

FOSSIL

Flyover-State Scientists
Integrating Evolution

Friday, August 2nd – Saturday, August 3rd, 2019

Student Union

Oklahoma State University

Stillwater, OK

Welcome!

Welcome to the FOSSIL (FlyOver State Scientists Integrating EvoLution) Conference! We're excited to have you!

Expect two days talking about exciting research, forming new collaborations, and/or learning about the value of taking an evolutionary approach for generating novel theories and testable predictions about social behavior in humans and other animals.

Thanks to our sponsors, this conference is free for students! For this, we thank the Human Behavior and Evolution Society (HBES), The President's Fund at Oklahoma State University, the OSU Dean's Office, and also OSU's Department of Psychology and chair, Dr. Thad Leffingwell!

Finally, we also thank each and every graduate student and OKState employee who helped make this happen!

- Program Committee (Jaimie Arona Krems, Jennifer Byrd-Craven, & Ashley Rankin)

Program at a glance

Friday

1:30pm	Registration Opens
3:00pm	Welcome
3:30pm	Research Talks
4:30pm	Break/Additional time for sign in
5:00pm	Research Talks
5:30pm	Collaboration Innovation Session
6:30pm	Banquet Dinner*
8:00pm	Poster Reception (ending at 10pm)*

Saturday

8:00am	Breakfast & Coffee
9:00am	Keynote: Martie Haselton, PhD.
10:00am	Coffee Break
10:15am	Research Talks
10:50am	Data Blitz Session & Short Break
11:40am	Research Talks
12:45pm	Research Talks
1:30pm	Closing Remarks & Awards Announcement

*Takes place in Starlight Terrace. All other events take place in Case Study 1.

While attending FOSSIL, please be respectful to one another. This does NOT mean that you cannot challenge one another on the scientific grounds of the research--we want you to be assertive and engaging. Rather:

- Treat all participants, FOSSIL staff, and vendors with courtesy and consideration.
- Be respectful and collaborative, critiquing ideas rather than individuals.
- Abuse, intimidation, discrimination, and sexual harassment are unacceptable. Sexual advances, requests for sexual favors, or sexually directed remarks constitute sexual harassment when such conduct (1) persists despite rejection, (2) is grossly inappropriate, or (3) is made to a subordinate who might reasonably fear that their position would be jeopardized if those advances were rejected.
- Be mindful of your surroundings and of your fellow participants, and alert a member of the FOSSIL planning committee if you need assistance or notice a dangerous situation or someone in distress (Jennifer Byrd-Craven, Jaimie Krems, and Ashley Rankin).
- Respect the rules and policies of the meeting venue, hotels, and any FOSSIL-contracted facility.

FAQs

Wifi?! There is free wifi. See posters with the log-in info or ask a volunteer.

Where can I leave my poster? You'll be able to stash your poster with the volunteers at registration or in the back of Case Study 1.

When do I set my poster up? At the start of the banquet (~6pm), please begin to set your posters up so that we can view them right at 8pm. Poster easels, boards and tacks will be there and waiting.

Where should I eat? There is a large variety of affordable food options in Stillwater and many are within walking distance of the OSU campus.

What time zone am I in? We're on CST, like Chicago.

I'm a presenter. Where do I...? We'll have a computer set up with a clicker. Our sound system is ready to go, too. *Please bring your talk on a USB* (or email it to ashley.rankin@okstate.edu).

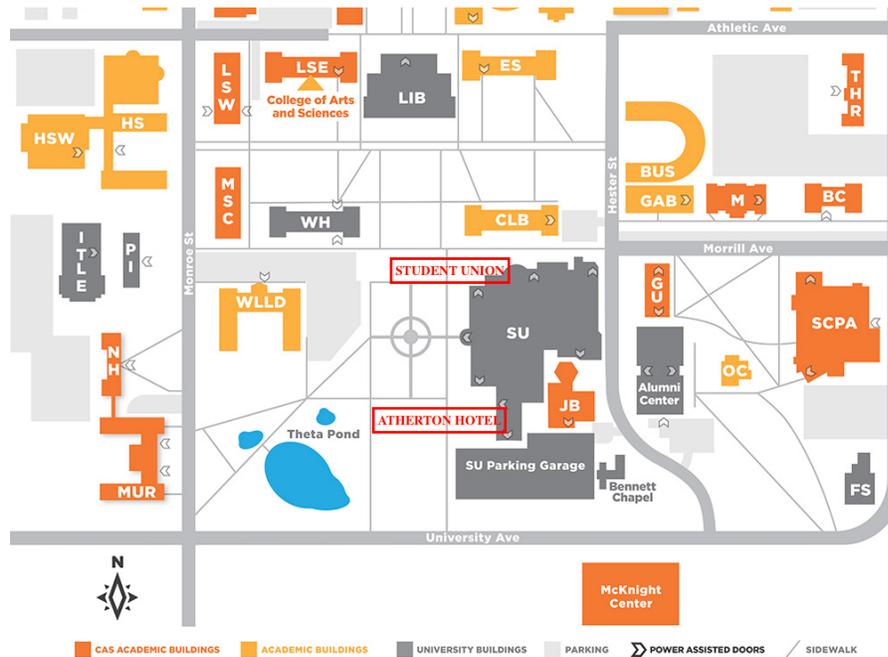
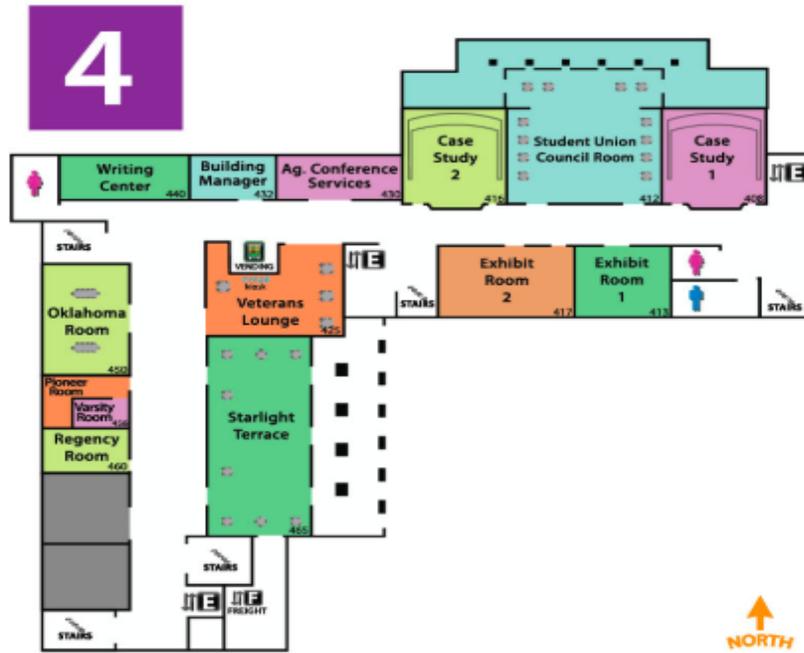
I've lost my... Check with the volunteers for lost items.

