ways in which they have been targets of these four strategies, and to state who was the perpetrator.

Childhood Injuries as an Early Practice of Intra-sexual Competition*Laura L. Johnsen (SUNY-New Paltz; laurajohnsen91@yahoo.com), Daniel J. Kruger (University of Michigan), Glenn Geher (SUNY-New Paltz)*

From infancy until about age 25, males die at a faster rate than females due to external causes (Kruger and Nesse 2006). The purpose of our research is to explore the factors surrounding sex differences in childhood injuries from an evolutionary perspective. We had 793 participants with 175 males and 618 females from SUNY New Paltz and the University of Michigan take a survey that asks participants to report childhood injuries and a Life history measure. Preliminary analysis of the data shows that higher-K scores for males correspond to a greater likelihood of visiting a doctor, estimated likelihood of survival

to all future age intervals (20s-90s), but were inversely related to the age at which the first reported childhood injury occurred. For females higher-K scores correlated with lower injury severity.

Women's Self-Perceptions of Health and Attractiveness are Opposing Predictors of Vocal Masculinity Preferences

David Feinberg(McMaster University) , Lisa M. Debruine(Aberdeen University), Benedict C. Jones(Aberdeen University), Anthony C. Little(Stirling University), Jillian J.M. O'Connor(McMaster University) and Cara Tigue(McMaster University)

Women's self-perceived attractiveness positively predicts preferences for facial and vocal masculinity, particularly in the context of long-term relationships. Other work, however, suggests that less healthy women prefer masculinity more than healthier women. As self-perceived health may predict one's own attractiveness, the aforementioned findings may appear to be contradictory. Therefore, we compared the effects of self-perceived attractiveness and self-perceived health on vocal masculinity preferences in long- and short-term relationship contexts. Although self-perceived health and attractiveness were positively correlated, self-rated attractiveness positively predicted long-term vocal masculinity preferences, whereas self-rated health negatively predicted short-term vocal masculinity preferences. Indeed, depending on the context, overlapping contributors to mate quality can have different effects. Such preferences are potentially adaptive as (a) masculine men may pass on inheritable immunity to infection to their offspring; and (b) masculine men may be more likely to invest in relationships and offspring of relatively attractive women.

POSTER ABSTRACTS

Poster Session #1

1. Three Studies into Sex Differences in Head Tilting Behavior

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The tilt (i.e., moving a face on a vertical plane upward or downward) of male and female faces has been shown to directly influence ratings of masculinity and femininity, respectively (Burke & Sulikowski, 2010). Although informative, Burke and Sulikowski examined manipulated faces using a small sample size. The purpose of the current study is to investigate, using three distinct types of real-world data (celebrity magazines, online dating profiles, and observed bar patrons), whether women and men tilt their heads in the expected manner when consciously attempting to appear attractive.

2. Emerging Adults' Mating Desires and Plans for Work and Family

April Bleske-Rechek (University of Wisconsin-Eau Claire; bleskeal@uwec.edu), Eric Fuerstenberg (University of Wisconsin-Eau Claire), Heather Harris (University of Wisconsin-Eau Claire), Stacy Miller (University of Wisconsin-Eau Claire), Brittany Byrne (University of Wisconsin-Eau Claire), Sarah Camp (University of Wisconsin-Eau Claire), Laura Ritchie (University of Wisconsin-Eau Claire)

Past research has documented that young men and women differ in their plans for work and family, with young women more likely to designate work plans that will "work around" their family plans (Bridges, 1989). The logic of parental investment theory explains these gender differences in plans for work and family as modern manifestations of evolved differences between males and females in preferences and priorities. Mainstream social scientists, however, have argued that gender differences in plans for work and family are a manifestation of societal pressures; under this logic, gender differences in work-family plans should be ameliorated by progression through four years of a liberal education. To test these competing ideas, we surveyed a representative sample of college freshmen and a representative sample of college seniors; and we describe their plans for work and family as a function of year in college, chosen discipline of study, and sex.

3. Assortative Friendship: Similarity between Female Same-sex Friends in Face and Body Attractiveness, Body Shape, and Mating Attitudes

April Bleske-Rechek (University of Wisconsin-Eau Claire; bleskeal@uwec.edu), Carolyn Kolb (University of Wisconsin-Eau Claire), Katherine E. Quigley (University of Wisconsin-Eau Claire), Amy E. Steffes (California State University at Fullerton)

Previous research has demonstrated that female friends are rated as similarly attractive (Bleske-Rechek & Lighthall, 2010). However, it is possible that female friends are similar more in the care they take in their appearance, or in the degree to which they display their attractiveness, than in their basic level of attractiveness. We designed a study to test that alternative explanation and to expand the existing evidence that emerging adult female friends assort on characteristics that are closely tied to mate search and acquisition: facial and body attractiveness, body shape, and mate preferences. We surveyed, photographed, and measured 86 women who came to the lab in pairs for a study of friendship. Preliminary analyses reveal that friends were weakly similar in self-perceived attractiveness, moderately similar in bra cup size, and highly similar in waist-to-hip ratio. Independent judges' ratings of friends' attractiveness levels were also positively correlated.

4. Information Foraging in a Patchy Memory Environment

Lindsay Collelo (Clarkson University; collellj@clarkson.edu), Mark Platek (Clarkson University), Bonnie Curdt (Clarkson University), Rui Mata (University of Basel), Andreas Wilke (Clarkson University)

When resources are distributed in patches animals must decide when to switch from a depleted patch. The optimal policy is given by the Marginal Value Theorem, which has successfully predicted animal behaviors, but as a mechanism it becomes problematic when each patch contains few discrete prey items. Biologists have proposed simple alternative decision mechanisms and calculated in which environments each works well. Hutchinson, Wilke & Todd (2008) and Wilke, Hutchinson, Todd & Czienskowski (2009) tested whether the decision mechanisms that evolved to direct animals when to leave a food patch also underlie human decision making in the same context, and whether humans in an internal-search

task (e.g., information in memory) use the same mechanisms as in an external-search task (e.g., physical objects). Here, we extend this research by adding a developmental perspective and assess younger and older adults' ability to master exploration-exploitation decisions in search from memory.

Early environment and life-history variables: Effects on subsequent risk-perception and behavior when going out for the night.

5. College Students' Religious Beliefs, Knowledge of Evolution, and Science Literacy: Freshman-Senior Differences and Moderating Effects of Sex and Major

Eric Fuerstenberg (University of Wisconsin-Eau Claire; fuerstea@uwec.edu), Heather Harris (University of Wisconsin-Eau Claire), Stacy Miller (University of Wisconsin-Eau Claire), Brittany Byrne (University of Wisconsin-Eau Claire), Sarah Camp (University of Wisconsin-Eau Claire), Laura Ritchie (University of Wisconsin-Eau Claire), April Bleske-Rechek (University of Wisconsin-Eau Claire)

If being in college promotes scientific literacy and critical, evidence-based thinking, then college seniors should demonstrate higher levels of scientific reasoning and scientific knowledge compared to freshmen. To test this proposal, we surveyed representative samples of freshmen and seniors at a four-year liberal arts university. Students reported their religious beliefs and attitudes toward science, and completed several scientific knowledge assessments. We describe students' religious beliefs and scientific knowledge and reasoning as a function of year, chosen major, and sex.

6. Ambient Temperature Variation and Contagious Yawning in Humans: A Challenge to the Social/Communication Hypothesis

Andrew C. Gallup (Princeton University; a.c.gallup@gmail.com), Omar T. Eldakar (University of Arizona)

Guggisberg et al. (2010) recently reviewed the evidence regarding the functionality of yawning, concluding that the origin and function of yawning is social. Gallup (2011) replied to this review, outlining a number of shortcomings to this stance, while also bringing attention to the support for the thermoregulatory hypothesis. Here the authors tested these two models in humans by measuring contagious yawning while outdoors in Arizona during two distinct temperature ranges and seasons (summer; winter). Consistent with the thermoregulatory hypothesis, the frequency and satisfaction of contagious yawning was related to the length of time spent outside in thermally challenging conditions. Thus, conflicting with the social/communication hypothesis, "yawn-induced" contagion effects appear to be mediated by underlying physiological triggers sensitive to ambient temperature variation. These data support previous research showing a connection between yawning and thermoregulation, and challenge the notion that the primitive function of yawning is social.

