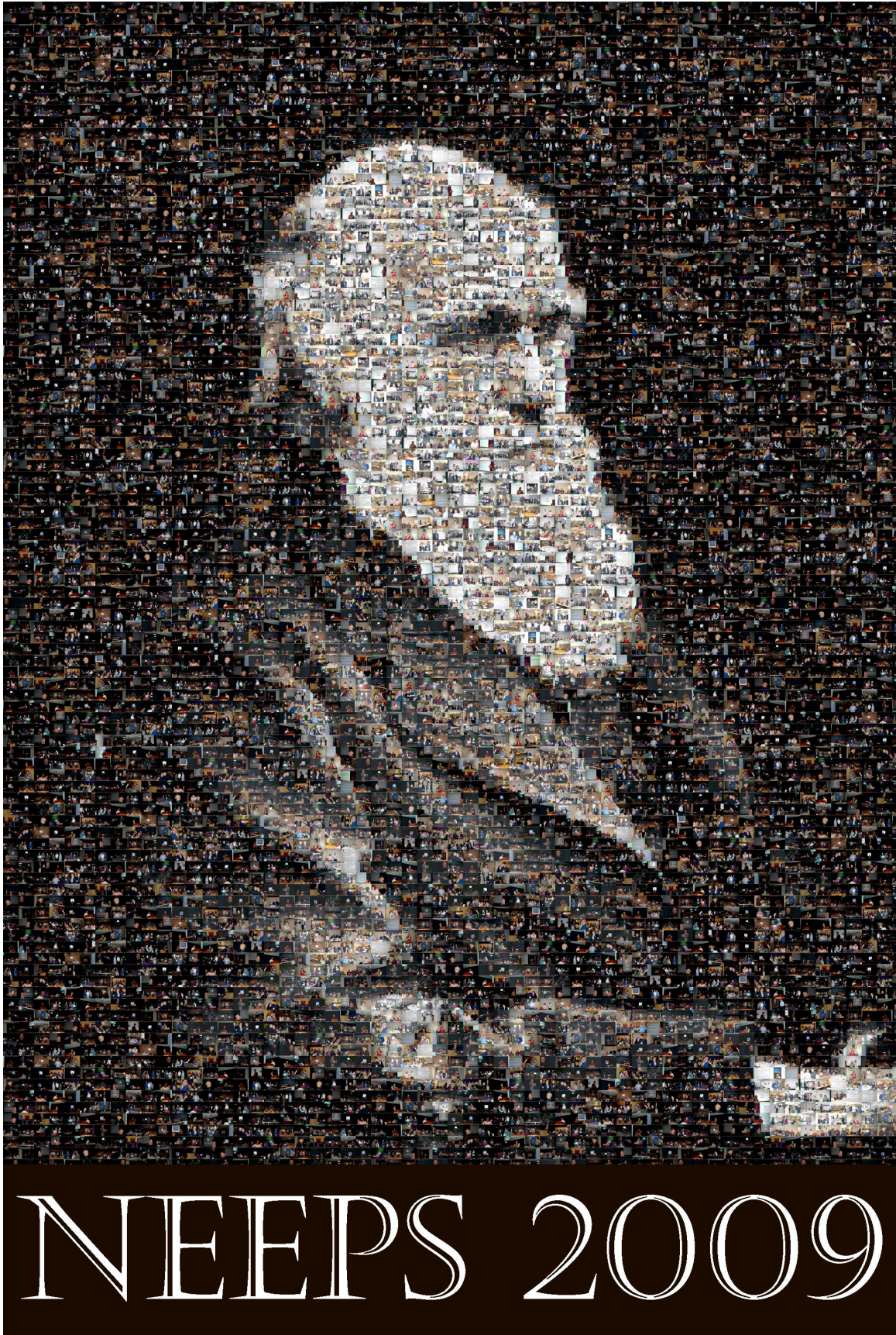


Northeastern Evolutionary Psychology Society

3rd Annual Conference





*This mosaic of Darwin was created using pictures from the 2008 and 2009 NEEPS Conferences

Welcome to NEEPS 2009!

Colleagues, collaborators, friends, and evolutionary psychologists of all shapes and sizes – we're back! Welcome to NEEPS 09 – NEEPS in Oz! With globally renowned keynote speakers, Helen Fisher and Satoshi Kanazawa, more than two full days of oral presentations to be given by some of the keenest minds in the field of evolutionary psychology, a student session to discuss how evolutionary psychology fits into the broader world of academe, a poster session that promises to be awesome, a barbecue, a banquet, and more, NEEPS 09 promises to be bigger, better, and more fun than ever!

The mission of NEEPS is to provide a community for scholars whose work bears on the application of evolutionary principles to behavior. In so doing, NEEPS is designed to foster friendly and productive scholarly collaborations for those of us who see the profound importance of evolution in understanding all aspects of who we are. We are pleased to report that by all accounts, we continue to be successful in this mission. NEEPS has provided a supportive intellectual forum from near and far. NEEPSers come from Albany, Binghamton, California, Florida, Halifax, Montreal, London, Michigan, New Haven, New Jersey, New Paltz, Oswego, Pennsylvania, South Korea – and beyond!

As our good friend Gordon Bear reminds us from time to time, NEEPS is a tribe. We recognize each other at other conferences – we know each other's work – we know each other's nicknames. And, perhaps most importantly, we *care about* one another. NEEPSers help others in publishing. NEEPSers support the efforts of other NEEPSers to obtain tenure and promotion. NEEPSers nominate NEEPSers for important, prestigious, and warranted awards acknowledging academic accomplishments. Not only is NEEPS a tribe, but it's a particularly supportive and well-functioning tribe!

Last year was the first year that a special issue of JSEC, the affiliate journal of NEEPS, published several peer-reviewed articles that comprise the Proceedings of the NEEPS Conference. What a great scholarly collection! These publications represent some of the most important and cutting-edge ideas in the behavioral sciences. Rosemarie (Sokol) Chang, Dan Kruger, and Sarah Strout deserve special recognition for their work on JSEC – whose success shines directly onto NEEPS.

On all fronts, the tribe of NEEPS allows evolutionists like you to do your best work – knowing full well that you have a stellar group of academics behind you. Stand strong and continue the outstanding work that has typified NEEPS since April of 2007.

On behalf of the NEEPS executive committee, welcome to Oswego and to the Third Annual Meeting of the NorthEastern Evolutionary Psychology Society!