What should I wear? We recommend people dress professionally (business casual). It does get hot in Oklahoma in August and the venue is air conditioned so layers are recommended.

This is fun! Can we do it again? Can I help out next time? This will be the first of many FOSSILs to come. Please be in touch if you would like to help out in putting together next year's event (or even host it)

Maps

All official FOSSIL events will be held on the fourth floor of the Student Union (100 S Hester St, Stillwater, OK 74078). Talks will take place in Case Study 1. The banquet dinner and poster session will both take place in the Starlight Terrace. (The Atherton Hotel and its Stateroom bar are also connected to the Student Union.)



Schedule

Friday, August 2

1:30pm - 3pm	Registration	Student Union Fl. 4
3pm - 3:30pm	Welcome to FOSSIL	Case Study 1
3:30pm - 4:30pm	<p style="text-align: center;"><u>How Does the Evolved Mind Guide Social Behavior</u> “Ecology Stereotypes in the Justice System” <i>(Dr. Keelah Williams, Hamilton College)</i></p> <p style="text-align: center;">“Using the Affordance Management Approach to Explore the Influence of Fundamental Motives on Stereotyping and Prejudice” <i>(Dr. Corey Cook, Pacific Lutheran University)</i></p> <p style="text-align: center;">“A functional affordance-management approach to stigma-by- association: Does stigma transfer depend on type of stigma?” <i>(Jarrod Bock, Oklahoma State University)</i></p> <p style="text-align: center;">“Exposure to a Sex-specific Stressor Mitigates Sex Differences in Stress-induced Eating” <i>(Nikki Clauss, Oklahoma State University)</i></p>	Case Study 1
4:30pm - 5pm	Coffee Break, Additional Registration	
5pm-5:30pm	<p style="text-align: center;"><u>New Perspectives on Error Management Theory</u> “Can Error Management Theory Be Used as an Intervention?” <i>(James Moran, Tulane University)</i></p> <p style="text-align: center;">“On Hits and Being Hit On: Error Management, Signal Detection Theory, and Sexual Communication” <i>(Jordann Brandner, Kansas State University)</i></p>	Case Study 1
5:30pm-6:30pm	<u>Collaboration Innovation Session</u> CI #1: Dr. Jennifer Byrd-Craven CI #2: Dr. Eric Pedersen CI #3: Dr. Sarah Hill	Case Study 1
6:30pm-8:00pm	Dinner	Starlight
8pm-10pm	Poster Session	Starlight

Saturday, August 3

8am	Breakfast	Case Study 1
9am-10am	<p style="text-align: center;"><u>KEYNOTE</u></p> <p style="text-align: center;">Dr. Martie Haselton</p> <p style="text-align: center;"><i>(University of California, Los Angeles)</i></p>	Case Study 1
10:15-10:45am	<p style="text-align: center;"><u>Functional Emotions</u></p> <p style="text-align: center;">“Fitness Interdependence and Emotions of Status Conferral” <i>(Patrick Durkee, University of Texas at Austin)</i></p> <p style="text-align: center;">“Six Dimensions of Sexual Disgust” <i>(Courtney Crosby, University of Texas at Austin)</i></p>	Case Study 1
10:50-11:40am	<p style="text-align: center;"><u>Blitzes</u></p> <p style="text-align: center;">“Virtue-signaling? A Function of Condemnatory Derogation” <i>(Dr. Jaimie Arona Krems, Oklahoma State University)</i></p> <p style="text-align: center;">“Spending Dollars on Dimes: Gift Giving Differences in In-Pair and Extra-Pair Relationships” <i>(Amanda Kim, Hamilton College)</i></p> <p style="text-align: center;">“Women’s Aggression Toward Rivals With Invested Fathers And High Sociosexuality” <i>(Dr. Ashalee Hurst, Northeastern State University)</i></p> <p style="text-align: center;">“Hormonal Contraceptive Use Predicts Decreased Performance Perseverance on Simple and Cognitively Taxing Tasks” <i>(Summer Mengelkoch, Texas Christian University)</i></p> <p style="text-align: center;">“Gluttons for Punishment? Experimentally Induced Hunger Unexpectedly Reduces Harshness of Suggested Punishments.” <i>(Riley Loria, Tulane University)</i></p> <p style="text-align: center;">“The Role of Parents and Emotion Regulation Strategies on Cortisol Stress Reactivity to an Experimental Stress Task” <i>(Erin Wood, Oklahoma State University)</i></p> <p style="text-align: center;">“A Comparative Evolutionary Framework for Understanding Long-term Memory” <i>(Dr. Jason Bruck, Oklahoma State University)</i></p> <p style="text-align: center;">“Noise and Cognition in Dolphins: A Deeper Look into</p>	Case Study 1