7. Using a Novel Stimulus to Investigate Gaze-Following in Natural Environments

Andrew C. Gallup (Princeton University; a.c.gallup@gmail.com), Simon Garnier (Princeton University), Jolyon J. Faria (Princeton University), Iain D. Couzin (Princeton University)

Eye gazes of other people can be important sources of information for pedestrians in a crowd. Recent research using sophisticated eye-tracking software has shown that people reflexively follow the gaze of others displayed on still images or brief video clips. However, the lack of appropriate gaze-following tools has limited the objective evaluation of gaze-mediated information transfer between pedestrians in natural environments. Here the authors describe an original approach to this question. An attractive stimulus is displayed at a public venue but can be seen only by pedestrians passing nearby. Therefore other pedestrians looking in the direction of the stimulus can be considered as gaze followers. A camera placed inside the stimulus and associated with face recognition software allows the detection of direct eye contacts with the stimulus. Furthermore, an overhead camera surveying the crowd is used to track shifts in head pose as a proxy of gaze direction in pedestrians.

8. The Savanna-IQ Interaction Hypothesis and Anthropocentric Climate Change: Affective and Cognitive Styles Associated with the Rejection of Global Warming

Kilian Garvey (Bowdoin College; kgarvey@bowdoin.edu), Marissa Rosenthal (Bowdoin College)

This study tested the Savanna-IQ Interaction Hypothesis (SIQXH) by evaluating individual differences in affect and cognition associated with accepting both the idea of global warming and the underlying scientific tools used to generate the theory. The SIQXH explores underlying differences in individuals who adopt and embrace evolutionarily novel as opposed to

evolutionarily familiar ideals and values. The topic of global warming was chosen for two reasons; (1) it is generated by the scientific method, an evolutionarily novel, and sometimes counter-intuitive approach to knowing the world and (2) it produces an existentially unpleasant conclusion. 88 subjects completed an intelligence test, a cognitive preference survey, an affect survey, a single yes/no question on "belief in global warming," as well as two questions on the topic of astronomy/meteorology and two questions on the topic of geology. Results found acceptance of global warming correlated with cognitive and affective characteristics consistent with the SIQXH.

9. Willing or Able: Cognitive Preference is a Stronger Prediction of Advanced Moral Reasoning Than Cognitive Ability

Kilian Garvey (Bowdoin College; kgarvey@bowdoin.edu), Marissa Rosenthal (Bowdoin College)

This study was designed to test the Savanna-IQ Interaction Hypothesis (SIQXH) (Kanazawa, 2010) by evaluating individual differences in cognitive preference and ability as predictors of moral reasoning. 74 subjects completed the Moral Foundations Questionnaire (MFQ), the Rational/Experiential Inventory (REI), and an IQ measure (WPT: Wonderlic Personnel Test). The MFQ taps two kinds of moral reasoning; objective universal harm avoidance/promotion and subjective personal self/kin protection. The REI taps two kinds of cognitive preference; analytical/rational and intuitive/experiential. The WPT/IQ measures higher level mathematical, logical, and linguistic reasoning. Consistent with the SIQXH, higher IQ predicted moral reasoning styles less dependent on EEA considerations. However, in this sample, evolutionarily novel moral reasoning was predicted more accurately by self reported evolutionarily modern rational cognitive style than by an objective measure of hypothetical-deductive reasoning, that is, subjective preference for deep thinking predicted evolutionarily novel moral reasoning better than an objective ability to think deeply.

10. How to Test Nesse and Ellsworth's (2009) Evolutionary Theory of Situation-Specific Emotional States

Amanda E. Guitar (SUNY-New Paltz; mguitar16@newpaltz.edu), Daniel J. Glass (SUNY-New Paltz), Glenn Geher (SUNY-New Paltz), Alex Saba (SUNY-New Paltz)

What purpose do emotions serve? Many scholars examining emotions from an evolutionary perspective have suggested that emotions have been shaped by natural selection to increase fitness over the span of evolution by adjusting the response of the individual to precise ecological contexts; thus, specific situations that typify recurrent themes in ancestral environments should elicit particular emotions. Nesse and Ellsworth (2009) created a model around this idea that predicts which emotions should arise in particular situations. The current proposed study will empirically test this model using the virtual simulation program 'Second Life'. Participants' "avatars" will be placed in socially or physically threatening or opportunistic situations, after which participants will rate the degree to which they experienced the emotions predicted by the model. This presentation will describe Nesse and Ellsworth's (2009) model in detail, along with specific stimuli used to examine the predictions of this model with Second Life software.

11. Self-reports of Nipple Erection in Non-sexual Situations

Marissa A. Harrison (Penn State University Harrisburg; mah52@psu.edu), Amy J. LeFevre (SUNY-Albany), Katee Jones, (Penn State University Harrisburg).

There is a surprising lack of research regarding the non-sexual conditions under which humans experience nipple erection. In the present study, 37 males and 73 females completed a questionnaire aimed at documenting such. Although nipple erection occurs in both women and men, nipple responsiveness is more closely associated with women (cf. Levin & Meston, 2006); thus, data were analyzed separately for the sexes. Women reported more frequent nipple erection in non-sexual physical situations, such as being cold, being touched non-sexually, and when experiencing "goose bumps" than did men. However, women and men did not differ with respect to reported frequency of nipple erection in emotional contexts, such as being anxious, frightened, stressed, and happy/excited. Both sexes reported that the most frequent emotional (non-sexual) cause of their nipple erection was being happy/excited, followed by anxiety, then fear. The evolutionary implications of these findings and directions for future research are discussed.

12. Do Birds of a Feather Flock Together? Perceived and Anthropometric (Dis-)Similarity in a Rural Sample of Long-Term Mates

Iris J. Holzleitner (University of Vienna; iris.holzleitner@univie.ac.at), Elisabeth Oberzaucher (University of Vienna), Lena S. Pflüger (University of Vienna), Karl Grammer (University of Vienna)

Homogamy is a well-known mating pattern in animals and also appears to apply to humans; previous evidence on facial similarity was only indirect, though. Thus, next to the question whether couples are perceived to look more similar, we investigated whether long-term mates are more similar in facial shape and whether our perception of similarity is related to shape. Using facial photographs of spouses at two different stages in their lives, we replicated previous finding on perceived similarity, and also found couples to be less dissimilar regarding the shape of their eyes and mouth. We showed that our perception of facial similarity is not only a consequence of similar attractiveness levels, but related to measurable shape. Although our findings are relatively subtle, they indicate that there is indeed positive assortative mating for facial traits. Results are discussed in the context of trade-offs in mate choice, and potential evolutionary advantages of homogamy.

13. Assessments of Sexual Orientation: The Effects of Facial Symmetry and Sexually-Dimorphic Facial Proportions

Susan M. Hughes (Albright College; shughes@alb.edu), Robert Bremme (Albright College)

This study examined how perceptions of a person's sexual orientation may be influenced by facial measures of bilateral symmetry and sexually-dimorphic facial proportions which are thought to be influenced by sex hormones. Facial pictures of individuals who self-identified their sexual orientation were measured for facial symmetry and certain facial proportions. Independent raters were asked to identify the sexual orientation of those in the pictures. Self-identified heterosexuals had facial measures that were less asymmetrical than homosexuals, however there were no differences seen for the sexually-dimorphic trait measurements between self-identified heterosexual and homosexual individuals. Furthermore, the more likely raters perceived someone to hold a heterosexual orientation, the more symmetrical that person's facial features were. This finding suggests that individuals may be using cues of symmetry to make assessments about one's sexual orientation.