Sincerely,

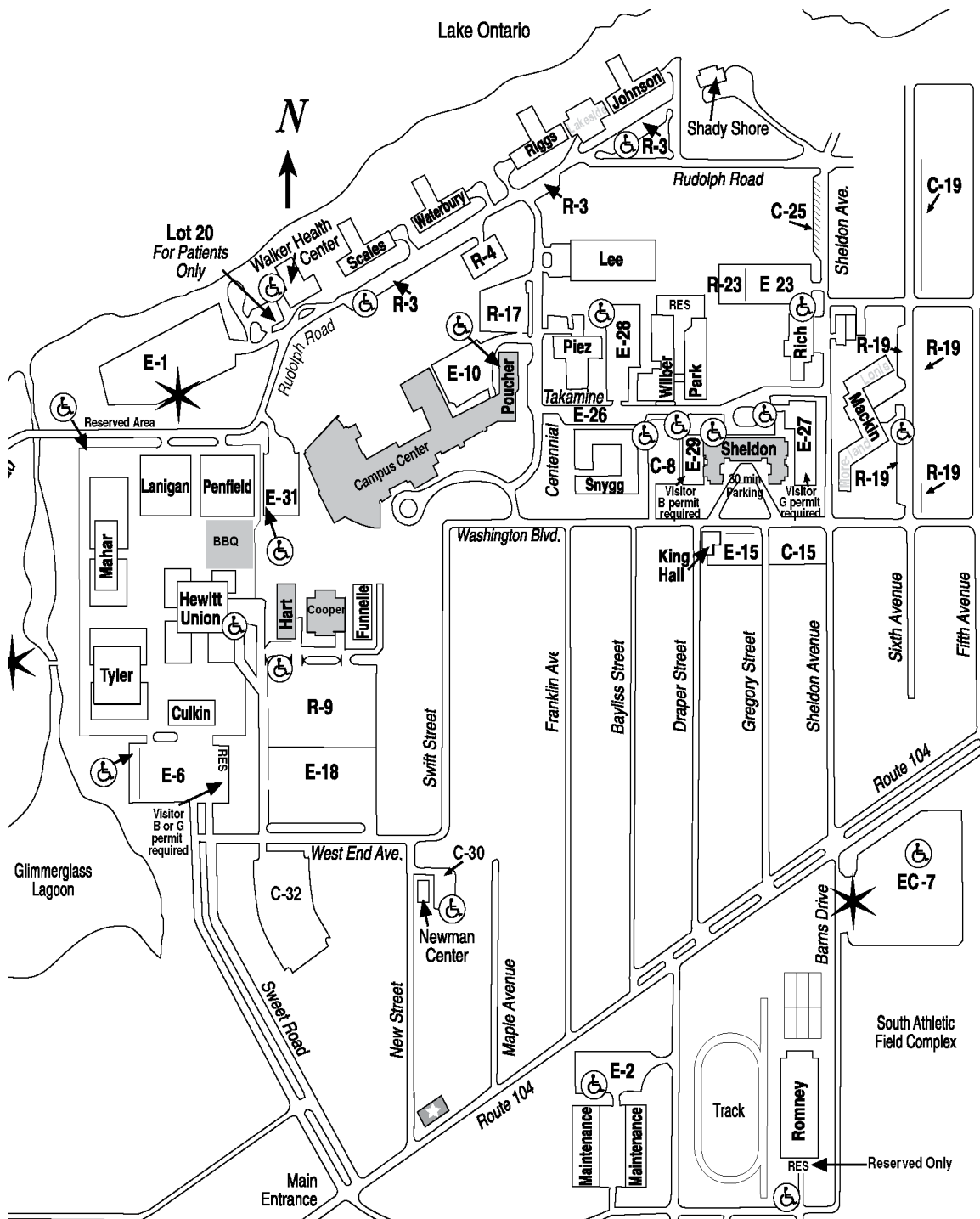
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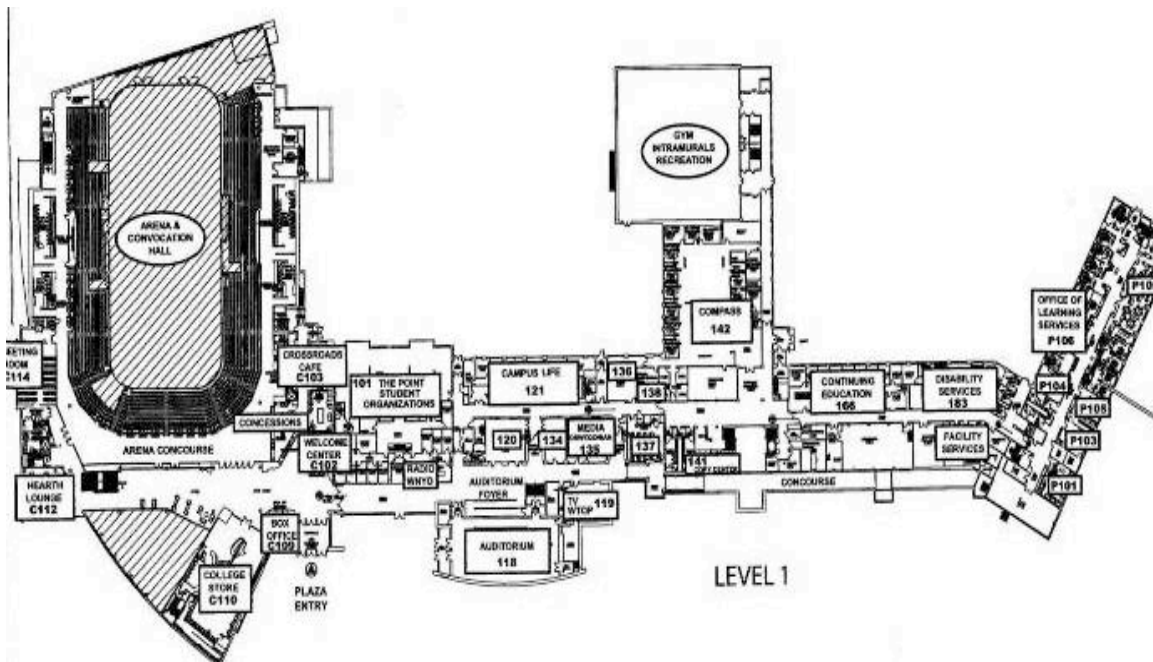
Daniel Kruger, NEEPS 2009 Program Chair

Sarah Strout, NEEPS Treasurer



Campus Map

Campus Center Map



All talks: C118
Business meeting: C114
Refreshments: C120
ATMs: Outside C110
Reception: Below C110



SPECIAL NEEPS RATE:

15% off 750ml Bottles and 10% off any other size bottle

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When ordering be sure to give your name, your hotel and room number and use the password "NEEPS". Announcements regarding deliveries will be made throughout the conference.

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Map of Oswego



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Phone number prefix: (315) – xxx – xxxx

TRANSPORTATION**TAXI(S)**

B's Taxi Service, 55 E. 2nd St. 342-2400
 Ontario Taxi, 3062 State Route 48 343-5200

BUSES

Centro, 512A East Seneca St. 342-4400

BANKS

Key Bank, Oswego Plaza 342-2434
 Chase Bank, 204 W. 1st St. 343-9650
 HSBC, 100 E. 1st St. 343-1410
 Pathfinder, 214 W. 1st St. 343-0057
 Oswego County National, 44 E. Bridge St. 343-4100

CLEANERS

Hillside Cleaners, 5 Fourth Ave. 343-5960
 Karpinski's, 96 W. 2nd St. 342-4580

FLORISTS

Cali's Carriage House, 116 W. Bridge St. 342-0206
 Maida's Floral Shop, 133 W Utica St 343-1655
 Flowers by Mr. John, 83 E. Bridge St. 343-2013

SERVICE STATIONS

Monroe Muffler and Brake, 169 E Bridge St 343-0513
 Torbitt's Service Center Inc., 5837 Rte. 104 342-2203
 Vashaw's Collision, 270 W. 2nd St. 343-7406

HAIR SALONS

Cutting Crew, Oswego Plaza Rte 104 E. 342-0721
 Dominic & Mary's, 142 E. Bridge St. 343-3220
 JC Penny Styling Salon, Oswego Plaza 343-8257

HOSPITALS

Oswego Hospital, 110 W. 6th St. 349-5511
 Emergency Room 349-5522 Mental
 Health (Oswego County) 343-8162

PHARMACIES

Rite-Aid, Midtown Plaza 342-5037
 Wal-Mart Pharmacy, Rte. 104 East 342-2212
 Kinney Drugs Inc. 174 W. Bridge St. 342-6800

MOVIE THEATERS

Oswego Theatre, 138 W. 2nd St. 343-6361
 Midway Drive-In, West River Rd., Rte. 48 343-0211

MUSEUMS/ATTRACTIONS

Energy Center (Niagara Mohawk) E. Lake 342-4117
 Fort Ontario, E. 9th St. 343-4711
 Oswego County Historical Society, 135 E. 3rd St. 343-1342

FOOD

Azteca Mexican Grill, 53 E. Bridge St. 341-7045
 Bev's (ice cream), Washington Blvd. 343-0839
 Burger King, Rte. 104 East 342-0357
 Canale's Italian Ristorante, 156 W. Utica St. 343-3540
 Captain's Lounge, 27 E. First St. 342-0000
Fajita Grill 244 W Seneca St 326-0224
 Global Buffet 189 W. 1st St. 343-5388
 King Arthur's 7th W. Bridge St. 343-1300
 Lombardo's Bridie Manor 1830 E. 1st St. 342-1830
 Madeleine's Bistro, 118A W. 2nd St. 343-9910
(Dinner Only)
 McDonald's, West Bridge St. 342-1049
 Rte. 104 East 343-6607
 NY Deli, 53 West Bridge St. 343-2982
 Pizza Hut, Rte. 104 West 342-4419
 Ponderosa, East 14th St. 343-3009
 Rudy's Stand, Washington Blvd 343-2671
 Subway, Oswego Plaza 342-6111
 Rte. 104 West 342-9111
 Vona's Restaurant, W. 10th & Utica St. 343-8710
 Wendy's, Rte. 104 East 342-4177

Restaurants That Deliver

Domino's Pizza, W. 7th & Utica St. 343-7250
 Food Chow City, 45 E. Bridge St. 343-3202
 KQ Restaurant, Ames Plaza 342-2727
 NY Pizzeria, 31 W. Bridge St. 342-4255
 Oswego Sub Shop, 106 W. Bridge St. 343-1233

BARS

The **Raven** Pub 39 West Bridge Street 343-1968
 Cheap Seats Sports Bar 6 Hillside Ave 342-6770
 Greenes Ale House 104 W Bridge St 343-1209
 GS Steamers Bar & Grill 70 East First Street 342-0000

LIQUOR STORES

Paura's Liquor Store, 50 W Bridge St 343-7722
 Andrew's Wine Cellar 193 W 1st St # 7 342-5850
 Bame's Wine & Liquor 8 W Utica St 343-3114

COFFEE

Lake Effect Café in Penfield Library
 Hours: Mon.-Thurs. 8:30 a.m.-4 p.m., Friday 8:30 a.m.-2:30 p.m.
 Coffee Connection, 148 Water St 342-6916
 Dunkin' Donuts, 255 W Seneca St # 3 342-3237
 Dunkin' Donuts, 105 State Route 104 343-3010
 Canal Landing Coffee, 191 W 1st St 326-0121
 Oswego Tea Company 157 E 1st St # 5 343-0439

It is suggested that you check with the specific establishment for hours and/or prices.

****If you need further assistance, please see a staff member.***



Staying in Hart Hall

Rooms are provided with bed linens and towels. If you need more materials, contact the **Hart Hall front desk at 315-312-4200**.

Hart Hall guests can use the laundry facilities in the basement of the building. Washers and dryers are free. Washers are high efficiency washers and use liquid detergent only.

Hart Hall guests can also use the billiard, ping pong, and foosball tables on the first floor. Gaming equipment can be borrowed from the front desk.

Information on restaurants that deliver food is also available in the Hart Hall lobby.