	<p style="text-align: center;">Anthropogenic Effects on Marine Mammals” <i>(Paige Stevens, Oklahoma State University)</i></p>	
11:40am-12:40pm	<p style="text-align: center;"><u>Buddies, Bayes, and Biology</u> “Epigenetic Effects of Chronic Paternal Predation Risk on Offspring Phenotypes” <i>(Kelsey Brass, Oklahoma State University)</i></p> <p style="text-align: center;">“Social Network Structure Buffers Forgetting in Cooperative Games” <i>(Dr. Jeffrey Stevens, University of Nebraska-Lincoln)</i></p> <p style="text-align: center;">“The Organizational Species Concept: Development and Application of an Approach to Taxonomic Classification of Firms” <i>(Jason Entsminger, McQuinn Center for Entrepreneurial Leadership, University of Missouri)</i></p> <p style="text-align: center;">“Bayesian Reasoning Is Associated with Numerical and Visuospatial Abilities, Consistent with Evolutionary Views, rather than Ability to Model Nested Sets” <i>(Dr. Gary Brase, Kansas State University)</i></p>	Case Study 1
12:45pm-1:30pm	<p style="text-align: center;"><u>Female Sociality</u> “Necessities and Luxuries in Social Foraging: Evolved Functions of Relationships Are Revealed by Batterns of Investment Across Social Contexts” <i>(Ashley Rankin, Oklahoma State University)</i></p> <p style="text-align: center;">“Informational Warfare” <i>(Dr. Nicole Hess, Washington State University Anthropology)</i></p> <p style="text-align: center;">“Female Friendship Preferences and Sexual Inferences: Women’s Perceptions of Same-Sex Others who Prefer Male Friends” <i>(Hannah Bradshaw, Texas Christian University)</i></p>	Case Study 1
1:30pm-2:00pm	Closing Remarks & Awards	Case Study 1

Abstracts (alphabetically by author last name)

Research Talks

“A functional affordance-management approach to stigma-by-association: Does stigma transfer depend on type of stigma?”

Jarrod Bock (Oklahoma State University) & Jaimie Arona Krems (Oklahoma State University)

Social psychological descriptions of stigma-by-association suggest that, because we devalue and/or dislike stigmatized people, we will devalue and/or dislike their traditionally non-stigmatized associates. However, functional approaches to stigma imply that people hold qualitatively distinct prejudices—rather than generalized devaluation or dislike—which are underlain by the qualitatively distinct threats that stigmatized people are perceived to afford. For example, whereas we might equally stigmatize them, we may perceive Black men as threats to physical safety and religious fundamentalists as threats to freedoms. We ask: If different stigmas represent different, specific threats, (1) which stigmas are transferred and (2) do all stigmas transfer equally? Across three experiments, participants read one of several vignettes describing an average White male (Brad), Brad and a similar friend (control), or Brad and a stigmatized friend (e.g., African-American male, religious fundamentalist), reporting the extent to which Brad—and/or his friend—evoked various threats and affective reactions. We investigated the prediction that, whereas, (1) the generalized stigma might be transferred to Brad when he has a stigmatized friend, (2) the specific stigmas transferred to Brad—and their affective reactions (e.g., fear, anger)—will vary as a function of the specific threat Brad’s friend is perceived to afford.

“Female Friendship Preferences and Sexual Inferences: Women’s Perceptions of Same-Sex Others who Prefer Male Friends”

Hannah K. Bradshaw (Texas Christian University), Laureon Watson (Western Illinois University), & Sarah E. Hill (Texas Christian University)

Although women typically prefer forming friendships with other women, cross-sex friendships are not uncommon. Indeed, forming opposite-sex friendships can benefit women in seeking short- or long-term romantic relationships. As such, a woman’s preference for opposite- (vs. same-) sex friendships may provide important cues of her mating strategy and may have consequences for her interpersonal relationships with other women, a possibility that the current research examined. Results demonstrate that women ($N = 80$) perceive same-sex targets that prefer male (vs. female) friends to not only follow a more unrestricted mating strategy ($d = .86$), but to also be less trustworthy ($d = .89$). Moreover, women report lower desire to affiliate with women who prefer male over female friends ($d = .55$). Additional analyses provide evidence of serial mediation, where women perceive same-sex targets preferring male (vs. female) friends to have a more unrestricted mating strategy, which predicts decreased trustworthiness, which in turn predicts decreased desire to affiliate with these targets. Together, these results suggest women who prefer to be friends with men are perceived negatively by their same-sex peers and sheds light on the potential interpersonal consequences such preferences can carry.

“On Hits and Being Hit On: Error Management, Signal Detection Theory, and Sexual Communication”

Jordann L. Brandner (Kansas State University) & Gary L. Brase (Kansas State University)

Male sexual overperception bias, the tendency for men to misperceive women’s sexual interest, has increasingly been explained by Error Management Theory (EMT) as a bias that minimizes the evolutionarily costly error of missed mating opportunities and maximizes correct identification of interested females, even though it increases lower-cost errors of falsely perceiving sexual interest. EMT analyses rely on difference scores, however, which can be problematic if male and female communication signals are of different strengths. EMT also includes no measure of sensitivity (ability to distinguish signals from non-signals). Signal Detection Theory (SDT) can account for these limitations, while still calculating a bias measure. The present research examines communication of sexual intent using both EMT and SDT methods. EMT analysis replicates prior results; although with a conservative bias overall, men are relatively over perceptive. SDT analysis confirms the overall conservative bias but indicates that men were more conservative than women, contrary to EMT. SDT analysis also shows that both sexes have high sensitivity, resulting in excellent accuracy and low error rates, maximizing evolutionary benefits and minimizing evolutionarily costly errors. These patterns of results provide more extensive information about sexual communication and perception, and indicate that traditional EMT analyses may need to be reconsidered.

“Bayesian reasoning is associated with numerical and visuospatial abilities, consistent with evolutionary views, rather than ability to model nested sets”

Dr. Gary L. Brase (Kansas State University)

Several specific presentation formats can help people with Bayesian reasoning, but evolutionary / ecological rationality and nested set views both claim explanations for those results. The present research turns to individual differences that can account for additional degrees of reasoning performance variability, which provide different predictions for these theoretical views. Two experiments found that Bayesian reasoning was better predicted by measures of numerical literacy and visuospatial ability, as predicted by evolutionary theories, rather than by measures of general nested sets modeling abilities. A third experiment found that working memory also works well as a predictor of reasoning performance, in addition to numerical literacy and visuospatial ability. Thus, it is not that general abilities do not constrain cognitive performance; just that a general nested sets ability does not play an important role in Bayesian reasoning. We are now beginning to understand not only how to build Bayesian reasoning tasks, but also how to build Bayesian reasoners.