14. The Third Sex: Evolutionary Insurance Policy

Adrian Israel (Georgia Gwinnett College; aisrael@ggc.edu), Steven M. Platek (Georgia Gwinnett College), Karen Krider (Georgia Gwinnett College)

Previous research has cast transgenderism as a psychological abnormality, though recent findings may support a biological explanation rather than a psychological one. With the ultimate goal of evolution being survival and procreation, transgenderism could be an evolutionary "insurance policy" for procreation under extreme environmental conditions. We hypothesize that: 1.) transgenderism is a biological adaptation to ensure human survival; 2.) that an underlying biological urge to change is often misinterpreted as a psychological disorder; and 3.) the natural expression of sex change is diminished due to relatively optimal environmental conditions for Homo Sapiens. From this perspective, gender is not fixed and unchangeable, but under certain conditions, a malleable survival strategy. Furthermore, our thesis suggests that transgenderism is an evolutionary adaptation to a problem of sexual selection: In the absence of viable reproductive partners, could the evolutionary response be to spontaneously change sex? The hypotheses are partially supported from comparative data and one case of a human male that is undergoing spontaneous (non-surgical) sex change.

15. Women's Sexuality and Mate Preferences as Revealed by "Blaze" Romances

Laura L. Johnsen (SUNY-New Paltz; laurajohnsen91@yahoo.com), Maryanne L. Fisher (St. Mary's University), Stephen M. Williams (SUNY-New Paltz), Glenn Geher (SUNY-New Paltz)

The titles of Harlequin romance series have been studied from an evolutionary perspective to provide insight into female sex-specific mating strategies (Cox & Fisher, 2009). Then, one series, Romance, was examined to explore character development for insight into women's mate preferences (Fisher & Cox, 2010). The current work will focus on a different series of Harlequin books, Blaze, which was not included in prior analyses. This series focuses more on sexual encounters, compared with the courtship process. The primary prediction is that this series will underscore features of female short-term mating moreso than the books in prior analyses, including, for instance, females initiating more sexual encounters. Such data would provide empirical documentation of the relatively complex nature of female sexuality and evidence that the idea of females as exclusively long-term strategists is simply inaccurate.

16. What's Cooking, Good Looking: Cooking and Sexual Selection

Michael J. Klausner (SUNY-Binghamton; mjklausner@gmail.com), Alyssa H. Lowenwirt (SUNY-Binghamton), Daniel T. O'Brien (SUNY-Binghamton)

This study delves into the role of cooking in modern society. From an evolutionary standpoint cooking has been selected for primarily because it is a form of external digestion. Though pre-cooked food is now mass-produced, individuals continue to cook. In turn, we hypothesized that cooking is maintained by sexual selection. We conducted a survey seeking how attractive various hobbies and skills were in both long and short-term relationships. Cooking was significantly more attractive than other forms of resource provisioning such as hunting and gardening among both males and females. Additionally, we tested for an assortative mating hypothesis (i.e. people are attracted to others that practice the same hobbies as themselves) and concluded that it was significant but did not independently explain the attractive nature of cooking in our data sets.

17. Did Indigenous Lactose Intolerance Impede Viking Colonization of North America?

Daniel J. Kruger (University of Michigan; djk2012@gmail.com)

In recent decades, archeological discoveries at L'Anse aux Meadows in northern Newfoundland have conclusively verified the Viking settlement and exploration of North America approximately five Centuries before Christopher Columbus. The Vikings apparently abandoned their colony after just a few years, citing the pervasive hostility of the indigenous population. Dietary and digestive differences may have impeded attempts to make friendly contact with the native inhabitants. The Vikings are known to have brought livestock for dairy production to their colonies, and to use the milk produced as a trade good. If the Vikings gave or traded milk to the lactose-intolerant native Amerindians, the Amerindians may have become ill and concluded that the Vikings were attempting to poison them. Although this idea may be impossible to verify directly, it illustrates a broader principle: that gene-culture co-evolution may have produced barriers or impediments to the social integration of distinct human groups.

18. Morphological Indicators of Circulating Testosterone Levels in Relation to Mathematical Ability

Jessi P. Lail (Georgia Gwinnett College; jaylailz@gmail.com), Steven M. Platek (Georgia Gwinnett College)

Waist-to-hip ratio studies have shown that an optimal WHR positively correlates with female intelligence; however, mathematical ability is usually a male-typical trait. WHR develops in females as a result of estrogen release during puberty, whereas, mathematical ability is related to prenatal levels of testosterone, measurable by the 2D:4D ratio, and supported by the Extreme Male Brain Theory of Autism. Because of the relationship between testosterone and mathematical ability and estrogen and WHR, it is possible that females who are more adept in mathematical tasks were exposed to higher levels of prenatal testosterone in utero. This would potentially lead to a less optimal WHR and a more pronounced 2D:4D ratio, possibly positively correlated with the female's mathematical ability. If this is the case, then a distinction would need to be made between WHR and intelligence to discern the particular type of intelligence that an optimal ratio predicts.

19. The Applied Evolutionary Psychology Society (AEPS)

Brian L. Mayer (University of Liverpool & Cornell University; blm38@cornell.edu), Thomas Hirschmann (University of Mannheim), Nick Armenti (University of Medicine and Dentistry of New Jersey), Nando Pelusi (NYC Private Practice; Neanderthink Column, Psychology Today)

AEPS was founded to join those of us hoping to see evolutionary theory and evolutionarily informed (EI) perspectives on human behavior incorporated more in the realm of applied psychology and in other practical areas and pursuits. Emphasizing consideration of EI ideas in the areas of parenting, education, environmental conservation, psychotherapy, medicine, exercise programs, farming, business, public policy, law enforcement, etc. are among our long-term goals. AEPS serves as a hub for such collaboration. Formed by Dr. Nick Armenti at NEEPS 2010 and beginning with a handful of NEEPS members, AEPS quickly expanded to include all those interested in enlightening and improving the world in this manner. AEPS has garnered the interest of over 100 academics and professionals working in at least eight different countries. We wish to see this collaboration bring unification to the biological, social and behavioral sciences and humanities in promoting greater application of EI principles in practice.

20. Sex Acts, the Big Five, Life History, Sociosexuality, and Mating Intelligence

Ashley N. Peterson (SUNY-New Paltz; anjpeterson@gmail.com), Glenn Geher (SUNY-New Paltz), Scott Barry Kaufman (New York University)

Previous research has found that mating intelligence, defined as the cognitive mechanisms and mental fitness indicators necessary for the employment of various mating strategies (Geher & Miller, 2008), is related to sexual behavior (O'Brien, Geher, Gallup, Garcia, & Kaufman, 2010). The current study extends research on mating intelligence examining how it is related to preferences for certain sex acts, including self-masturbation, masturbation with a partner, receiving oral sex, performing oral sex, vaginal sex, and anal sex. In addition, the Big Five of personality, sociosexuality, life history, mating intelligence, and sex of the participant were analyzed as predictors for an individual's sexual preferences. One hundred and forty four males and 463 females participated and being male, being high in mating intelligence, and having an unrestricted sociosexual orientation were predictive of increased preference for the sex acts.

21. Investigations into Acquiring a Friend's Former Mate

Anita J. Reader (St. Mary's University; anita.reader@smu.ca), Maryanne Fisher (St. Mary's University)

There has been considerable research devoted to the study of mate selection, as well as the sex differences in distress resulting from emotional or sexual infidelity. There has also been research into the importance of friendship and alliances, especially for women. However, there has been no research that unites these three topics. Thus, the goal of the present study was to explore whether women and men have different perceptions about the suitability of a close friend's ex-partner as a potential mate. More specifically, we investigate whether the nature of the potential relationship, sexual or emotional, influences an individual's consideration to pursue a mate who has been previously involved with a close friend versus an acquaintance. We also explore whether this consideration is different due to a breakup that was messy versus amicable.

22. An Emotional and Cognitive Exploration of Morality: A Test of the Savanna-IQ Interaction Hypothesis.

Marissa Rosenthal (Bowdoin College; mrosenth@bowdoin.edu), Kilian Garvey (Bowdoin College)

This study was designed to test the Savanna-IQ Interaction Hypothesis (Kanazawa, 2010) by evaluating individual differences in affect and cognition associated with Haidt and Graham's (2007) 5 "factors" of moral reasoning. It was predicted that evolutionarily familiar and evolutionarily novel affective (behavioral inhibition/harm avoidance and behavioral activation/reward oriented respectively) and cognitive (experiential and rational respectively) styles would be correlated with the evolutionarily familiar (ingroup loyalty, respect for authority, and purity/sanctity) and evolutionarily novel (harm avoidance and fairness) aspects of moral reasoning. Results supported the Savanna IQ Interaction Hypothesis in that the evolutionarily older affective and cognitive styles are highly predictive of more basic (i.e., older) kin centered moral reasoning while the more recent evolutionarily developed affective and cognitive styles are highly predictive of higher level universally applied moral reasoning.