Deliveries from Andrew's wine will be made to the Hart Hall front desk.

Televisions are not available in individual rooms. Televisions are located in lounges on each floor.

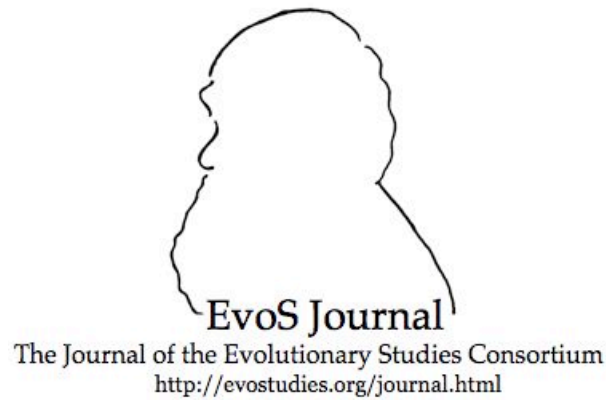
Kitchen facilities are also available on each floor.

Parking

All conference attendees are welcome to park their vehicles in the large lot south of Hart Hall. Ticketing in that lot will be suspended July 9th through the 12th.

Attendees may **not** park in the diagonal parking spaces adjacent to Hart Hall.

Phone number for University Police 315-312- 5555



Calling **undergraduates** who have written papers using an evolutionary perspective and **professionals** who have manuscripts addressing the teaching of evolution in higher education:
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Please visit the official journal of NEEPS

The Journal of Social, Evolutionary and Cultural Psychology

Editors: Sarah Strout, Daniel Kruger

www.jsecjournal.com

Welcoming submissions combining two or more subfields of psychology or psychology and a related field of study.

Acknowledgements

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Local Hosts

Rebecca Burch (Conference Coordinator)

NEEPS 2009 Timetable

Thursday

| | | |
|-----------------------|--------------------------|----------------|
| | Syracuse Airport Shuttle | Room |
| 3:00 p.m. – 9:00 p.m. | Registration | Activity Court |
| 7:00 p.m. – 9:00 p.m. | Welcoming Reception | Activity Court |

Friday

| | | |
|-------------------------|---------------------------------------|-----------------|
| | Syracuse Airport shuttle | Room |
| 8:00 – 9:00 a.m. | Breakfast | Cooper |
| 9:00 – 9:10 a.m. | Welcoming Remarks | CC 118 |
| 9:10 – 10:30 a.m. | Oral session 1: 4 papers | CC 118 |
| 10:30 a.m. – 10:40 a.m. | Break | CC 120 |
| 10:40 a.m. – 12:00 p.m. | Oral session 2: 4 papers | CC 118 |
| 12:00 p.m. – 1:00 p.m. | Lunch | Cooper |
| 1:00 p.m. – 2:00 p.m. | Oral session 3: 3 papers | CC 118 |
| 2:00 p.m. – 2:10 p.m. | Break | CC 120 |
| 2:10 p.m. – 3:10 p.m. | Oral session 4: 3 papers | CC 118 |
| 3:10 p.m. – 3:20 p.m. | Break | CC 120 |
| 3:20 p.m. – 4:20 p.m. | Student Talk | CC 118 |
| 4:20 p.m. – 4:30 p.m. | Break | CC 120 |
| 4:30 p.m. – 5:30 p.m. | Keynote #1 – Helen Fisher | CC 118 |
| 5:30 p.m. – 6:00 p.m. | Break | |
| 6:00 p.m. – 8:00 p.m. | BBQ | Lawn |
| | (BBQ Rain) | Hewitt Ballroom |
| 8:00 p.m. – 10:00 p.m. | Semi-structured night out on the town | |

Saturday

| | | |
|-------------------------|--|--------------------|
| | | Room |
| 8:00 – 9:10 a.m. | Breakfast | Cooper |
| 9:10 – 10:30 a.m. | Oral session 5: 4 papers | CC 118 |
| 10:30 a.m. – 10:40 a.m. | Break | CC 120 |
| 10:40 a.m. – 12:00 a.m. | Oral session 6: 4 papers | CC 118 |
| 12:00 p.m. – 1:00 p.m. | Lunch | Cooper |
| 1:00 p.m. – 2:20 p.m. | Oral session 7: 4 papers | CC 118 |
| 2:20 p.m. – 2:30 p.m. | Break | CC 120 |
| 2:30 p.m. – 4:00 p.m. | Business Meeting | CC 114 |
| 4:00 p.m. – 5:00 p.m. | Keynote #2 – Satoshi Kanazawa | CC 118 |
| 5:00 p.m. – 7:00 p.m. | Poster Session (display after 3:00 Friday) | Hewitt Main Lounge |
| 7:00 p.m. – 9:00 p.m. | Banquet | Hewitt Ballroom |
| 9:00 p.m. – 11:00 p.m. | Semi-structured night out on the town | |

Sunday

| | | |
|--------------------|--------------------------|-------------|
| | Syracuse Airport Shuttle | Room |
| 9:00 – 10:00 a.m. | Breakfast | Cooper |
| 10:00 – 11:40 a.m. | Oral session 8: 5 papers | CC 118 |

Schedule of Presentations and Abstracts

Friday, July 10, 2009

Session 1 9:10 – 10:30 a.m.

Sequences in human mate-selection and decision making

Karl Grammer (karl.grammer@univie.ac.at), Martin Fieder, Elisabeth Oberzaucher

We will present data from people actually searching for a mate in a video dating service (N=12400). The theoretical approach is based on evolutionary psychological constraints in mate-selection and the underlying cognitive mechanisms. We describe mate search in terms of offers and demands on a market with specific market values. Age, status and attractiveness form basic variables. We compared actual search preferences and their outcomes from N=1000 married pairs. We found that homogamy and not complementary of traits can be found in pairs. We also can show that males and females use different search strategies depending from status and age. This analysis is based on 190.000 real dates. The general conclusion is that adaptations from our evolutionary past are still working and not out ruled by changes in modern society and changes in economic and medical conditions.

Are attractive signals more pronounced in ovulation - or are they attractive because they signal ovulation?

Elisabeth Oberzaucher (elisabeth.oberzaucher@univie.ac.at), Stanislav Katina, Susanne Schmehl, Iris Holzleitner, Ines Mehu-Blantar, Karl Grammer

In humans, no obvious signals indicating the fertile window of female cycles are known, leading to the prevailing assumption that women's ovulation is concealed. Evidence suggests cycle-dependent variations in appearance, perception and behaviour, though. We recruited 20 young women and took standardised facial photographs daily for 30 days. In a forced choice task, 50 male and 50 female subjects rated facial photographs and skin patches, comparing luteal and ovulatory stimuli. Then we analysed the morphological shape and symmetry changes with Geometric Morphometrics. Our findings confirm earlier evidence of increased attractiveness during the fertile phase. We show that jaw is broader and the distance between eyes and eyebrows is larger in the luteal phase. In the ovulatory phase lips are fuller and the whole face is less robust. Moreover, results indicate slight colour and texture changes. We suggest our findings could provide an impetus for a renewed theoretical discussion about attractiveness.

Curvaceous female bodies activate neural reward centers in male brains*Steve M. Platek (splatek@gmail.com)*

Secondary sexual characteristics convey information about reproductive potential and attractiveness. Waist-to-hip-ratio (WHR) is a phenotypic cue/honest biological signal to fertility and overall health in women and is a putative indication of 'good genes'. WHR value of 0.7 is consistently rated as attractive and correlates with health and fertility indicators. Here, using functional magnetic resonance imaging (fMRI), we show activation in neural reward centers when men view images of naked female bodies that were surgically altered to express optimal (~0.7) WHR. These results are consistent with literature indicating that WHR is a key component to female attractiveness and also support an "attentional attunement" hypothesis to attractive WHR.

Evolutionary and cultural influences on homosexual male mating strategies*Sarah L. Strout, (s.strout@snhu.edu), Elysia E. Dutton*

Twenty-five homosexual and 21 heterosexual males were compared using the SOI, a mating preferences questionnaire, and an open-ended questionnaire. We hypothesized that the groups would differ on these measures. The groups did not differ on the SOI, indicating that gender is a better indicator of sociosexuality than sexual orientation. The groups did differ on the traits wanted in a mate. Heterosexual males rated evolutionarily relevant traits higher while homosexual males rated culturally relevant traits higher. Lastly, we found that homosexual men who reported religion as important had lower sociosexuality than those who did not find religion important ($t=2.230$, $p=.033$). We did not find this difference in heterosexual men, suggesting that culture may be more influential for homosexual men than heterosexual men. In conclusion, the degree to which mating strategies are guided by evolution or culture seems to be dependent on sexual orientation.

Session 2 Friday 10:40 a.m. – 12:00 p.m.Sex-differences in humor-appreciation: An observational approach*Susanne F. Schmehl (susanne.schmehl@univie.ac.at), Christine Buchegger, Elisabeth Oberzaucher, Karl Grammer*

What kind of humor do we find funny? Might humor appreciation be related to topics that were relevant in our evolutionary history? If so, then selection pressures for our male and female ancestors might have led to sex differences in humor appreciation. Research on humor appreciation has been confined to questionnaire studies. Hence we decided to use an observational approach to analyze the difference in the amount of smiling and laughing of 167 subjects (84

male, 83 female) watching 18 funny commercials. Our results do not show a significant sex difference in the total amount of behavioural correspondents (i.e. facial expressions) of humor. Findings suggest that the current emotional state strongly affects expressive behavior. With this study we provide additional empirical evidence that facial expressions are ambiguous signals, whose meaning is modulated by other communication channels.