“Epigenetic effects of chronic paternal predation risk on offspring phenotypes”

Kelsey Brass (Oklahoma State University), Nathan Herndon (Oklahoma State University), & Polly Campbell (Oklahoma State University, University of California Riverside)

In stable environments, parents able to transmit information such as predation risk should have offspring that are pre-adapted to the environment they will encounter as adults. While intergenerational epigenetic transmission of paternal experience has been demonstrated in mammals, whether paternal perception of predation risk can alter offspring phenotypes has not been investigated. We exposed male mice to a predator odor (2-4-5-trimethylthiazoline, TMT) and measured offspring activity, anxiety-like behavior and neural phenotypes in genes key to mediating the stress response (dopamine and corticosteroid receptors, Bdnf). We predicted that offspring of males exposed to TMT would exhibit 1) decreased activity, 2) increased anxiety-like behaviors, and 3) neural phenotypes consistent with a more efficient stress response relative to controls because these phenotypes are analogous to anti-predator behaviors in the wild. We found that offspring of TMT-exposed males tend to be 1) more active, 2) exhibit fewer anxiety-like behaviors, and 3) show decreased Bdnf expression in the prefrontal cortex relative to controls. These results suggest that fathers exposed to predation threat produce offspring that are bolder and, potentially, more likely to flee than freeze when predators are present. Importantly, this study provides evidence that ecologically relevant paternal experience can influence offspring phenotypes.

“Exposure to a sex-specific stressor mitigates sex differences in stress-induced eating”

Nikki Clauss (Oklahoma State University) & Jennifer Byrd-Craven (Oklahoma State University)

The current study examined sex-differences in stress-induced eating. Participants (n = 168; 54.2% female) were randomly assigned to one of three experimental groups: achievement stress, social rejection stress, and a control condition. Stress was measured with cortisol and respiratory sinus arrhythmia (RSA) reactivity. Post stressor food consumption was measured by weighing several categories of food (highly palatable (sweet, salty), nutritious (sweet, non-sweet), and bland) before and after the participant was introduced to the food items. Males demonstrated greater parasympathetic withdrawal and cortisol reactivity in the achievement condition than females; whereas females demonstrated greater parasympathetic withdrawal and cortisol reactivity in the social rejection condition than males. There were no significant differences in parasympathetic withdrawal between males and females in the control condition. Post-stressor highly palatable food consumption followed this trend. Results challenge the prevailing notion that stress-induced eating of hyper palatable food is mainly found among women by finding that males also engage in such behavior if their experience leads to an adequate stress response.

“Using the Affordance Management Approach to Explore the Influence of Fundamental Motives on Stereotyping and Prejudice”

Corey L. Cook (Pacific Lutheran University) & Angela G. Pirlott (Saint Xavier University)

I will present an affordance management approach to understanding the functional applications of active fundamental motives on stereotype perceptions and prejudiced responses. This theoretical approach integrates the sociofunctional, threat-based model of stereotype perception (Cottrell & Neuberg, 2005) and the fundamental motives perspective on evolved goal-

motivated behavior (e.g., Kenrick et al., 2010). The approach suggests that prejudices arise as specific emotional reactions to stereotypically perceived threats that engage adaptive behavioral responses to mitigate such threats. Stereotypes relevant to fundamental human motives—finding and retaining mates, parenting, avoiding disease, affiliating socially, protecting oneself, and acquiring and maintaining status—should engage specific emotional and behavioral reactions to act strategically upon stereotypically perceived threats and opportunities (i.e., affordances). I will argue that the relevance of threat and opportunity stereotypes depends upon the perceiver’s currently active fundamental motives. Thus, fundamental motives are the primary organizers and drivers of perceptions of stigmatized/stereotyped target characteristics. I will present data to illustrate this model, specifically by applying it to understand instances of prejudice toward non-heterosexual individuals (i.e., sexual prejudice), along with data on prejudices toward immigrants and Muslims.

“Six Dimensions of Sexual Disgust”

Courtney L. Crosby (The University of Texas at Austin), Patrick K. Durkee (The University of Texas at Austin), Cindy M. Meston (The University of Texas at Austin), & David M. Buss (The University of Texas at Austin)

Sexual disgust is an emotion hypothesized to deter individuals from engaging in sexual activities that are probabilistically detrimental to fitness. Existing measures of sexual disgust are limited in treating sexual disgust as a unitary construct, potentially missing its multidimensional nature. We conducted three studies to address these limitations. In a preliminary study, women and men (N = 204) nominated over 2,300 unique items that they considered sexually disgusting across a variety of different contexts. Study 1 (N = 331) identified the factor structure of the 50 most frequently nominated items and established construct validity with significant associations between sexual disgust and major dimensions of personality. Correlations between the Three Domains of Disgust Scale and our six-factor measure of sexual disgust established convergent validity. Study 2 (N = 319) confirmed the factor structure found in Study 1, established further convergent validity and examined sex differences and other individual differences in sexual disgust. Discussion focuses on the theoretical importance and psychometric validity of the Sexual Disgust Inventory--a new six-factor measure of sexual disgust.

“Fitness Interdependence and Emotions of Status Conferral”

Patrick Durkee (University of Texas at Austin) & David Buss (University of Texas at Austin)

Throughout human evolution, changes in others’ status would have reliably altered the fitness-consequences of potential interpersonal strategies in future interactions. Moreover, different relationships—friends, family, acquaintances, and enemies—are characterized by partially unique degrees of fitness interdependence, and different potential interpersonal strategies. The successfulness of a given interpersonal strategy depends on both relative status and fitness interdependence. For example, the fitness-consequences of an enemy’s status increase are different than a friend’s status increase—and the adaptive value of potential behavioral

strategies differs as well. A task analysis suggests that this complex coordination may require partially distinct emotional programs. In this study, we use the concept of fitness interdependence to map five emotions of status conferral (i.e., respect, admiration, contempt, envy, pity) by asking participants to forecast the degree to which they would feel each emotion in response to witnessing various status-affecting personal characteristics in either a friend, acquaintance, or enemy. Using multilevel modeling, we show that different emotional programs and behavioral strategies are activated by different levels of status-impacts and fitness interdependence. Discussion focuses on the utility of this novel approach for revealing the specific evolved design of social emotions, as well as future directions for understanding folk-lexical emotion terms.