23. An Emotional and Cognitive Exploration of Pseudoscientific Versus Scientific Reasoning: A Test of the Savanna-IQ Interaction Hypothesis.

Marissa Rosenthal (Bowdoin College; mrosenth@bowdoin.edu), Kilian Garvey (Bowdoin College)

This study tested the Savanna-IQ Interaction Hypothesis (SIQXH) (Kanazawa, 2010) by evaluating individual differences in affect and cognition associated with pseudoscientific and scientific reasoning. 84 subjects completed an intelligence test, two cognitive preference surveys and two affect surveys, as well as six questions designed to explore individual worldviews. The six questions were phrased to tap personal acceptance of an idea rather than academic understanding, i.e., "do you believe in _____?" rather than "do you understand _____?" and were organized into three subject groups [the human condition, the science of geology, or economic predictions of national financial health] of two valences [existentially comforting or existentially threatening] in an attempt to match cognitive styles purported to be closer to the savanna mindset. Results of this study supported the SIQXH in that belief in an application of science is more likely when its evolutionary frame matches one's evolutionary cognitive and affective style.

24. Sex Differences in Preference and Memory for Occupational Status

Sarah C. Shaw (St. Mary's University; sarah.shaw2@gmail.com), Nicole Conrad (St. Mary's University), Maryanne L. Fisher (St. Mary's University), Matthew Mason (St. Mary's University)

Past evolutionary research within mate acquisition has consistently demonstrated that females value traits related to resource attainment, such as ambition and industriousness (Buss & Barnes, 1986). As financial security is indicative of resource attainment, we anticipate that occupational status, a proxy for financial security, would be related to women's preferences. That is, women should prefer men with high occupational status over those with low status. Conversely, men may favour women with low occupational status as it has been suggested that as women gain financial independence they are more likely to cheat on their mate (Munsch, 2010). Using a pre-post study design, we investigate the effect that high and low occupational status has upon one's evaluation of attractiveness, and subsequent ability to recall one's face. We hypothesize women will rate males with high occupational status as more attractive and be better able to recall their faces, in comparison to low status males. Further, we predict that men will rate females with low occupational status as more attractive and be better able to recall their faces, in comparison to high status females. Data collection is still in progress.

25. Humans Internalize Environmental Cues at an Early Age, Which Influences Their Subsequent Risk-Perception and Risk-Taking Behavior.

Amanda Sherman (Clarkson University; shermaak@clarkson.edu), Chelsea Ross (Clarkson University), Lindsay Collelo (Clarkson University), Andreas Wilke (Clarkson University)

In the current study, we examined the effects of several life-history variables (such as age, sex, number and order of siblings, level of education) and early environmental factors on an individual's perception of risk in past and present environments. We designed an ecological survey to investigate which variables in an individual's living environment correlate to their current risk-taking behavior when going out for the night. We proposed that individuals who were exposed to high-risk environments in childhood would be less inclined toward risky behaviors than individuals who grew up in less dangerous areas. Participants provided three zip code locations, enabling us to compare the demographics of their past and current environments with their subjective ratings of risk/danger at each location.

26. Body Masculinity/Femininity and Quality Indicators

Kyungok Sim (SUNY-Albany; simkyungok@yahoo.com), Gordon G. Gallup, Jr. (SUNY-Albany), Daniel D. White (SUNY-Albany)

The purpose of this study was to investigate whether sexually dimorphic body masculinity/femininity predicts individual variations in traits that indicate quality [fluctuating asymmetry (FA), handgrip strength (HGS), leg-to-torso ratio (LTR) and 2D:4D] and its role in reproductive fitness. The results revealed that male body masculinity predicted low FA and high HGS, but not for either LTR or digit ratios. Female body femininity tended to have low FA, low LTR, low HGS and high 2D:4Ds, but these relationships were not significant. With regard to sexual behaviors, males with more masculinized body showed active sexual behavior, whereas such effects were not observed in females. Findings indicate that male body masculinity signals his successful development, physical strength and reproductive capacity, whereas female body femininity loosely predicted quality indicators. Our data support the evolutionary hypotheses that sexually dimorphic body masculinity/femininity is a consequence of sexual selection because of its signaling effect of quality although there was less clear patterns in females.

27. Sex Role Behavior and Body Condition for Optimal Reproductive Success

Kyungok Sim (SUNY-Albany; simkyungok@yahoo.com), Gordon G. Gallup, Jr. (SUNY-Albany), Daniel D. White (SUNY-Albany)

No empirical research has been conducted to investigate the effects of sex roles on sexual behaviors although the possible link between these variables was suggested. Thus, we examined the effect of masculine/feminine sex role behavior on sexual behavior and its possible interaction with body attractiveness [waist-to-hip ratio (WHR) for females and shoulder-to-hip ratio (SHR) for males] for variations in sexual behavior. The result revealed that high masculinity had substantial effect on sexual behavior in both sexes, whereas femininity showed no such effect. The presence of interaction effect of masculinity and body attractiveness on sexual behavior implicate that individuals may not gain an advantage from their body attractiveness in reproductive competition if they do not exhibit high masculinity and vice versa. Our data suggest that the combination of high masculinity and high degree of body attractiveness appears to be necessary for optimal reproductive success in both sexes.

28. Oh No She Didn't! Female Intrasexual Competition is Partly Mediated by Physical Characteristics That Men Find Attractive

Tia Y. Walters (Georgia Gwinnet College; twalters@ggc.edu), Steven M. Platek (Georgia Gwinnet College)

Competition is the primary force for driving sexually selected adaptations, yet women's intrasexual competition and their sexuality in general remain understudied. Our focus was to explore female intrasexual competition by reviewing the minimal amount of literature on perceptions of sex, beauty, and female competition, discuss two experiments illustrating that females recognize the optimal waist-to-hip ratio and utilize intrasexual competition based upon this understanding of this feature, and discuss a theory of female intrasexual competition based on female sexual self-perception and the desire of females to "negotiate space" and present themselves as the preferred choice to the opposite sex. These studies suggest that women recognize and employ the same phenotypic cues to female attractiveness that men do and that female relational aggression is an intrasexual competitive behavior partly mediated by the female's own phenotypic quality, relationship status, and facultatively utilized in contexts where a high quality mate is primed.

29. Evaluating Attractive Alternatives: A Simultaneous Test of the Contrast Effect and the Blinders Effect

Kevin Weber (University of Wisconsin-Eau Claire; weberkm@uwec.edu), Megan Risdal (University of Wisconsin-Eau Claire), & April Bleske-Rechek (University of Wisconsin-Eau Claire)

Our study extends previous research on two effects known as the "blinders effect" and the "contrast effect." Using a cover story about psychology in advertising, half of our participants viewed pictures of highly attractive and average attractiveness individuals, and half viewed pictures of only average attractiveness individuals. All participants rated the person in each picture for their attractiveness and (in keeping with the cover story) ability to sell a product. We predicted that committed individuals would rate attractive members of the opposite sex as less attractive than would single people (the "blinders" effect; Simpson, Gangestad, & Lerma, 1990). Second, we predicted that, among participants currently in a committed relationship, those who viewed pictures of highly attractive and average attractiveness individuals would rate their own partner as less attractive than would those who viewed only pictures of average attractiveness individuals (the "contrast" effect; Kenrick, Neuberg, Zierk, & Krones, 1994).