Beyond Genes: Cultural Evolution, the Imagination, and the Literature of the English Romantics

Leslie L. Heywood (heywood@binghamton.edu), Yasha Hartberg

Although evolutionary thinking has gained a foothold in the social sciences, in the humanities, with a few exceptions, it is still largely rejected. The perspective of cultural evolution as developed by Richerson, Henrich, Boyd, and others offers ways to productively develop a paradigm with true explanatory power across disciplines, and the beginnings of a conversation about lower and upper level questions that can take into account aesthetic issues such as the imagination and the universal literary preoccupation with the transcendence of materiality, which may not otherwise seem amenable to evolutionary analysis. The literature of the English Romantics (principally the poetry of Lord Byron and John Keats) serves as a test case for the development of this analytical model and its contribution to evolutionary studies.

What Women Want as Revealed by Harlequin Romance Novel Titles

Maryanne Fisher (mlfisher@smu.ca) Anthony Cox

In accordance with past research by Darwinian literary theorists, we analysed the titles of Harlequin romance novels to provide insight into women's evolved mating strategies and interests. As titles affect sales, we presume that they are selected to satisfy market demands. We predicted that titles contain information about potential mates, women's physical attractiveness (i.e., which women offer to mates) or would reference reproduction (e.g., pregnancy, paternity certainty, paternal care, fatherhood) since women may select mates with respect to these factors. Titles were also predicted to describe male mating strategies or identify relationship properties (e.g., marriage, duration). A cursory qualitative analysis of all Harlequin titles provided results that support these hypotheses. There are also many titles that reflect "exotic," locations, include terms such as "paradise," or contain geographic locations. We subsequently will use techniques derived from the field of information retrieval to perform deeper analysis. In recent years there has been a marked increase in the number of books and articles produced by the so-called "new atheists,"

Art as an aphrodisiac: Creative mate preferences as a function of actual and self-perceived intelligence and creativity

Scott Barry Kaufman (scott.kaufman@yale.edu), Jane E. Erickson, Julie Y. Huang, Sheela Ramesh, Andrew Thompson, Aaron Kozbelt, Elliot S. Paul, James C. Kaufman

Prior research indicates that humans select mates based on various dimensions, including physical attractiveness, intelligence, and personality. Considerably less research has investigated the significance of trait creativity in predicting creativity as a mate preference. The current study investigated this issue in a large, ethnically diverse college-age sample. Measured were each participant's 1) everyday engagement in creative behaviors, 2) lifetime creative achievement across 11 domains, and 3) self-perceived intelligence, creativity, and physical attractiveness. As a dependent measure, the extent to which each individual considered 44 creative behaviors sexually attractive in potential mates was assessed. Correlations among these variables were examined to investigate linkages between preference for particular forms in a potential mates and both (a) engagement/achievement across multiple domains of creativity, and b) the three self-perception measures. Correlations among creativity, sociosexuality and relationship satisfaction were also examined. Personality, fluid intelligence, and vocabulary were investigated as potential moderators of these relationships.

Session 3 Friday 1:00 p.m. – 2:00 p.m.

The State of NEEPS 2009

Glenn Geher (geherg@newpaltz.edu)

The categorization of “Bad animal” and its relation to animal appearances: A study of 6-year-old children’s perceptions

Susie Lee (susielee.on@gmail.com), Kang Hyoung-Ryul

This study was motivated by anecdotal observations of preschool children’s demonizing some animals while playing with figures. To understand what children value as “evil,” physical prompts associated with “bad animal” were explored in this twofold study on 6-year-old South Korean children. First, children’s drawings of “bad animal” were contrasted with that of “good animal” in their appearance features. “Claw,” “sharp teeth,” “open mouth” were positively related to the “bad animals” while “smiling eyes” and “smiling mouth” were negatively related (all $p < .003$). In an additional test, children categorized animals depicted with “shaped eyes,” “sharp teeth” and/or without “smiling eyes,” “smiling mouth” more as “bad animals.” In general, characteristics associated with badness of an animal could be interpreted as facial features of angry person or carnivorous animal. We propose that the process of demonizing someone may

depend upon emotional state of fear which can be evoked by certain visual signals, or “releasers.”

The parenting ape

Anthony A. Volk (tvolk@brocku.ca), Jeremy Atkinson

Building on previous research, we examine over 80 different historical, hunter-gatherer, agricultural, and primate infant and juvenile mortality rates. We find a striking degree of convergence in the mortality rates of past human populations (with a slight exception in agriculturalist groups). Overall, roughly a quarter of all infants and roughly half of all children failed to survive to adulthood. The similarities of this mortality pattern to primates is briefly discussed before turning our attention to the potential implications for the evolution of the human mind. Most importantly, we believe that the selective pressure of child death may have been a catalyst towards propelling “The Parenting Ape” into forming complex social groups, with their attendant high levels of intelligence.

Session 4 Friday 2:10 p.m. – 3:10 p.m.

Finger length ratio and attitudes towards various product categories

Marcelo V. Nepomuceno (m_nepomu@jmsb.concordia.ca), Gad Saad, Eric Stenstrom, Zack Mendenhall

Finger length ratio, a sexually dimorphic trait, is affected by androgen exposure in the uterus. The second-to-fourth finger length ratio (2D:4D) has been linked to a wide range of human phenomena. We proposed that finger length ratio would correlate with attitudes towards product categories that have a strong male penchant. Using a sample of university students, two key findings were obtained. First, the length of the index finger relative to the sum of the lengths of all four fingers (2rel) was generally a better predictor of the collected product attitudes than 2D:4D. Second, we found significant ($p < .05$) or marginally significant ($p < .10$) correlations between 2rel and attitudes in Caucasians for four out of the nine product categories preferred by males. Our results are in accordance with previous finger length ratio studies on ethnically heterogeneous samples, and reinforce the importance of controlling for ethnicity in future research.

Digit length ratios and conspicuous consumption

Eric Stenstrom (e_stenst@jmsb.concordia.ca), Gad Saad, Marcelo V. Nepomuceno, Zack Mendenhall

The second-to-fourth digit length ratio (2D:4D), a proxy for prenatal androgen exposure, has been associated with a plethora of sexually differentiated abilities

and personality traits. Yet, little is known regarding the relationship between 2D:4D and sex-specific consumption preferences. We examine the relationship between digit ratios and conspicuous consumption, a predominantly male phenomenon. Significant correlations were found between 2D:4D and the propensity to engage in conspicuous consumption, in an ethnically homogeneous sample of men and women. Specifically, low 2D:4D Caucasians displayed a greater appetite for conspicuous consumption. The length of the second finger relative to the sum of the lengths of all four fingers (2rel) was also negatively correlated with conspicuous consumption. Our findings add to the growing body of evidence linking digit ratios to economic decision making. Furthermore, our results suggest that future research should account for ethnic heterogeneity, and consider 2rel as an additional proxy of prenatal androgen exposure.

Ancestral foraging strategies and sex differences in shopping experiences

Daniel J. Kruger (djk2012@gmail.com), Maryanne L. Fisher, Dreyson Byker

This study documents that men and women experience consumer shopping differently, and in ways consistent with adaptations to the sexually dimorphic foraging strategies utilized during human evolution. Compared to men, women relied more on object oriented navigation strategies and scored higher on skills and behaviors associated with gathering, the degree to which shopping is seen as recreational, the degree to which shopping is a socializing activity, and the tendency to see new locations as opportunities for shopping. Men scored higher on skills and behaviors thought to be associated with hunting. These results suggest that shopping experiences are influenced by sexually divergent adaptations for gathering and hunting, and indicate how shopping can be understood of as foraging in the modern consumer environment.

Friday 4:30 p.m. – 5:30 p.m.

Keynote Talk by Helen Fisher

Lust, romance, attachment: The drive to love and who we choose.

Helen Fisher explores the biological relationships between the brain systems for lust, romance and attachment to illustrate the neural underpinnings of the primary hominid reproductive strategy: serial/long term monogamy in conjunction with clandestine adultery. Then she discusses her brain scanning (fMRI) experiments on individuals who are happily in love, rejected in love and "in love" long term to illustrate the evolution of this primary mating drive, romantic love. Last, she uses data on 40,000 individuals to illustrate the biological underpinnings of four broad basic constellations of temperament traits (behavior syndromes), and data on 28,000 individuals to illustrate several biological patterns of mate choice.

Saturday, July 11, 2009

Session 5 9:10 – 10:20 a.m.

Involuntary subordination and its relation to personality, depression, and social anxiety

Edward D. Sturman (estur001@plattsburgh.edu), Myriam Mongrain, Ceri Boersman

According to social rank theory, involuntary subordination may be adaptive in species that compete for resources as a mechanism to switch off fighting behaviors when loss is imminent. In this way an organism saves itself from injury. In humans, major depression is thought to occur when involuntary subordination becomes prolonged. In a recent study we operationalized involuntary subordination and found that it was related to a number of personality variables including self-criticism, dependency, perfectionism cognitions, neuroticism, and lower levels of self-esteem, self-efficacy, and extraversion. Therefore, individuals scoring high on involuntary subordination could be described as having a highly neurotic personality style and scoring low on indicators of dominance such as extraversion and self-esteem. Involuntary subordination also predicted increased depressive symptoms over a 9-week period as well as increased social anxiety and was found to be a relatively stable trait.