“The Organizational Species Concept: Development and Application of an Approach to Taxonomic Classification of Firms”

Jason Scott Entsminger (McQuinn Center for Entrepreneurial Leadership, University of Missouri) & Randall E. Westgren (McQuinn Center for Entrepreneurial Leadership, University of Missouri)

Classification permits inference, explanation, generalization, and prediction about things in the world (Boyd 1999; Ereshefsky and Reydon 2015) and has played a pivotal role in the development of evolutionary thought where groupings are hierarchical orderings such that membership has predictive capabilities at some given level as well as explains origins or relations among kinds. (Bailey, 1994; Carper & Snizek, 1980; McKelvey, 1982; Rich, 1992) Early works employ allegories to the biological species as the central unit of analysis for categorization and placement in evolutionary histories, but lacked operationalized approaches. In this paper we integrate the concept of natural kinds taken from philosophy of science with allegory to the ecological niche (see Cattani, Porac, & Thomas, 2017; Popielarz & Neal, 2007; Astley, 1985; Astley & Van de Ven, 1983) to operationalize the species concept in a manner which accommodates the interests of an array of social sciences concerned with organizational forms and with making inferences about the structures, behaviors, resource allocation decisions, and other characteristics of firms. Applying multivariate cluster analysis on a unique national data set, we apply this concept to an emergent organizational form in food systems, the “food hub”, as a proof of concept.

“Informational Warfare”

Dr. Nicole Hess (Washington State University Anthropology)

When success in physical aggression increases access to food, territory, and mates, coalitions have an advantage over individuals. Evolutionists have explored how this may have shaped coalitional psychology in human males. Among non-human primates, too, females often form strong bonds and cooperate in physical contests with other females to access to resources. Human females, however, rarely engage in coordinated physical aggression. Nonetheless, women and girls do exhibit enduring, coalitional bonds, i.e., ‘friendships.’ I propose that coalitional relationships among human females—like those among human males and those among female nonhuman primates—serve aggressive functions in the realm of reputational

competition. Informational warfare—the cooperative collection, analysis, and dissemination of reputational information (i.e., 'gossiping')—may be a strategy for manipulating reputations, thereby increasing access to contested resources. This talk will briefly review: the primate socioecological model and how it relates to humans, research suggesting that good reputations are associated with resource acquisition, informational warfare theory, and hypotheses for potential sex differences in informational warfare. Results will be presented from US college sororities, hunter-gatherers and horticulturalists from the Central African Republic, and online samples. Future studies (in need of development) may explore the process of coordinated gossip analysis in a lab setting.

“Can Error Management Theory Be Used as an Intervention?”

James B. Moran (Tulane University)

Error management theory suggests that men hold a cognitive bias, which misinterprets women's sexual intent (Haselton & Buss, 2000). This conference presentation will provide evidence that educating men of this bias, might be more beneficial than the standard Power Dominance perspective, which states men assault women because of their status in society. Study 1 (N=58) found that men learned more and trusted the information more compared to the PD condition. Study 2, provided men with an ambiguous vignette of a man and woman meeting at a bar. The men (N=148) then had to perceive the woman in the vignette's sexual desire. Afterward, they were randomized to be in an EMT education condition, PD education condition, or control. Men who were in the EMT condition had a lower overestimation of sexual intent. A third study is currently underway, and data will be collected and analyzed before the conference. Men have provided their overestimation of sexual intent, and attitudes towards women measures in the beginning of the semester. They then are randomized to be in an education condition of EMT or PD. They are then followed a week after to see how long the educational effects last.

“Necessities and luxuries in social foraging: Evolved functions of relationships are revealed by patterns of investment across social contexts”

Ashley Rankin (Oklahoma State University), Aaron Lukaszewski (California State University, Fullerton), & Jennifer Byrd-Craven (Oklahoma State University)

Evolutionary models of sociality posit that specific types of interpersonal relationships evolved to serve various functions. Although much research has focused on the traits preferred in social partners (e.g., mates), less is known about the mechanisms that regulate differential investment across distinct types of relationships (e.g., mates vs close friends). The present studies introduce a new way to use Li, Bailey, Kenrick, and Linsenmeier (2002)'s budget allocation paradigm, which we employed to examine how people invest their personal resources in social partners across relationship domains (long-term mates, close friends, friends, social allies, short-term mates, and acquaintances). In addition, we test whether patterns of investment shift across social contexts that modulate the functional value of benefits associated with each type of relationship (out-group threat, status seeking, parenthood, social exclusion, illness, and injury). Across four studies, assessing 995 participants, it was found that (1) long-term mates

and close friends are generally treated as necessities; (2) additional close friends, friends, and strategic associates are typically treated as luxuries; and (3) patterns of investment exhibit adaptive shifts across social contexts (e.g., people up-regulate investment in strategic associates when seeking status, but invest more in close friends during times of personal need).

“Social network structure buffers forgetting in cooperative games”

Jeffrey R. Stevens (University of Nebraska-Lincoln), Jan K. Woike (Max Planck Institute for Human Development), Lael J. Schooler (Syracuse University), Stefan Lindner (Max Planck Institute for Human Development), & Thorsten Pachur (Max Planck Institute for Human Development)

Models of cooperation often assume that individuals interact equally frequently with all network members and have perfect memory for partners' past actions. We examine how skewed contact patterns influence cooperation rates and whether skewed contact patterns can counteract the decrease in cooperation caused by forgetting. We investigate these issues using evolutionary simulations of repeated prisoner's dilemma games that vary the agents' contact patterns and forgetting rates. We find that skewed contact patterns foster cooperation by buffering the detrimental effects of forgetting. Although cognitive limitations may constrain the evolution of cooperation, social network structure can counteract some of these constraints. This presentation was published as Stevens, J.R., Woike, J.K., Schooler, L.J., Lindner, S. & Pachur, T. (2018). Social contact patterns can buffer costs of forgetting in the evolution of cooperation. *Proceedings of the Royal Society of London, Series B*, 285(1880), 20180407.