30. Why We Tell Stories at the Workplace: An Evolutionary Explanation

Chulguen (Charlie) Yang (Southern Connecticut State University; yangc1@southernct.edu), Stephen J. Colarelli (Central Michigan University), Robert Page (Southern Connecticut State University)

The purpose of this study is to formulate an intuitive evolutionary model of storytelling in organizations, based on the recent developments in evolutionary behavioral sciences. We performed an exploratory content analysis of the secondary source materials by comparing literatures on the multiple functions of storytelling among Kalahari hunter-gathers and contemporary office supply technicians. We suggest that storytelling at the individual, group, and communal levels was and is adaptive in both ancient and current environments for cooperation and socialization. The narrative nature of storytelling takes advantage of evolved attention, interpretation, and memory mechanisms, which further help to explain why storytelling has been retained as a communicational mechanism in our species. We propose an intuitive multi-functional and multi-level (MFML) model of storytelling and discuss some theoretical and practical implications for storytelling research in management and organization studies.

Poster Session #2**1. The Evolution of a Pedophilia Avoidance Adaptation: The Darwinian Foundation for a Sexual Attraction Mechanism Among Adult Males and Females and Its Malfunction in Relation to Prepubescent Children (PPC)***Nicholas P. Armenti (University of Medicine and Dentistry of New Jersey; armentnp@umdnj.edu)*

Pedophilia is defined as a sexual attraction to prepubescent children (PPC). The literature reveals 25% of adult males demonstrating sexual attraction to PPC (Goode 2010). Also revealed is that approximately 5% of males act out this sexual attraction with PPC (Seto 2008). From an evolutionary perspective this is a puzzle as there is no reproductive benefit for either party as PPC are infertile. Sexual penetration of sexual immatures among animals in the wild is not observed (de Waal 1990). It is proposed that natural selection (NS) designed a pedophilia avoidance adaptation that solves this puzzle. Most adult male humans avoid pedophilic behavior to prevent the decrease in reproductive fitness for both themselves and PPC. Sexual attraction to and sex with PPC is a pathology based on impairment and dysfunction of mechanisms designed by NS (Wakefield 1992; Hrdy 1979) to prevent decreased reproductive fitness. Practical applications of this proposal are suggested.

2. Wrist Width Predicts Reproductive Success and Degree of Sexual Dimorphism in Indigenous and Western Populations*Jeremy A. Atkinson (SUNY-Albany; ja391266@albany.edu), Roy N. Pipitone (SUNY-Albany), Agnieszka Sorokowska (University of Wroclaw), Piotr Sorokowski (University of Wroclaw), Mara Mberira (University of Namibia), Michelle Rowe (SUNY-Albany)*

Three studies, one conducted in an indigenous population and two in a western population examined a heretofore unappreciated marker of post pubertal-testosterone exposure; wrist width (WR). Results of these studies include correlations between WR and the gold standard of evolutionary investigations, reproductive success (indigenous pop.), as well as with sexual behaviours, ratings of facial masculinity and other sexually dimorphic features (western pop. studies). WR is an excellent marker of skeletal mass, highly sexually dimorphic, easy to assess and presumably unrelated to prenatal androgen exposure. Additionally, it is not a ratio-constructed measurement and thus it is easy to remove the effects of allometric scaling (IE height and/or size). Furthermore it is highly resistant to the effects of senescence. In sum, it is the putatively ideal candidate marker of pubertal androgen exposure. As such it should be utilized more widely as a simple-to-collect assay of within or between level of sexually dimorphism and/or phenotypic fitness.

3. A Different Kind of Fine: The Attractiveness Evolution*Paula Bishop (Georgia Gwinnett College; pbishop@ggc.edu), Steven M. Platek (Georgia Gwinnett College)*

A pilot study was conducted to investigate how female gender role would influence male ratings of attractiveness. Fifty-six men were asked to rate the attractiveness of pictures of women when paired with either traditionally feminine or masculine gender role scenarios. Participants showed a marked preference for physically attractive females when paired with the masculine scenarios. The biological significance of this has yet to be fully explored.

4. Human Memory within an Evolutionary Framework: Enhanced Retention through Reproductive Processing*Noelle M. Bourgeois (Southern New Hampshire University; noelle.m.bourgeois@gmail.com), Elise N. Pepin (Southern New Hampshire University)*

The research proposed here builds upon a series of evolutionary psychology experiments recently published by Nairne, Thompson, and Pandeirada (2007). That study demonstrated that adults have an enhanced rate of memory retention for words processed in a survival condition, as compared with conditions unrelated to survival. In the experiment proposed here, we hypothesize that individuals will have an enhanced retention rate for words processed in a reproduction-focused condition. While past research has demonstrated that threatened survival triggers enhanced recall, another evolutionary task – reproduction – has not been tested in this way. We propose a study that triggers individuals to think about reproduction and will test whether this enhances recall as survival triggers have. In this experiment, participants were asked to rate the relevance of three lists of words in reference to three variables: survival, reproduction and relocation. We hypothesize that reproduction-based processing will yield the best subsequent retention.

5. The Impact of Relational Proximity on Guilt from Infidelity

Rachael Carmen (SUNY-New Paltz; carmen42@newpaltz.edu), Maryanne L. Fisher (St. Mary's University), Glenn Geher (SUNY-New Paltz)

Many studies have been conducted using the evolutionary psychological perspective to examine people's reactions to infidelity (see Buss & Haselton, 2005). One study of particular interest is that of Fisher and colleagues (2009), who found that the degree of genetic closeness between a target and a person's romantic partner moderated his or her stress response to imagined infidelity. Participants were more likely to feel high levels of distress if the target was either genetically close or relatively close in the participant's social circle (Fisher et al., 2009). This new follow-up study aims to get at the same idea but in regards to guilt felt from cheating on a significant other rather than distress felt from a partner committing an act of infidelity. The purpose of this research is to determine whether sex differences exist in the level of guilt that is experienced from different types of infidelity.

6. Behind Closed Doors: On the Use of Loverese and Pet-Names Between Romantic Partners

Rosemarie S. Chang (SUNY-New Paltz; rischang@gmail.com), Justin R. Garcia (Binghamton University)

Loverese, or romantic baby talk, is an altered tone of voice used between romantic partners. Previous research suggests loverese is used by roughly 2/3 of men and women in committed relationships, yet little is known about the function of this vocalization, from either a proximate or ultimate standpoint, albeit it is likely one of the specialized prosodic tones adopted by emotionally intimate partners across the lifespan. We extended a previous study where we characterized loverese and examined its relationship between demographic variables, romantic love dimensions, and adult attachment style. The current study shows no gender differences in the reported usage of loverese, and participants reported using loverese significantly more in committed relationships than when dating or hooking up. Loverese is significantly correlated with passion and intimacy, as well as the attachment dimensions anxiety and avoidance (negatively related). Open-ended responses on identified reasons for using loverese are explored to inform future research.

7. Life History Shapes Social Network Structure

Benjamin Crosier (University of Florida; bencrosier@ufl.edu), Gregory Webster (University of Florida), Kira Mula (University of Florida), Keivan Zolfaghari (University of Florida)

Social networks are shaped by two complementary forces: the internal attributes of the actors in the network and the environmental qualities that the network is embedded in. Life history is a suitable theory in which to frame these environmental characteristics. The amount of resources available along with the presence or absence of threat and competition dictates reproductive and survival strategies. These strategies are bound up in social interaction and are effectively captured by social network structure. Social network analysis provides numerous metrics by which to classify structure. The measures of degree, centrality and density are of immediate importance in evolutionary psychology. It is hypothesized that those with fast life histories demonstrate decreased network metrics. The reliable influx of resources in an environment buffered from threat will foster both network growth and connection maintenance. This relationship will be demonstrated using data from college undergrads that was collected with EgoNet software package.

8. The Occurrence of Girls' and Women's Sports Across Cultures: Testing Evolutionary Hypotheses

Robert O. Deaner (Grand Valley State University; robert.deaner@gmail.com)

Numerous cross-cultural studies of sports have been conducted, but none have focused on girls and women. Therefore, for 200 cultures in the eHRAF, we coded descriptions of females' activities as: (a) games of chance, strategy, or physical skill (i.e. sport), (b) played by teams or individuals, (c) and played against females and/or males, and, (d) for sports, as being combative or non-combative. We tested the following hypotheses: (1) females will engage in team sports less often than males; (2) sports that reveal femininity will be more popular than combative sports; (3) and female sports will occur more frequently in cultures where women have greater control of resources or politics. We found support for all hypotheses, including a complete absence female vs. female team sports. This research provides the first cross-cultural summary of female sports and brings our own culture's practices (i.e. widespread female vs. female team sports) into sharper relief.