Dominance as adaptive stressing and ranking of males, serving to allocate reproduction by differential self-suppressed fertility: Towards a fully biological understanding of social systems

Steve P. Moxon (stevemoxon3@talktalk.net)

Dominance (hierarchy) is thought to increase fitness through minimizing mutually unproductive contest over resources, and/or determining access to resources. But highly inconsistent data indicates this operational definition to be too wide; and given clear evidence that dominance is invariably same-sex, it would seem instead to function primarily to allocate reproduction -- by creating rather than ameliorating conflict. However, this achieves nothing in itself without associated mechanisms; most fundamentally a corresponding individual variable self-suppression of the physiology re reproduction. This seems to vary across species, from a 100% reproductive skew to a gradient down the length of the dominance hierarchy. The theory makes mutually exclusive predictions, and is supported by re-analysis of data of supposed female (or male) dominance, gene 'knockout' experiments, and study of contrasting breeding mechanisms. This new understanding shows that resource-competition models of sociality should give way to one that places reproduction center-stage.

Body Mass Index (BMI) predicts peer aggression in adolescent females: Implications regarding intrasexual aggression and reproductive competition
Andrew C. Gallup (a.c.gallup@gmail.com), David S. Wilson

Two separate studies investigated peer aggression in adolescence from an evolutionary perspective. In the first study, one-hundred fifty-nine 9th grade students (74 males, 85 females) completed self-report measures of peer aggression during middle and high school, and their BMI was calculated during a yearly health screening collection. Results show that measures of indirect aggression were positively correlated with BMI in females, but not males. The second study investigated 12th grade student yearbook photos ratings in relation to BMI. One-hundred seventy-seven students (75 males, 102 females) from the same high school were rated on aggressiveness and physical attractiveness by independent raters. Ratings of aggression were positively correlated with BMI in females only, while ratings of attractiveness were negatively correlated with BMI in both males and females. These findings remain consistent with research suggesting that aggression among adolescent females is mediated by attractiveness levels. Evolutionary interpretations regarding reproductive competition will be discussed.

Handgrip strength predicts reproductive success only in women: Further evidence for the grandmother hypothesis?
Jeremy A. Atkinson (jeremy.atkinson@gmail.com)

Correlating a sexually dimorphic trait with reproductive success (RS) in a traditional society remains the 'gold standard' in evolutionary psychology research. Within each sex, if more dimorphic individuals have increased RS then this is strong evidence that the trait is an important phenotypic fitness marker, likely used as a mate choice criterion and possibly undergoing selection. However many sexually dimorphic traits can also be intrinsically related to general health and phenotypic quality. Thus there may be a positive correlation between RS and absolute levels of the trait within each sex. This study investigated whether or not Handgrip strength (HGS), a sexually dimorphic trait that is also fundamentally related to ontogenetic, current and future health as well as longevity, was positively correlated to RS in both sexes in a traditional-living pastoralist society (the Himba). HGS predicted RS in women. These results will be discussed in relation to the grandmother hypothesis

Session 6 Saturday 10:40 a.m. – 12:00 a.m.

What is love: Further investigation of love acts
T. Joel Wade (jwade@bucknell.edu), Gretchen Auer, Tanya M. Roth

Three studies were implemented in order to ascertain: the actions that men and women engage in to indicate love to a partner, which actions are the most prototypical love acts, and which actions are the most effective love acts. Men and women's love acts were expected to differ. Additionally, the most prominent love acts were expected to be rated as the most prototypical love acts, and the most prototypical love acts were expected to be rated as most effective by both sexes. The results were consistent with the hypotheses. These findings are discussed in terms of prior research.

Are mating orientations stable traits or fluctuating states?

Gordon Bear (gbear@ramapo.edu), Jonathan Marose

Heterosexual young men (N = 70) viewed 20 photographs. On ten-item measures of short-term and long-term mating orientations (Jackson & Kirkpatrick, 2007), no significant differences occurred among men who saw pictures of attractive young women provocatively dressed, men who saw pictures of couples in wedding clothes, and men who saw pictures of candies. Four-item measures of the Big Five factors of personality were likewise unaffected by the priming. Even these short inventories appear to assess stable traits unresponsive to situational influences.

Behavioral neurogenetics of infidelity and uncommitted sex

Justin R. Garcia (jgarcia3@binghamton.edu), James MacKillop, Ann M. Merriwether, David S. Wilson, J. K. Lum

Human sexual behavior is complex and variable, influenced by both our evolutionary biology and the socio-cultural context with which we live. While a substantial literature exists on the role of infidelity and short-term mating in human evolution, proximate mechanisms influencing such behaviors remain unclear. Here we present results from a behavioral neurogenetics study on 181 university students, providing the first genetic evidence for promiscuity and infidelity. Various sensation-seeking behaviors have been previously associated with having at least one allele 7 repeats or longer (7R+) at the dopamine receptor polymorphisms DRD4 48bp VNTR. Individuals with 7R+ reported having ever engaged in a one-night stand almost twice as much as 7R- (45% vs. 24%). Further, individuals with 7R+ reported having ever cheated on their partner (infidelity) over twice as much as 7R- (50% vs. 22%). This suggests that some degree of infidelity and promiscuity is motivated by the dopaminergic reward circuitry.

Sex differences in attitudes and experiences regarding uncommitted sexual encounters

Anthony Cox (amcox@cenpsycom.org), Kerry Worth, Maryanne Fisher

Prior research shows that attitudes towards casual sex and self-reported behaviours partly depend upon the terms used to describe the experience. Also, although people may engage in uncommitted sexual encounters (USE) and expect no later involvement, it has been suggested that some individuals desire a more committed relationship. One additional factor that has received no attention is the influence of the quality of the sex on feelings regarding the encounter. A total of 62% of men and 65% of women reported engaging in at least one USE. Contrary to our predictions, the majority pursued some form of relationship after a USE, even if the person was a stranger. Finally, the quality of the sex impacted on feelings, with good sex resulting in satisfaction and poor sex resulting in disappointment. Regret was also linked to the quality of sex, with good sex causing less regret over the USE.

Session 7 Saturday 10:30 a.m. – 11:50 a.m.

Early human warfare and the evolution of social organization

Nicholas A. Seltzer (naseltzer@gmail.com)

There is a growing consensus among Darwinian social scientists that warfare was sufficiently frequent and severe in humanity's distant past to have impacted our biological evolution. At the same time, a parallel project has emerged to investigate possible evolutionary origins of within-group organizational structures. Laboratory and clinical results show people possess diverse personality types that appear to have a genetic basis. For some, these results suggest a natural structure of society evolved as a means to solve social problems. War, as now seems likely, was at once an imminent and existential threat for early human groups, as well as an opportunity to advance their adaptive advantage. If a natural structure exists, we should expect it to reflect the exigencies of war. This paper attempts to refocus debate on the origins of social organization in light of selective pressures characteristic of an environment where war was a prominent feature. It does so by (1) identifying such selection pressures, (2) speaking generally on organization as a response, (3) applying three emerging views on the origin of social organization, and (4) identifying potential directions for future research.

In- and out-group membership impacts neural responses to social exclusion

Austen L. Krill (austen.krill@gmail.com), Steven M. Platek

Functional magnetic resonance imaging (fMRI) was employed to examine sensitivity to social exclusion in three conditions: same-race, other-race, and self-resembling faces. The anterior cingulate cortex (ACC), specifically the dorsal ACC, has been targeted as a key substrate in the physical and social pain matrix

and was hypothesized to regulate activation response to various manipulated social conditions involving in and out group members. We show that participants demonstrated greatest ACC activation when being excluded by self-resembling and same-race faces, relative to other-race faces. Additionally, participants expressed greater distress and showed increased ACC activation as a result of exclusion in the same-race condition relative to the other-race condition. A positive correlation between implicit racial bias and activation in the amygdala was also evident. Implicit attitude about other-race faces partly explains levels of concern about exclusion by out-group individuals. These findings suggest that individuals are more distressed and their brain (i.e. neural alarm system) responds with greater activation when being excluded by individuals whom they are more likely to share group membership with.

The influence of name choices and similarity on kin relationships

Erin S. Lavender-Stott (elavender-stott@hollins.edu), Richard L. Michalski

Using data collected from 182 participants, we tested hypotheses about naming practices and kin investment. We found strong statistical support for the influence of similarity on kin investment. Individuals reporting greater similarity with kin reported more frequent contact and reported calling them sooner in a hypothetical emergency. We also found a pattern of contact consistent with predictions derived from inclusive fitness theory (W.D. Hamilton, 1964) and an evolutionary history of paternity uncertainty. Participants reported more frequent contact with maternal grandmothers than other grandparents. Participants reported they would call female kin sooner than male kin and genetically closer kin before more distal kin in a hypothetical emergency. We did not document a preference for offspring to be named after either maternal or paternal kin nor did this vary with maternal age at birth of the participant or birth order of the participant.