“Ecology Stereotypes in the Justice System”

Dr. Keelah Williams (Hamilton College)

Black individuals in America are more likely to be stopped and frisked, arrested, convicted of crime, and receive harsher sentences than their White counterparts. A common explanation offered for these findings is the stereotypic association between race and criminality. But why might this association exist in the first place? In a series of four studies, I demonstrate that many race stereotypes about criminal engagement and recidivism actually reflect inferences of the target's presumed home environment. In the United States, race is somewhat confounded with ecology: Whites are more likely to live in resource-sufficient and stable ecologies, whereas Blacks are more likely to live in relatively resource-poor and unpredictable ecologies. As a result, American perceivers use race as a heuristic cue to ecology, stereotyping Blacks as more likely than Whites to exhibit traits associated with individuals living in harsh and unpredictable environments (such as criminality). When more proximate cues to ecology are presented, 'race' stereotypes about propensity for violence, aggression, criminal engagement, and recidivism all disappear. These findings suggest a potentially novel approach to reducing discriminatory outcomes in the legal system.

Data Blitzes

“A Comparative Evolutionary Framework for Understanding Long-term Memory”

Jason Bruck, (Oklahoma State University)

For years, the social intelligence hypothesis has been explained proximately by Machiavellian Intelligence: the idea that animals have gotten more “intelligent” over time to outcompete conspecifics through politics, trickery and deceit. In primates, this explanation might work well as a mechanism that explains fitness benefits. However, upon a more comparative analysis, this rationale for the evolution of versatile intelligence seems lacking. I will explore a more parsimonious and universal mechanism to underpin the social intelligence hypothesis and suggest ideas for future comparative research along with relevant predictions

“Women’s Aggression Toward Rivals With Invested Fathers And High Sociosexuality”

Ashalee C. Hurst (Northeastern State University), Mindi C. Price (Mindi C. Price), & Jessica L. Alquist (Texas Tech University)

Across 3 studies, women aggressed more against rivals with invested fathers than rivals with non-invested fathers as perceptions of the rival’s sociosexuality increased. Women with non-invested fathers have more sexually permissive attitudes than women with invested fathers. While sexual permissiveness increases women’s short-term mate value, sexual conservativeness increases women’s long-term mate value. Because paternal investment is associated with sexual permissiveness, which is associated with women’s mate value, a rival’s paternal investment may influence women’s aggression. If women are threatened by a rival’s short-term mate value, aggression should increase as rival women’s paternal investment decreases. If women are threatened by a rival’s long-term mate value, women’s aggression should increase as rival women’s paternal investment increases. In Study 1, aggression was highest toward rivals with invested fathers as perceptions of the rival’s sociosexuality increased. In Study 2, participants with invested fathers reported more instances of other women aggressing against them as their sociosexuality increased. In Study 3, aggression was highest toward White rivals with invested fathers as perceptions of their sociosexuality increased. Results suggest that women are particularly vigilant toward rivals who could be perceived as highly desirable as both a long-term mate (high paternal investment) and a short-term mate (high sociosexuality).

“Spending Dollars on Dimes: Gift Giving Differences in In-Pair and Extra-Pair Relationships”

Amanda Kim (Hamilton College) & Keelah Williams (Hamilton College)

A common trope in popular media is the notion that men who are having extramarital affairs tend to spend more lavishly on their mistress than their wife. However, empirical literature supporting this phenomenon is limited. From an evolutionary perspective, a male’s ability to provide resources is a highly desirable trait. In addition, the risks of engaging in an extra-pair relationship are greater for women than for men. This suggests that mistresses may place

higher value on resource exchange than wives, and men's behavior may be attuned to this reality. The current research explored men and women's gift-giving preferences for extra-pair and in-pair relationships. Participants were presented with a series of vignettes manipulating relationship type (in-pair or extra-pair) and stage (initiation or maintenance). Contrary to predictions, results revealed no significant differences between men and women's spending preferences, and significantly lower spending on extra-pair as compared to in-pair relationships. This suggests that gift-giving may help to signal commitment rather than serving as enticement. Future research will explore how mate value influences gift-giving behavior at different relationship stages.

“Condemnatory derogation and its effects of reputation: Evidence for virtue signaling?”

Jaimie Arona Krems (Oklahoma State University) & Nicole Hess (Washington State University)

Media coverage is saturated with people condemning the retention—or removal—of long-standing statues (e.g., confederate soldier Silent Sam, singer Kate Smith), with students condemning the retention—or removal—academics (e.g., Camille Paglia, Harvard dean Ronald Sullivan Jr.). Today, condemnatory derogation is pervasive. But what is its function? We draw on evolutionary logic to propose that one function is to bolster condemners' reputations. Two studies investigated reactions to real-world controversies. Each experiment had three conditions—two employing condemnatory derogation (condemning a potentially racist statue vs. knee-jerk reactions to remove it; condemning a Harvard dean on the Harvey Weinstein defense vs. reactions to fire him for being on that defense), and one complexity condition, wherein points from both sides were reiterated along with a statement that the situation was complex. People viewed actors condemning the statue or the dean as less racist and more supportive of gender equality than actors condemning reactions to the statue or dean, and highly liberal people additionally viewed those actors as less racist and more supportive of gender equality than even people making a complexity argument. Findings suggest condemnatory derogation may be a deeply rational tactic and akin to virtue signaling.

“Gluttons for Punishment? Experimentally Induced Hunger Unexpectedly Reduces Harshness of Suggested Punishments.”

Riley N. Loria (Tulane University), Nicholas Kerry (Tulane University), & Damian R. Murray (Tulane University)

Many societies aspire to objective judgment in criminal justice. However, humans are not impartial, and ostensibly irrelevant factors may influence sentencing decisions. Indeed, there is evidence that visceral states such as hunger could play a role in judicial decision-making processes, with some research suggesting that hunger leads to harsher sentencing. Exploratory findings based on self-reports from four pilot studies also suggested a positive relationship between hunger and moral judgment. The main study examined the relationship of hunger with judicial sentencing and moral judgments in a controlled experiment. Hunger was manipulated by asking 226 undergraduates not to eat for at least four hours before the study. Participants in the satiated condition received a snack before taking questionnaires, while those in the hungry

condition were given cookies after the questionnaires. We predicted hungrier individuals would be in favor of harsher punishments and would express stronger moral judgments. Contrary to predictions, participants in the hungry condition recommended more lenient punishments, while the manipulation had no effect on moral judgment. We discuss possible explanations for these findings. While unexpected, these results provide tentative evidence that hunger can influence punishment and sentencing decisions.