9. Sex Differences in Mate Attraction Cues in Online Dating Advertisements

Jack Demarest (Monmouth University; demarest@monmouth.edu), Jackie Briody (Monmouth University)

Sex differences in mate attraction cues were studied using online dating advertisements. Data were obtained from two online sources, compiled from large cities vs suburban towns, for three age groups (20-30, 40-50, 60-70). Two hundred and forty profiles were content analyzed. Each profile was examined for the frequency of descriptors of certain traits that were either offered or sought. These included physical appearance, financial resources, commitment and willingness to invest, and creativity. As predicted, women were more likely than men to seek cues of financial resources, while men were more likely than women to offer information about their financial resources. Men were more likely to seek cues about physical appearance, while women were more likely to offer information about their physical appearance. No differences due to age, location, or online source were found.

10. The Likelihood of Cheating: A Comparison of Reasons and Extra-pair Partners

Jack Demarest (Monmouth University; demarest@monmouth.edu), Tanya Inotaev (Monmouth University)

This study examined differences in the likelihood of cheating on a current partner for various reasons, and the likelihood of cheating with various others. The reasons for cheating included 16 items, e.g., attractiveness of a potential partner, emotional closeness and feelings of satisfaction with a potential partner, lack of emotional attachment and dissatisfaction with the current partner, several items related to the financial status of the current partner and potential partner, and a set of personality traits in the potential partner that have been found to influence attractiveness. The participant's sociosexual orientation, self esteem, and mate value (e.g., how much the participant self reported exhibiting ideal mate characteristics) were also assessed. The results will be described in two parts: (1) A rank order of the most likely reasons for cheating, and (2) an assessment of the influence of sex, sociosexual orientation, self esteem and mate value on the likelihood of cheating on a mate.

11. Semen as an Anxiolytic

Martin De Vita (SUNY-Oswego), Rebecca L. Burch (SUNY-Oswego; rburch@oswego.edu)

As an extension of data indicating that semen exposure is related to an alleviation of depressive symptoms, this study attempted to determine whether semen exposure leads to fewer anxious symptoms, questionnaires were administered undergraduates at SUNY Oswego that included several questions regarding sexual behaviors, semen exposure, and the Beck Anxiety Inventory. Frequency of unprotected vaginal or anal intercourse showed similar patterns in anxious symptoms as previous studies have shown in depressive symptoms. Those who engaged in more unprotected sex, and therefore, more semen exposure showed lower levels of Anxiety Inventory Totals. Items on the BAI were also divided into physiological and psychological symptoms. As with previous findings on PMS, certain physiological symptoms showed a greater correlation with semen exposure.

12. Women's Accuracy in Identifying Males with a History of Sexual Coercion

Mary M. Finn (SUNY-New Paltz; theotherfinn@hotmail.com)

Rape is a common human phenomenon with severe fitness consequences for females. Previous research has shown behavioral changes across the menstrual cycle that may protect against sexual coercion. This study asks, have women developed an ability to identify sexually coercive males as an anti-rape strategy? Participants will be presented with 80 photos: 20 of men convicted of first degree rape, 20 of non-sexual violent criminals, 20 of non-sexual and non-violent criminals, and 20 men without serious criminal convictions. Participants will be asked to rate on a Likert scale the likelihood that a picture shows a sexually coercive male. The accuracy of female raters will be compared to that of male raters. Female raters will be compared at different points in the menstrual cycle, with the hypothesis that ovulating females will show better accuracy at identifying rapists. Support for the hypothesis that females are capable of identifying sexually coercive males from photos could help enhance rape-prevention efforts.

13. Darwin Goes to the Movies: A Look Inside the Evolution & Cinema Course at Binghamton University

Michael Fonte (Binghamton University; mfonte1@binghamton.edu)

The Evolution & Cinema course developed at Binghamton University has proven successful in bridging the gap between the natural sciences and the humanities. Pulling from evolutionary psychology, ethology, developmental psychology, cultural anthropology, and cognitive neuroscience, this is a course that perhaps is more appropriately described as a psychology and anthropology of storytelling course that focuses on film as a storytelling vehicle. The course begins with an overview of both biological and cultural evolution, as well as evolutionary psychology. Students are then challenged to explore a series of films using an evolutionary perspective. For example, Niko Tinbergen's "Four Why's" can easily be applied to spectatorship studies. As a final assignment, each student chooses a film to analyze using an evolutionary framework. Students come away from the course with an enlightened view on how evolution can open new avenues in film studies—and the humanities in general.

14. Correlated Male Preferences for Femininity in Female Faces and Voices

Paul J. Fraccaro (McMaster University; fraccap@mcmaster.ca), David R. Feinberg (McMaster University), Lisa M. DeBruine (University of Aberdeen), Anthony C. Little (University of Stirling), Christopher D. Watkins (University of Aberdeen), Benedict C. Jones (University of Aberdeen)

Sexually dimorphic physical traits are important for mate choice and mate preference. Previous studies have observed that women's preferences for physical cues of male masculinity in different domains are correlated. These correlations demonstrate systematic, rather than arbitrary, variation in women's preferences for masculine men and are consistent with the proposal that sexually dimorphic cues in different domains reflect a common underlying aspect of male quality. Here we present evidence for a similar correlation between men's preferences for different cues of femininity in women; although men generally preferred feminized to masculinized versions of both women's faces and voices, the strength of men's preferences for feminized versions of female faces was positively and significantly correlated with the strength of their preferences for feminized versions of women's voices. This finding presents novel evidence for systematic variation in men's preferences for feminine women.

15. Birth Weight Predicts Scores on the ADHD Self-Report Scale and a Willingness to Engage in Casual Sex Among College Men

Michael J. Frederick (Hamilton College; mjfreder@hamilton.edu)

The etiology of attention-deficit hyperactivity disorder (ADHD) involves a host of genetic and environmental factors. Recent evidence suggests that fetal nutrition also plays a role. 61 college men reported their birth weight and completed a questionnaire including the ADHD Self-Report Scale, a sexual history survey, and a survey of attitudes towards casual sex. Although all birth weights were in the healthy range, men who were smaller at birth scored significantly higher on the ADHD scale ($r = -.314$; $p < 0.05$). Additionally, men who were smaller at birth reported higher levels of favorability towards casual sex ($r = -.497$; $p < 0.01$). These results are discussed in the context of life history theory. One interpretation is that men who are small at birth may offset their reduced fitness by being more sexually impulsive.

16. Does Dominance Modulate Sexually Attractive Behaviors in Men?

Daniel Gambacorta (New Mexico State University; dmg@nmsu.edu), Timothy Ketelaar (New Mexico State University)

The current experiment investigates the role of relative physical dominance on males' propensity to exhibit sexually attractive behaviors in a mating context. Specifically, we examine whether the propensity of males to display sexually attractive behaviors to potential mates will be mediated by the social costs of these displays in the same way that signaling behaviors in general are considered to be honest displays only when these signals are costly to produce. Participants are led to believe that they are competing against either a high dominance or low dominance male for the chance to go on a date with an attractive female. Participants are videotaped during an interview. Coders rate participants' behaviors on sexual attractiveness and other related variables. We hypothesize that male participants will be less likely to display costly signals of sexual attractiveness when they are led to believe that they are competing against a high dominance male.

17. What Does a Man's Voice Advertise?

Alexander K. Hill (Pennsylvania State University; akh167@psu.edu) & David Puts (Pennsylvania State University)

Humans exhibit conspicuous vocal sex differences. Mean fundamental and formant frequencies are lower in men, producing deeper pitch and timbre, respectively. The development of masculine vocal anatomy during puberty suggests the influence of sexual selection, as sexually selected traits often emerge as animals attain sexual maturity. Moreover, vocal masculinity has been associated with mating and reproductive success, and experimentally masculinized voice recordings are perceived as more attractive to women and more dominant to men. These findings imply that vocal masculinity advertizes mate quality and dominance. In the present paper, we tested these possibilities in a sample of approximately 200 men by examining relationships between vocal masculinity (measured by fundamental and formant frequencies) and components of dominance and mate quality, including salivary testosterone, body size and anatomical proportions, strength, self-reported physical aggression, fluctuating asymmetry, androgen receptor genotype, and heterozygosity at major histocompatibility genetic loci.