Development of recursive awareness of intentionality: Theory of Mind beyond false-belief

Rachelle M. Smith (Rachelle.Smith@maine.edu)

In the present study, it was proposed that Recursive Awareness of Intentionality (RAI) (the understanding that a social partner may be observing one's behavior in an attempt to gain insight into one's intentions and that one can observe the partner's behavior to gain similar insight) is not present during young childhood, even after ages of traditional Theory of Mind (TOM) mastery. Three age groups (4-, 6-, and 8-year-olds) participated in guessing games that were designed so that children with an understanding of RAI would be more effective competitors than children who lacked such awareness. Analyses revealed significant trends in the development of RAI by age. Historically, TOM research culminates with the preschooler's mastery of the false-belief task, but these results suggest that there

are significant developments that occur after the achievement of false-belief that contribute to an adult-like TOM.

Saturday 4:00 p.m. – 5:00 p.m.

Keynote Talk by Satoshi Kanazawa

Why intelligent people do unnatural things.

If general intelligence evolved to solve evolutionarily novel problems, then the human brain's difficulty in comprehending and dealing with entities and situations that did not exist in the ancestral environment (proposed in the Savanna Principle) should interact with general intelligence, such that the Savanna Principle holds stronger among the less intelligent than among the more intelligent. The new Savanna-IQ Interaction Hypothesis, applied to the domain of preferences and values, suggests that more intelligent individuals are more likely to acquire and espouse evolutionarily novel preferences and values than less intelligent individuals. The Hypothesis can explain, among others, why more intelligent people are more likely to: 1) be left-wing liberal; 2) be an atheist; 3) value sexual exclusivity (but only if they are male); 4) be nocturnal; 5) be homosexual; 6) drink and smoke more; and 7) be the ultimate losers in life.

Sunday, July 12, 2009

Session 8 10:00 –11:40 a.m.

The God metaphor

Edward A. Avery-Natale (tua65420@temple.edu)

In recent years there has been a marked increase in the number of books and articles produced by the so-called “new atheists,” led by authors such as Richard Dawkins and Daniel Dennett. However, while Dawkins’ concept of memes is, in many ways, at least partially a linguistic concept, indicating that Darwinian processes can impact cultural forms, little work has been done on incorporating linguistics from an evolutionary perspective into works on the origins of the belief in god(s) and general religious faith. This paper analyzes linguistics and their connections to supernatural beliefs using works from comparative and evolutionary biology, theoretical biology, comparative religion, neural networks, linguistics, and philosophy. I ultimately show how the metaphoric and semiotic nature of human cognition could have possibly developed and how this could have led to a belief in god(s) and the supernatural.

The moral irony of creationists*Kilian J. Garvey (kgarvey@une.edu)*

While evolution by natural selection is considered the strongest theory in the history of science it is rejected by more than half of the population and is an extremely controversial concept. An especially pervasive “argument” is that evolution was the inspiration of men like Hitler, and that acceptance of natural selection will lead to the breakdown of society. Evolution is, in a word, immoral. In an attempt to explore the morality of the creationism-evolution conflict, 96 participants completed both the Moral Foundations Questionnaire and the Creation/Evolution Questionnaire. Results indicate that the moral characteristics of creationists differ substantially from those of evolutionists. Ironically, creationists were more tolerant of harming others and less sensitive to individual rights than were evolutionists. It is hypothesized that rejection of evolution is motivated, at least in part, by an interpretation of the theory as a threat to a social worldview.

Evolution is not relevant to sex differences in humans because I want it that way!Evidence for the politicization of Evolutionary Psychology*Glenn Geher (geherg@newpaltz.edu), Daniel Gambacorta, Kathleen B. Geher*

While much research has documented sex differences in behavioral traits in humans, resistance to this idea remains strong among many academics. This research explored possible political motivations underlying this resistance. Data were collected from approximately 200 adults including academics/non-academics and parents/non-parents. Dependent variables represent whether participants believe qualities are primarily the result of evolution or socialization. Qualities assessed include: (a) sex differences in humans, (b) sex differences in chickens, (c) universal features of humans, and (d) differences between dogs and cats. Preliminary analyses suggest that academics are less likely than others to see behavioral sex differences as due to “nature” and that parents are relatively likely to appeal to “nature” as an explanation for sex differences in humans. Also, liberals differed from conservatives, with liberals less likely to appeal to “nature.” These data suggest that resistance to scholarship depicting evolved behavioral sex differences in humans within academia is largely politically motivated.

The interdisciplinarity of evolutionary approaches to human behavior: A key to survival in the Ivory Archipelago*Benjamin S. Crosier (bencrosier@gmail.com), Justin R. Garcia, Glenn Geher, Gad Saad, Daniel Gambacorta, Elissa Prancickas, Laura Johnsen*

In recent decades, the influence of evolutionary theory has increased in the behavioral sciences - allowing for biological-based theorizing to be integrated

within psychology. A key to evolutionary psychology's (EP) increased influence is its interdisciplinarity, a crucial element to the continued success of any scientific field (Barry, 2001). We collected data to examine the degree to which EP champions interdisciplinarity. By analyzing the departmental affiliations of 1,000 first-authors from ten premier psychology journals - belonging to five major perspective-based areas - it was shown that EP is considerably more interdisciplinary than other fields. This fact was true when examining the total number of first-authors outside psychology per journal as well as the total number of non-psychology disciplines included. In light of the current nationwide push for interdisciplinary evolutionary studies programs, the key to the future of EP may well lie in its interdisciplinary nature.

"Evolution for Everyone": A course that brings Darwin's theory to the masses
Daniel T. O'Brien (dtumminelliob@yahoo.com), David S. Wilson

Evolutionary theory proposes a severe paradox: it is the most useful tool we have for describing the many phenomena associated with living things, but it is embroiled in cultural battles. Not only does much of the American populace reject it, many thinkers within the scientific community resist its application to their own disciplines. In an attempt to usher in a new age of thought that embraces evolutionary theory, we have developed the course Evolution for Everyone. A general education course, the curriculum delves into Darwin's theory and its extensions, using them to illustrate classical biology as well as humans. This material is framed within the scientific method, giving the students the necessary tools for their own scientific inquiry. Alumni of the course demonstrate competence in using the scientific method, basic statistics, and report a more sophisticated opinion of evolution and its relevance to everyday life.

Poster Presentations

1. Closed Seating Posture as a Self-Protective Behavior
Kelly J. Carrone (evolutionkelly@gmail.com), Gordon G. Gallup

Female mate choice has been an important feature in human evolution and takes two broad forms: attracting desirable mates and deterring attention from undesirable ones. In the present work, closed seating posture was investigated as a way females unwittingly work to deter unwanted male sexual attention. Adopting a closed seating posture blocks the view of one's genitals, and, given the prominent role of ano-genital display in species with whom humans share a common lineage, might play a role in human mate choice signaling as well. Participants were videotaped while sitting with a male or female confederate who either gazed at or away from the participant. While females were twenty times more likely to adopt closed seating postures than men, no effect of confederate

gender, attention condition, or gender x attention was observed. Post-hoc analysis revealed that females who never experienced rape or other forced sexual activity were the most likely group to exclusively adopt closed seating postures, thereby raising the possibility that closed seating posture is a self-protective behavior that effectively deters unwanted male sexual attention.

2. Forget Nuance, Seating Posture is Conceptualized as Open or Closed

Kelly J. Carrone (evolutionkelly@gmail.com), Gordon G. Gallup

Communication is inherently a two (or more) person process; without a recipient there is no communication, just soliloquy. For communication to occur, information is encoded and sent to an implied recipient or recipients. Upon receipt, that information must be decoded/interpreted. Seating posture is a not-well-studied nonverbal behavior, and basic information about how it is decoded is lacking. In the present study, ratings of seating postures were gathered from non-naïve judges. Ratings were subjected to multidimensional scaling analysis, which showed that individuals conceptualize seating posture along one dimension. The one-dimensional solution does not represent a continuum; rather, data are tightly clustered in two points representing open and closed postures. There is no difference in interpretation when analyzed by rater's sex, and agreement across raters is high (ICC C,11=.948). The one-dimensional solution is the objectively best fitting solution, and a near perfect fit to the data ($R^2=0.99993$). Implications for future research and for a theory of seating posture as an adaptive behavior are discussed.

3. A Woman's Walk: Attractiveness in Motion

James F. Doyle (jamesfrancisdoyle@yahoo.com)

Abstract: Men are attracted to the movements of women's bodies. The aim of this paper is to answer the question, Why? The role of the peak shift effect in perceptions of physical attractiveness involving women's waist-to-hip ratios (WHRs) in biological motion is presented. Photographs of a coordinated motor pattern, walking, are investigated with a novel measurement method. Evidence is presented that the behavior pattern contains alternating left and right side, attractive (S+) and unattractive (S-), WHR stimuli. A WHR stimulus range is established that is sufficient to generate peak shift effects in perceptions of physical attractiveness and it is predicted that WHRs in attractive behavior patterns will be significantly lower than those previously found to be preferred using 0.70 WHR still images and therefore WHRs in motion represent S++, or "supernormal stimuli", in behavior.