“Hormonal Contraceptive Use Predicts Decreased Performance Perseverance on Simple and Cognitively Taxing Tasks”

Summer Mengelkoch (Texas Christian University), Hannah K. Bradshaw (Texas Christian University), & Sarah E. Hill (Texas Christian University)

A growing body of research suggests that hormonal contraceptive (HC) use may be associated with important structural and functional differences in women’s brains that could contribute to observed differences in perseverance and task performance in women. Here, we sought to extend this research by examining the relationship between HC use and college-aged women’s perseverance (i.e., time spent) and task performance on tasks requiring the ability to self-regulate performance. Across two studies, we find that, compared to naturally-cycling women, women using HCs display less perseverance on both simple (i.e., a spot-the-difference game) and cognitively taxing (i.e., GRE quantitative problems) tasks. Moreover, these differences in perseverance were found to drive performance decrements on most tasks, with women taking HCs performing worse because they spent less time on the tasks. By demonstrating how HC use may influence perseverance and thereby performance, these results contribute to a growing body of research examining the implications of HC use on cognition, learning, and memory.

“The Role of Parents and Emotion Regulation Strategies on Cortisol Stress Reactivity to an Experimental Stress Task”

Erin Wood (Oklahoma State University) & Shelia Kennison (Oklahoma State University)

The study was designed to examine how early life relationship with parents and emotion regulation strategies could explain individual differences in cortisol response ("responder" v "non-responder") to an experimental stress task. Participants (N = 150; 78 male) came to the lab between 1230h – 1500h and responded to questionnaires regarding to relationship with parents (Skinner et al., 2005), emotion regulation (Gross & John, 2002) prior to being separated into experimental and control groups to engage in the Trier Social Stress Task (TST: Kirschbaum et al., 1993). Salivary cortisol samples were collected immediately before, and 20 and 40 minutes after the TSST to assess how early life relationships with parents and emotion regulation can explain individual differences in cortisol response to stressor. Preliminary findings suggest that, that increases or decreases in salivary cortisol after exposure to the stressor for individuals in the experimental group was largely influenced by self-reported negative relationships with parents and emotion regulation strategies. Further, analyses examining differences in cortisol response to stressor based on sex indicate that the influence of parenting style differs based on participant sex.

“Noise and cognition in dolphins: A deeper look into anthropogenic effects on marine mammals”

Paige E. Stevens (Oklahoma State University), Madison Tryzbiak (Oklahoma State University), Emily B. West (Oklahoma State University), & Jason N. Bruck (Oklahoma State University)

Human generated noise pollution is an increasing threat to marine mammals, yet the extent of anthropogenic sound pollution’s effects on cognition are poorly understood. Dolphins use cognitive skills to hunt, maintain social groups and communicate. For our study, we measured attention in bottlenose dolphins, *Tursiops truncatus*, during acoustic playback sessions at multiple human-care facilities, both inland (where the animals experience no boat or SONAR sounds), and coastal (where the animals experience regular anthropogenic noise from cruise ships and personal water crafts). During playback sessions, the duration of dolphin look responses to control, cruise ship, jet ski, and SONAR noises projected out of an underwater speaker were taken as a dependent measurement. The results were compared between facility types as well as across individual, sex and noise-type. We propose a re-evaluation of expectations around which noises are acceptable when managing wild marine mammal populations as well as discuss broader implications for expectations related to habituation and sensitization in cetaceans.

Posters

“Father figure: the role of parental involvement in child’s personality”

Chynna Frizell (Missouri State University), Amber Massey-Abernathy (Missouri State University), & CaSandra Stanbrough (Missouri State University)

Parental involvement through varying levels of responsiveness and demandingness are significant predictors in child outcomes (Belsky, Steinberg, & Draper, 1991). Mothers’ impact on child development has been the focus of research; however, fathers may serve as a moral guide and predictor of social climate due to the variable and facilitative nature of their investment (Massey-Abernathy & Byrd-Craven, 2015). The current study examined the perception of parental support (primarily the father) in relation to conscientiousness and a Machiavellian world view. Results revealed that a perceived negative father, as well as the absence of a perceived warm father, was related to an increased Machiavellian world view in the child. Conversely, the perception of a warm father was related to the child’s increased level of conscientiousness. A perceived negative mother was related to the child’s decreased level of conscientiousness. Results suggest that the father’s parenting style may impact the child’s social cognitive style relating to social power and successful strategies for gaining and maintaining social resources.

“Egalitarianism in Women and Attraction to Formidable Physical Characteristics”

Ray Garza (Oklahoma State University), Annie Sands (Oklahoma State University), Montrey Bond (Oklahoma State University), Lindsay Ashlynn Owens (Oklahoma State University), & Jennifer Byrd-Craven (Oklahoma State University)

The social bargaining model suggests that men who display formidable characteristics are negatively associated with egalitarianism. Past research has shown that less-egalitarian men display physical traits known for their formidability (i.e., grip strength, bicep circumference, and low WCRs), however, what is not known is how does egalitarianism function in women's mate preferences. The current study used an eye tracking paradigm in determining women's egalitarian attitudes and preferences to formidable men. Women (N = 95) rated men with low waist to chest ratios as less egalitarian and more attractive. Interestingly, regardless of WCR, women who were more conservative rated men as attractive overall. Eye movement data showed that women found the face region salient upon early stages of processing (i.e., first fixation duration) and focused most of their visual attention to the midriff region in the late (i.e., gaze) stages of processing. Less egalitarian women spent more time viewing men with low WCRs supporting a modified version of the social bargaining model in mate preferences. The findings from the current study suggest physical characteristics associated with formidability predict attraction, and visual attention to formidable features are influenced by egalitarianism.