18. Stress and Creativity: A Hormetic Relationship to Optimize the Social Adaptation of the Phenotype?

Thomas Hirschmann (University of Mannheim; thomas.hirschmann@gmail.com)

The research presented is applying recent findings about the nature of stress on the subject of creativity, thereby proposing a socially-oriented evolutionary theory of creativity. Other than explaining creativity as a mere byproduct of sexual selection (Kaufman et. al., 2007), this research is emphasizing the general social benefit of creativity. As a main hypothesis, the presented theory assumes the human stress system to be the motivational link between individual creativity and its social cause: the need for new knowledge as a basis for social learning. This hypothesis has been tested in a creativity experiment involving different levels of stress. First results from this experiment are presented, which promise new understanding about the stress-related mechanisms underlying creativity: Rather than being generally detrimental, stress may - up to a certain level - even foster creative behavior. Also, there might be a general as well as an individual optimum level of stress for creativity.

19. The Advantages of Violent Crime Based on the Evolutionary Hunter/Gatherer Model

Adrian Israel (Georgia Gwinnett College; aisrael@ggc.edu), Steven M. Platek (Georgia Gwinnett College), Karen Krider (Georgia Gwinnett College)

Research shows that the financial and psychological effects of violent crime can cripple a society. But can there be advantages to violent crimes based on the hunter/gatherer model? Preliminary research tells us that gender population shifts show a marked impact on the rates of violent crimes. When the male population supersedes the female population, intersexual competition for viable females may cause an increase in violent crimes. The same is for the opposite is true; when the female population supersedes the male population, females become more violent with greater incidents of violent crimes being committed. Violent crimes (murder and rape) serve two evolutionary purposes; the evolutionary need to expand territories and increase the probability for procreation. 1.) A decrease in viable mates will lead to aggressive behavior in both sexes, and 2.) The need to survive and expand territories will lead to increased aggressive behavior with a direct relational correlation on violent crime rates.

20. An Evolutionary Psychological Analysis of Intuitions about the Fairness of Wealth Disparity

John A. Johnson (Pennsylvania State University; j5j@psu.edu)

Opponents have accused both sociobiology and evolutionary psychology of harboring an ulterior political agenda, namely, using research to justify the status quo. For example, documenting the prevalence of status hierarchies among social animals, with alpha males controlling a disproportionate amount of resources and power, could be seen as an endorsement of the politico-economic condition of the United States, in which relatively few humans, primarily male, possess most of the wealth and hold more positions of political power. Evolutionary psychologists typically reply to such accusations by denying that they fall prey to the naturalistic fallacy of regarding what is as what ought to be. In fact, most evolutionary psychologists espouse liberal, egalitarian attitudes. Nonetheless, the current paper, on reviewing recent evolutionary psychological thinking about economics, finds that evolutionary thinking has in fact been used to rationalize certain economic practices that generate a disparity of wealth and power in the United States.

21. Falling Asleep First After Sex Leads to Greater Partner Desires for Bonding and Affection

Daniel J. Kruger (University of Michigan; djk2012@gmail.com), Susan M. Hughes (Albright College)

There is a large literature on variance in human reproductive strategies, often focusing on differences between the sexes. However, less attention has been paid to examining psychology and behavior following acts of sex compared to sexual activities prior to full sexual intercourse. We generated an inventory to assess desires for post-coital expressions of emotional bonding and physical affection from partners while considering the relative timing of sleep onset. We collected survey data from ethnically diverse undergraduates who have had sexual intercourse. Participants' desire for more expressions of emotional bonding, physical affection, and communication from their partner was related to their partner's tendencies to fall asleep first after sex (both directly and when controlling for tendencies to fall asleep first in general). In contrast, responses to comparison items (e.g., humor) did not exhibit this effect. Men reported being more likely fall asleep first after sex than when not after sex.

22. Hawaii Data: Women's Marital Surname Change by Bride's Age and Jurisdiction of Residence

Melanie D. MacEacheron (McMaster University; mmaceacheron@gmail.com)

Unlike any other jurisdiction in Canada or the USA, the state of Hawaii requires a bride to specify whether she will take her husband's surname, retain her premarital surname, or hyphenate the two. Hawaii also requires brides to record their date of birth and current place of residence, and because it is now popular to marry at resort destinations such as Hawaii, these marriage records include many in which the newlyweds reside elsewhere, affording a unique research opportunity. Retaining or hyphenating one's premarital surname among brides marrying in Hawaii in 2006, was significantly correlated with average income of women and the average income of men in the bride's state of residence, with only that of women, however, being a marginally-significant predictor where both were used as regression predictors of retention or hyphenation. Older brides were more likely to hyphenate or retain their premarital surnames upon marriage in Hawaii in 2006.

23. The Role of Social Dominance in Male Jealousy

Anastasia Makhanova (Hendrix College; makhanovaaa@hendrix.edu), Logan D. Estill (Hendrix College), Jennifer Penner (Hendrix College)

Sexual jealousy is a psychological adaptation that likely helped men in our evolutionary past avoid cuckoldry. Based on findings that social dominance and high social status are characteristics known to provoke male jealousy (Dijkstra & Buunk, 2002), we hypothesized that men would report higher levels of jealousy in response to vignettes depicting potential rivals as risk-taking or funny (traits associated with social dominance) than to vignettes depicting rivals who were athletic or wealthy. We found that jealousy ratings did not differ across the four vignette types. Interestingly, however, when asked to report which male would be most attractive to their girlfriend and in comparison to themselves, men rated the athletic rival as significantly more attractive than the other rival descriptions. Women's ratings of the same vignettes paralleled the men's responses, indicating that male jealousy may be aimed at men who are perceived to pose the largest threat to fidelity.

24. The Ancestral Classroom: Introduction of EvoT and Ancestral Living Strategies to Courses on Evolution

Steven M. Platek (Georgia Gwinnett College; splatek@gmail.com), J. Ryan Porter (Georgia Gwinnett College), Tia Y. Walters (Georgia Gwinnett College)

Students of traditional evolutionary pedagogical approaches often leave with the notion that applications of evolutionary theory have little bearing on their lives. Here we outline an approach that proposes the implementation of a nutrition and physical fitness program, alongside classroom pedagogy, as a means of helping students learn about evolution and how it can be used to increase their own quality of life. Data were collected via a class project in which students tracked behavioral, physical, and psychological changes prior to and after introduction of a lifestyle change that was consistent with ancestral behavioral patterns (e.g., diet, fasting, exercise). Preliminary data suggests that 1) students' engagement in the ancestral lifestyle changes was a positive experience, 2) increased their knowledge of ancestral lifestyles and the relevance of evolutionary theory in their lives, and 3) increased their general well-being. Futures of this program and curricula will be discussed.

25. Expectations of Clumpy Resources Influence Predictions of Sequential Events [UPDATED SUBMISSION]

Chelsea Ross (Clarkson University; rossca@clarkson.edu), Si Xiao Chen (Clarkson University), Andreas Wilke (Clarkson University)

When predicting the next outcome in a sequence of events, people often appear to expect streaky patterns, such as that sport players can develop a "hot hand," even if the sequence is actually random. This expectation, referred to as positive recency, can be adaptive in environments characterized by resources that are clustered across space or time. But how strong is this disposition towards positive recency? If people perceive random sequences as streaky, will there be situations in which they forego a payoff because they prefer an unpredictable random environment over an exploitable but alternating pattern? Starting with an overview of recent findings from Scheibehenne, Wilke & Todd (2010), we present future directions that explore the boundary conditions of the hot hand phenomenon as a cognitive adaptation to clumped resources.