4. Cerebral laterality of ontological beliefs: Is the left hemisphere more likely to make type one errors?

Kilian J. Garvey (kgarvey@une.edu)

Strongly right-handed (SRH) individuals are more likely than mixed or left handed individuals to accept biblical creationism (vs. biological evolution) as an explanation for the diversity of life on earth. The primary hypothesis is that reduced interhemispheric communication (more typical of SRHers) results in an attenuated system of updating beliefs. An alternative hypothesis is that reduced interhemispheric communication fails to fully integrate local/global aspects of the complexity of evolution concepts and may result in a Type One Error, rejecting natural selection. Study 1 found an association between SRH and creationism. Study 2 found that SRH is also associated with a lower tolerance of ambiguity and more sensitive fear reactions to a variety of environmental stimuli. It is hypothesized that in addition to attenuated updating systems, SRHers may have an overly sensitive threat assessment system and are more likely to perceive evolution as an existential threat.

5. Implicit neural activation to faces of untrustworthy individuals

David S. Gordon (david_s_gordon@hotmail.com), Steven M. Platek

Trusting another individual is one of the most important decisions a person has to make. Making accurate judgements of trustworthiness is predicted to be evolutionarily advantageous. There is evidence for consistent consensus when rating faces on trustworthiness, and faces rated along dimensions of trustworthiness have been shown to activate the amygdala. We investigated the extent to which amygdala activation corresponds to actual untrustworthy traits associated with facial stimuli. Using functional magnetic resonance imaging (fMRI) six participants were scanned while viewing faces of people that varied in Dark Triad personality characteristics. There was significant activation in the amygdala in response to faces associated with high psychopathy and high Machiavellianism. The findings support recent work demonstrating a relationship between facial morphometric geometry as honest biological signals and personality traits. The psychopathy findings in particular support recent work suggesting threat to be a large component of implicit neurological response to trustworthiness.

6. The potential use of social cues in human sibling discernment

Donald M. Granville (dod_granville@hotmail.com), Steven M. Platek

With respect to kin selection, much attention has been paid to the evolutionary consequences of female infidelity and cuckoldry on adult mating behaviour. Less emphasis, however, has focused on sibling relationships as a function of kinship. Evidence suggests that cuckoldry has been an influential factor in our evolutionary history. This raises the question: Do siblings estimate their likely relatedness to one another, and adjust their behaviour accordingly? This study used a web-based questionnaire to estimate participants' sibling-directed

altruism and sexual aversion. These potential indicators of perceived relatedness were found to correlate negatively with several factors that could be indirectly associated with maternal infidelity. These findings suggest that participants may be able to probabilistically discriminate between full and half-siblings - potentially an evolutionary response to the challenges presented by female infidelity.

7. Kissing is in the eye of the beholder

Marissa A. Harrison (mah52@psu.edu), Susan M. Hughes, Gordon G. Gallup, Jr.

Previous findings have indicated that males generally perceive kissing as a means to gain sexual access to their partner, whereas females use kissing more for mate assessment and pair-bond maintenance (Hughes, Harrison, & Gallup, 2007). In this study, we investigated whether sex differences existed in perceptions of kissers' intentions and behaviors. We presented to 164 college-aged participants photos of couples engaging in different kissing types (i.e. open-mouth, closed-mouth, tongue-involved). Our results showed that males, compared to females, were more likely to rate tongue-involved kissing as indicative of sexual intent and romance. Additionally, males rated couples using both an open-mouth and closed-mouth kiss as being more "in love". These findings further illustrate that kissing may be a mating tactic used to serve the contrasting, sex-specific reproductive strategies of males and females.

8. Rough sex: a mechanism for semen displacement

Mindy Hoftender (hoftende@oswego.edu), Rebecca L. Burch

In a sample of male and female undergraduates, we examined whether the behaviors and triggers of rough sexual behavior supported the argument that rough sex serves as a mechanism for greater semen displacement. Participants were asked a series of questions regarding sexual aggression and rough behaviors during sex, as well as displacement behaviors. Both sexes reported that rough sex was often triggered by male sexual jealousy. Males were more likely to report rough sex being triggered by arguments, being separated from their partner, thinking their partner cheated on them, group sex and after a breakup; all situations where there is an increased probability of female infidelity. Other events, like wrestling, watching pornography, taking drugs, drinking and teasing/joking did not increase rough sex behaviors. Both genders reported that displacement behaviors were greatly increased during rough sex.

9. Vocal and Physiological Changes in Response to the Attractiveness of Conversational Partners

Susan M. Hughes (shughes@alb.edu), Sally D. Farley, Bradley C. Rhodes

We examined how individuals may change their voices when communicating with attractive versus unattractive individuals, and if it were possible for others to

perceive these vocal changes. In addition, we examined if any concurrent physiological effects occurred when communicating with individuals who varied in attractiveness. We found that both sexes used a lower-pitched voice and showed a higher level of physiological arousal when communicating with the more attractive opposite-sex target. Furthermore, independent raters evaluated the voice samples directed toward the attractive target as sounding more pleasant when voice samples from the same person had a reasonably noticeable difference in pitch. These findings may have implications for the role voice plays in mate selection and attraction.

10. Sex-Specific Body Configurations Can Be Estimated From Voice Samples

Susan M. Hughes (shughes@alb.edu), Marissa A. Harrison, Gordon G. Gallup, Jr.

We investigated whether or not participants could infer a speaker's actual waist-to-hip ratio (WHR) and shoulder-to-hip ratio (SHR) based solely on hearing the target's voice. After listening to a voice sample, raters were asked to estimate the speaker's body configuration by choosing from an array of line-drawn figures that depicted variations in WHR and SHR. The estimated WHR (but not SHR) of the female speakers predicted the speakers' actual WHR measurements. In contrast, the estimated SHR (but not WHR) of male speakers predicted the speakers' actual SHR measurements. Even when choosing figures depicting variation in both SHR and WHR, the same pattern of sex-specific accuracy in ratings emerged. These findings corroborate previous studies suggesting that the mere sound of a person's voice may reveal important biological information regarding their mate value.

11. Sex differences in risk taking behavior

Anna M. Keber (keber.anna@gmail.com), Elisabeth Oberzaucher, Karl Grammer

Trivers' theory of asymmetric parental investment and sexual selection proposes that men faced greater intrasexual selection pressure, as they competed for access to reproductive partners. Showing high-risk behavior could be a strategy to impress both women and competitors. Therefore we hypothesized that human behavior shows a sex difference in risk-taking, even when not directly linked to reproduction. We analysed the behavior of 10 women and 10 men in a driving simulation. We measured risk taking in terms of driving errors and driving speed. These measurements were linked to Zuckermann's sensation seeking questionnaire. Additionally we sampled saliva to determine saliva cortisol levels. We expect the amount of mistakes and the calculated driving speed to be higher in men than in women. Moreover, there should be a negative relation between cortisol and risk taking. This study complements empirical knowledge about sex differences in sensation seeking tendencies with observational data.

12. Neighborhood structural deterioration is inversely associated with maternal somatic investment

Daniel J. Kruger (djk2012@gmail.com), Melissa Munsell

Evolutionary Life History Theory (LHT) is a powerful framework that can be used for understanding individual strategies as functional developmental adaptations to environmental conditions. We examined the relationship between neighborhood structural deterioration and maternal somatic investment in Flint, Michigan. Flint is an industrial city where the population grew and declined during the 20th century with the manufacturing capacity of the city's largest employer, General Motors. Deteriorating structures are common in Flint, especially near the former factory. Data on neighborhood physical conditions were obtained from the Flint Environmental Block Assessment project. We used Geographical Information Systems software to calculate the proportion of dilapidated structures in .25 mile square areas. We calculated the proportion of premature births and low birth weight births with data from the state health department. Controlling for maternal education, paternal education, and private insurance status, there were significant inverse relationships between structural deterioration and maternal somatic investment.

13. Representation of Evolutionary Psychology is steadily increasing in flagship Psychology journals

Tom Peterson (thpeter@umich.edu), Daniel J. Kruger

We replicated Webster's (2007) analyses of evolutionary articles as a proportion of total articles in the Journal of Personality and Social Psychology (JPSP) and added data for years 2004-2009 (see Figure 1). Evolutionary articles now comprise about 2% of the articles per year in JPSP. This proportion would rise past 3% in the next ten years at the 1985-2009 rate of increase, although there is some indication that the rate of increase is accelerating. The Journal of Personality and Social Psychology is the flagship journal in personality and social psychology published by the American Psychological Association. To provide a comparison, we have replicated Webster's (2007) methodology for the years 2000-2009 for Psychological Science, the flagship journal of the Association for Psychological Science. Overall, the rate of increase for Psychological Science is higher than that of JPSP. Evolutionary articles now comprise about 3% of the articles per year in Psychological Science.

14. Sexual Coercion in Intimate Relationships: A Comparative Analysis of the Effects of Women's Infidelity and Men's Dominance and Control

James R. Liddle (jliddle1@fau.edu), Aaron T. Goetz, Todd K. Shackelford

Researchers studying the proximate causes of sexual coercion propose that partner rape is motivated by a man's attempt to dominate and control his partner and that this expression of power is the product of men's social roles. Researchers studying the ultimate causes, however, propose that partner rape may function as an anti-cuckoldry tactic, with its occurrence related to a man's suspicions of sexual infidelity. In two studies, we collected data relevant to both perspectives to explore how these variables interact with men's sexual coercion in an intimate relationship. Regression analyses from two studies (self-reports from 256 men and partner-reports from 290 women) indicated that men's sexual coercion of their partners was consistently predicted by female infidelity and men's controlling behavior, suggesting that both variables are necessary to explain sexual coercion. Discussion addressed limitations and highlighted the importance of integrating multiple levels of analysis when studying men's sexual coercion.