26. Jealousy Induction: Which Tactics are Most Effective?

T. Joel Wade (Bucknell University; jwade@bucknell.edu), Allison B. Weinstein (Bucknell University)

The current research was conducted to determine which of type of jealousy induction tactics are considered most effective. One hundred eighteen participants responded to a questionnaire that included jealousy induction tactics, demographic questions, and social desirability measures. Based on prior research on love acts, and jealousy induction, it was hypothesized that jealously induction tactics related to emotional commitment would be rated as most effective for making a partner jealous. The results were consistent with the hypothesis. Jealousy induction tactics involving relational distancing were rated as most effective. The findings are discussed in terms of prior research on love acts, and jealousy induction.

27. How Far South Does Darwin Reach?

Tia Y. Walters (Georgia Gwinnett College; twalters@ggc.edu), Steven M. Platek (Georgia Gwinnett College)

Georgia Gwinnett College is a small college in Gwinnett County, GA. It is surrounded by 5 or more churches within a 5 mile radius and evolution is sometimes thought of as a "dirty word." Last year, February students of the Psychology Club and Prof. Steven Platek arranged an EvoS-related event that spanned 3 days in celebration of Darwin Day. With the work of a handful of students and professors, the events went flawlessly and were attended by over 300 college students, faculty, and individuals from the surrounding community. Here we summarize one of the most popular events of our 3-day celebration: A panel discussion on "how far does Darwin reach?" Professors from History, English, Biology, and Psychology took the podium to discuss how Darwin, and evolutionary theory more broadly, has had an impact in their discipline.

28. Biting Versus Chewing: Eating Style and Social Aggression in Children

Brian Wansink (Cornell University; wansink@cornell.edu), Francesca Zampollo (London Metropolitan University), Guido Camps (Utrecht University), Mitsuru Shimizu (Cornell University)

Does biting food provoke subsequent aggressive behavior more than eating a food that only needs to be chewed? To examine this, children were served afternoon meals of chicken either on-the-bone or cut from the bone into small 2 cm pieces. Their behavior was videotaped for 10 minutes and then coded by five researchers. On the days the children had to tear the meat from the bone, they exhibited more socially aggressive behavior – more violations of instruction – than when they ate chicken that had been cut up for them. In addition, they were rated as more aggressive and less compliant. These findings suggest there may be a connection between how children eat and how they interact with each other.

29. Heavy Hitters Throwing Their Weight Around: The Weight–Aggression Link in North American Men

Gregory D. Webster (University of Florida; gdwebs@ufl.edu)

Is weight a risk factor for physical aggression? Weight was related to both direct aggression in a sample of 85 young Indian men (Archer & Thanzami, 2009) and behavioral aggression in the laboratory, but only among men who drank alcohol (DeWall, Bushman, Giancola, & Webster, 2010). Nevertheless, little research exists on the weight–aggression link in North American men. Drawing on resource holding potential and the recalibration theory and anger (Sell, Tooby, & Cosmides, 2009), we predicted that men—but not women—would show a positive weight–aggression association, and that this effect would emerge for physical aggression, but not verbal aggression, anger, hostility. In Study 1, 368 undergraduates from

provided self-reports of their weight and their responses to the Brief Aggression Questionnaire. A significant sex-by-weight interaction emerged for physical aggression but not the other three aggression domains; the weight-aggression slope was significantly positive for men but not for women.

30. Treatment of Romantic Partner Across the Menstrual Cycle

Samantha Whetstone (SUNY-Oswego), Rebecca L. Burch (SUNY-Oswego; rburch@oswego.edu)

We examined perceptions of romantic relationships, treatment of partner and violent behaviors across the menstrual cycle in undergraduate women. Only natural cycling women were surveyed, with phase determined by the forward counting method and probability of conception scores calculated. Perception of relationship strength, seriousness, attraction, and closeness did not shift across the menstrual cycle. However, treatment of that male partner did shift across the cycle. Women who were closer to ovulation (during fertile phases) were more threatening toward their partners, specifically, threatening to leave them. Women were more likely to degrade their partners, tell them they would rather spend time with other people, and actually threaten to leave them. Women were also more likely to argue about commitment to the relationship at this time. Shifts in male behavior toward their female partners across their menstrual cycle will also be discussed.

FIRST AUTHOR INDEX

<p>Nicholas P. Armenti 6, 7, 30</p> <p>Jeremy A. Atkinson.....30</p> <p>Tessa Barrett22</p> <p>Paula Bishop.....30</p> <p>April Bleske-Rechek.....22</p> <p>Diana J. Borak.....13</p> <p>Noelle M. Bourgeois.....30</p> <p>Jennifer A. Bremser.....14</p> <p>Rachael Carmen.....31</p> <p>Rosemarie S. Chang31</p> <p>Russ Clay 8</p> <p>Lindsay Collelo.....22</p> <p>Corey L. Cook..... 8</p> <p>Timothy P. Corey.....18</p> <p>Benjamin Crosier.....31</p> <p>Bonnie Curdt.....20</p> <p>Robert O. Deaner.....31</p> <p>Jack Demarest32</p> <p>Peter DeScioli.....19</p> <p>Martin De Vita.....32</p> <p>Haley M. Dillon15</p> <p>David R. Feinberg.....13</p> <p>Hope Ferdowsian.....18</p> <p>Mary M. Finn.....32</p> <p>Maryanne L. Fisher11</p> <p>Michael Fonte.....33</p> <p>Paul J. Fraccaro.....33</p> <p>David A. Frederick.....15</p> <p>Michael J. Frederick33</p> <p>Eric Fuerstenberg.....23</p> <p>Andrew C. Gallup.....23</p> <p>Daniel Gambacorta.....33</p> <p>Justin R. Garcia16</p> <p>Kilian Garvey 9, 23, 24</p> <p>Glenn Geher.....12</p> <p>Amanda E. Guitar24</p> <p>Marissa A. Harrison24</p> <p>Alexander K. Hill.....34</p> <p>John H. Hinshaw10</p> <p>Thomas Hirschmann 6, 34</p> <p>Leslie L. Heywood20</p> <p>Dawn R. Hobbs14</p> <p>Iris J. Holzleitner.....25</p> <p>Sarah B. Hrdy..... 7</p>	<p>Susan M. Hughes 25</p> <p>Adrian Israel25, 34</p> <p>Laura L. Johnsen.....20, 25</p> <p>John A. Johnson..... 34</p> <p>Scott B. Kaufman 17</p> <p>Michael J. Klausner 26</p> <p>Daniel J. Kruger..... 11, 26, 35</p> <p>Barry X. Kuhle 9</p> <p>Jessi P. Lail 26</p> <p>Marisa J. Levy 11</p> <p>Melanie D. MacEacheron 35</p> <p>Anastasia Makhanova..... 35</p> <p>Brian L. Mayer19, 26</p> <p>Liza R. Moscovice..... 19</p> <p>Daniel Nettle..... 15</p> <p>Elisabeth Oberzaucher 10</p> <p>Daniel T. O'Brien 9</p> <p>Unnati H. Patel..... 10</p> <p>Ashley N. Peterson 27</p> <p>R. Nathan Pipitone..... 13</p> <p>Katarzyna Pisanski 13</p> <p>Steven M. Platek14, 35</p> <p>Anita J. Reader..... 27</p> <p>Marissa Rosenthal18, 27</p> <p>Chelsea Ross 36</p> <p>Eric Shattuck..... 17</p> <p>Sarah C. Shaw20, 28</p> <p>Amanda Sherman 28</p> <p>Kyungok Sim 28</p> <p>Sarah L. Strout 17</p> <p>Edward D. Sturman 19</p> <p>John A. Terrizzi..... 8</p> <p>Cara C. Tighe..... 14</p> <p>T. Joel Wade16, 36</p> <p>Tia Y. Walters.....29, 36</p> <p>Brian Wansink..... 36</p> <p>Kevin Weber..... 29</p> <p>Gregory D. Webster 36</p> <p>Samantha Whetstone 37</p> <p>David R. Widman 9</p> <p>Andreas Wilke..... 17</p> <p>Kristen R. Wyre 10</p> <p>Chulguen (Charlie) Yang..... 29</p>
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