15. Factors associated with Hamilton, Ontario Undergraduate Women's Marital Surname Change Attitudes

Melanie D. MacEacheron (maceache@mcmaster.ca)

132 female, never-married, undergraduate psychology students were surveyed regarding attitudes concerning taking their husband's surname upon marriage. It was hypothesized that approval of such a surname change would be associated with their views on (1) resource transfer from, and involvement with, in-laws, and (2) the importance of high resource potential in a candidate husband. Greater approval of taking husband's surname was significantly predicted under OLS regression by desire for in-laws to be involved with the newlywed couple and their children. The importance of resource-holding potential in a candidate husband was a marginally significant predictor, moderated by the women's own professional aspirations, as well as by her own and her family's wealth.

16. Mate Preferences Among Those with Vision Impairment and Loss

Jennifer MacNeil (jennifer.macneil1@ns.sympatico.ca), Maryanne Fisher, Anthony Cox

There has been no study on mate preferences among those who are vision impaired or blind. This population is important, because preferences among those with lowered vision may be the same as sighted individuals, suggesting that these preferences have a deep genetic history across all humans, or they may be different, reflecting unique, individual variation and perhaps adaptive response to personal circumstance. We focused on the latter possibility, with the assumption that evolutionary history would have caused individuals to be maximally adaptive to their personal circumstances, and hence arrive at solutions to individually-relevant problems. We examined the mate preferences among those with vision impairment and loss, and found that the overwhelming majority

list personality characteristics such as kindness, generosity, and understanding as highly important, with only a very small number listing characteristics such as appearance, voice, smell, or touch.

17. Sociosexuality and Social Development at the Transition to College

Elise N. Pepin (e.pepin@snhu.edu), Sarah Strout

Relationships between sociosexuality, attachment, and developmental outcomes in college students are investigated in the current study. Sociosexual orientation evaluates the extent to which one is willing to engage in sexual relations with varying levels of commitment and emotional involvement. College students are at a period of transition when social interaction is central as they develop identity and intimacy. It is important to understand the role of interpersonal relationships because they impact developmental accomplishment. There are many aspects of college students' environments that affect the ways they approach development of relationships with the self and others. Sociosexuality may be an important factor here. We hypothesize that there will be a relationship between development and sociosexuality, and a relationship between attachment or social support and sociosexuality. Further, this poster will identify and explore the patterns of development and social support related with various levels of sociosexuality.

18. Postpartum Depression: Bottle Feeding Simulates Child Loss

R. Nathan Pipitone (rp2497@albany.edu), Kevin Leadholm, Gordon G. Gallup, Jr.

Research has shown that breast feeding confers physiological/psychological benefits for both baby and mother. Among mammals, female physiology changes to prepare for milk production and breast feeding. In the event that the child dies shortly before or after birth these adaptations fail to function. Since bottle feeding did not exist in the EEA, we hypothesize that mothers who currently bottle feed their children unknowingly simulate child loss at a physiological level and as a consequence may be more vulnerable to depression postpartum. We sampled mothers four to six weeks postpartum concerning information about feeding behavior, demographic data, and depression scores on the Edinburgh Depression Inventory. Results showed that even after controlling for various confounding variables, mothers that bottle fed their infants had significantly higher depression scores. These results replicate previous findings in showing that the decision to bottle feed children increases the risk of postpartum depression.

19. Homosexual versus Heterosexual Males in Mating Strategies: An Evolutionary Perspective.

Sarah Radtke (sradtke@ryerson.ca)

This paper compares mating in homosexual and heterosexual males. Homosexual males are investigated to emphasize a dominant male mating strategy that operates when there is no strategic interference operating. Evolutionary explanations are used to interpret the result.

20. Circumcision and semen displacement

Sara M. Ressing (ressing@oswego.edu), Rebecca L. Burch

This study intended to examine differences in semen displacement behaviors between circumcised and uncircumcised males in a college population. Circumcised men were more likely to have cheated on their female partners and to think that their partners had cheated on them. However, reactions to these suspicions, such as mateguarding, physical violence or sexual violence did not differ. Both types of men reacted to suspected infidelity with increased thrusting speed, depth and vigor. While uncircumcised men routinely had intercourse in the missionary position, circumcised men were more likely to engage in lateral entry and female superior positions and in anal sex. Although both men and women report similar thrusting depth, speed and vigor, circumcised men and their partners reported a significant decrease in thrusting behaviors after orgasm. Uncircumcised men may continue thrusting for a longer period after orgasm. While this would presumably result in more displacement, after orgasm it would serve as self semen displacement.

21. Working Towards a Model of Normative Behaviour for Interpersonal Relationships

Sarah Shaw (Sarah.Shaw1@smu.ca), Maryanne Fisher, Anthony Cox

Relationship maintenance is of less interest to evolutionary psychologists compared to issues that lead to acquiring a mate or dissolution of a relationship. This is interesting when maintenance presumably represents a significant component of life for people in our society. In this exploratory study, we investigated some of the potential evolutionarily relevant reasons for why people maintain their current relationships during difficult times. Our analyses reveal that good memories are the major reason people stay with their mate, with issues such as familial or financial pressures being of much less concern. There are also minimal sex differences in attitudes towards one's mate, or for the reasons that one stays in their current relationship, regardless of how satisfying they find it to be. In addition to elaborating on our findings, we will present some lines for future evolutionarily-relevant research within the area of relationship maintenance.

22. What men will and won't do for women with nipple erection*Daniel Sheldon (dsheldon@oswego.edu), Rebecca L. Burch*

Pictures of women were viewed and participants were asked to make attributions as to the women's emotional states, their own emotional states, and most importantly, whether they would behave altruistically toward these women. Half of the photos displayed nipple erection and all of the faces in the photos were obscured to prevent emotional cues. Males were more likely to behave altruistically toward the women in the photos in a number of situations. Females were not. For men, largest differences were found in behaviors that required time spent with the woman and little cost (tutoring her, living with her, doing her assorted favors, but not housesitting, as she would not be home). Males were also more likely to ask the women to do favors for them that required significant time spent. Costly behaviors (such as sharing food when hungry, saving from drowning when the participant isn't a good swimmer) did not increase.

23. I'll get to that later! Can procrastination be a sexually selected trait?*Aaron M. Turpin (aturpin@ggc.usg.edu), Steven M. Platek*

Procrastination is self-handicapping and generally regarded as dysfunctional. However there are hallmarks of procrastination that bear resemblance to well-known sexually selected traits. Additionally, procrastinators have been described as experiencing less stress and better health when deadlines are far off. Finally, there is variation in the expression of procrastination into at least two forms one called passive (negative) and active (positive). This variance has been associated with differences in self-efficacy, stress-coping style, motivational orientation, and personal outcomes. Thus, we hypothesize that the expression of procrastination (passive/active type) resembles other sexually selected traits (self-handicapping, potentially dysfunctional, and relating to signaling of honest cues of health and stress-coping) and as such may also be a sexually selected psychological mechanism. We theorize about the means by which people would detect procrastination if it were an honest biosignal as well as the potential evolutionary advantages that might be linked to active procrastination.

24. Belonging to the Same Religion Enhances the Opinion of Others' Kindness and Morality*David R. Widman (widman@juniata.edu), Katherine E. Corcoran, Rachel E. Nagy*

Several theories suggest that religion evolved because it enhanced group cooperation; those individuals who professed a common religious belief cooperated better and therefore enhanced their individual fitness. The present experiment tested this hypothesis by asking participants to assess personality characteristics of unknown individuals who either wore a cross pendant, a symbol of Christianity, or a plain chain using the Evaluation of Others

Questionnaire. One subscale in particular assesses traits important to cooperation, the Kindness/Morality subscale. The results indicated that participants who scored high on the dogmatism subscale of the Religious Orientation Scales gave greater scores to those wearing the cross pendant on the Kindness/Morality subscale. This result is consistent with others that reported greater cooperation in economic games. However, here, we show that there does not need to be a competitive environment in order to reveal the increased assessment of kindness and morality and therefore potential for cooperation.

25. Synchronous Pregnancy: An Evolutionary Perspective

Kerry D. Worth (kerry.worth@smu.ca), Maryanne L. Fisher

The phenomenon that groups of women in close relationships appear to get pregnant simultaneously is seemingly unexplored. From an evolutionary standpoint, this synchronicity would enable women to share resources, food, and postpartum childcare. We theorized that synchronous pregnancies might be closely tied to the well-studied phenomenon of menstrual synchrony. We cite evidence from media accounts of “pregnancy pacts” in which friends deliberately attempt to have synchronous pregnancies. We also created a survey for pregnant women. The majority had either family or friends that were simultaneously pregnant prior to (79%) or after (63%) the respondent had become pregnant. Similarly, 80% of women had family or friends that had given birth in the last 12 months. While a minority of women (38%) admitted to being influenced by the pregnancy of others, most (71%) indicated that they planned on sharing parenting resources or engaging in shared parenting with women close to them.

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