“Having help as a parent helps you parent: Examining longitudinal alloparental support and developmental outcomes”

Erin Harrington (Oklahoma State University), Nikki Clauss (Oklahoma State University), Ashley Rankin (Oklahoma State University), & Jennifer Byrd-Craven (Oklahoma State University)

Alloparental support leads to better health outcomes of infants (Hrdy, 2011; Johnson, et al., 2000) and can increase infant survival (Fox, et al., 2010; Kaplan, et al., 2000). The current study examined longitudinal reports of alloparental support and their influence on features related to infant development, such as parent attachment styles and infant's biobehavioral responses. Participants were recruited when the mother was between 28- to 36-weeks of gestation. In addition to completing monthly online questionnaires (e.g., alloparental support questionnaire), families also completed an in-home visit when their infant was 4-months old that included semi-structured interactive tasks and the collection of saliva for subsequent analysis of cortisol. Results revealed that alloparental support was significantly related to parents' attachment styles. Specifically, mothers were less likely to report having a preoccupied attachment style and fathers were more likely to report a secure attachment style with greater levels of alloparental support. Additionally, infants exhibited less stress-responsivity to strangers across the duration of the 4-month home visit when mothers had greater levels of alloparental support. In sum, parental attachment styles appear to be associated with the extent of alloparental support, and alloparental support appears to further influence infant stress responsivity in novel situations.

“Women's Fear of Rape and True Crime Consumption”

Rachel James (Oakland University) & Melissa M. McDonald (Oakland University)

Research suggests that women have an evolved psychological system for avoiding rape, and that this system is sensitive to inputs that increase the likelihood of rape, or the reproductive costs of rape (e.g., mate value is a positive predictor of women's fear of rape when women are at high conception risk). Fear of rape (FOR) is argued to be the emotional output of this system,

functioning as a behavioral precursor to defensive vigilance. Here we examine whether women's true crime media consumption may be a mechanism for defensive vigilance, such that women consume true crime media in order to learn strategies to avoid being raped, and that such behavior would be enhanced among with women with a heightened FOR. Our current research (in progress) will examine associations between women's FOR and their interest in true crime, as well as their motivations for consuming true crime. Additionally, we will examine the test-retest reliability of women's FOR, using the Fear of Rape Scale (Senn & Dzinis, 1996), in order to improve our understanding of the temporal stability of the construct. The data for this research is still being collected.

“The Relationship between Dual Strategies Theory and Envy”

Jose Leon Martinez (Florida State University), Connor Hasty (Florida State University), & Jon Maner, Ph.D. (Florida State University)

Dominance (the use of coercion) and prestige (the use of respect) reflect two main ways in which people gain social rank. Here we examined the relationship between these strategies and feelings of envy in the context of upward social comparison. We predicted that whereas prestige would be related to benign envy (feelings of admiration and desire for self-improvement), dominance would be related to malicious envy (desire to lower a superior's rank). Participants ($n=114$) came into a laboratory setting where they anticipated participating in a group activity in which one group member would be selected as the leader. All participants responded to individual difference measures of dominance and prestige and were then assigned to a subordinate role. They then viewed a pre-recorded video of a person (ostensibly) selected as leader. Participants then responded to measures of benign and malicious envy. Findings indicated that, in line with predictions, benign envy was positively correlated with prestige, whereas malicious envy was positively correlated with dominance. Dominance (but not prestige) was also correlated with participants viewing the leader as undeserving of the leadership role, and attempting to remove the leader from the leadership role.

“Emotions that track loss of status in others”

Maria Mohamed (University of Texas at Austin), Patrick Durkee (University of Texas at Austin), & David Buss (University of Texas at Austin)

Recent theories have detailed the role of “pride” and “shame” in tracking one's own status. However, little empirical work has examined status-tracking emotions from the perspective of a bystander witnessing status gains and losses in others. We hypothesized that if someone experiences status loss, then the bystander's emotions of “contempt” and “pity” towards that person would increase because contempt and pity are emotions that track the status of others in the social world. We asked groups of 20 raters to forecast how much contempt or pity they would feel towards either a man or woman in their social world who possessed various personal characteristics. Then, we correlated those ratings with ratings of the sex-specific status impacts based on ratings from $N = 2,751$ people across 14 different countries. We found that the emotions of contempt and pity have large sex-specific correlations with changes in others' status, such that pity and contempt increase when witnessing status decreases in others. These findings provide evidence that contempt and pity are part of a universal system for tracking changes in others' hierarchical status.

“Safe Sex Motivations”

Kyra Ness-Lanckriet (Tulane University), James B. Moran (Tulane University), & Dr. Damian R. Murray (Tulane University)

The central goal of this study is to measure the relationship between fundamental social motives and measures of condom use, with a secondary analysis on the relationship of perceived vulnerability to disease to condom usage. This study is novel because there has been little research done on the connection between varying social motives, individual perceived vulnerability to disease, and sexual health behaviors, such as condom usage. Results from the regression analysis demonstrated mixed results. For the regression analyses including the fundamental social motives scale and its effect on condom usage, significant main effects were found in the subcategories of self-protection, affiliation group, affiliation exclusion concern, mate seeking, and kin care child. No significant interactions were found.

“Emotions that track loss of status in others”

“How to heal a broken heart: Sex differences in effects of a new love on an old flame”

Yurika Ono (Doshisha University) & Masanori Oikawa (Doshisha University)

When the relationship ends but you still feel incomplete, intrusive thoughts and lingering affections about an old flame occurs. The purpose of this study was to investigate sex differences in effects of a new love on withdrawal from an old flame. Heterosexual Japanese undergraduate students were asked to rate how incomplete they feel about their old flame, whether or not they have found a new love, and whether or not they are in a new relationship. Females who are in a new relationship reported feeling less incomplete about their old flame. In contrast, males who have found a new love (vs. males who have not found a new love) reported feeling more incomplete about their old flame, even when they are in a new relationship. Thus getting over an old flame seems harder for males than for females, and finding a new love only helps to heal a broken heart in females. Males are susceptible to intrusive thoughts and lingering affections about an old flame, even when they are in a new relationship. Possible explanation about such sex differences from evolutionary perspective is discussed.

“The optics of fairness: When do we punish friends and forgive the trespasses of enemies?”

Victoria H. Spooner (Oklahoma State University), Jaimie Arona Krems (Oklahoma State University), & Amanda Baraldi (Oklahoma State University)

Efforts to appear fair might actually lead us to act unfairly. For example, when workplace decisions are public, we are more likely allocate bonuses to mere colleagues over deserving friends, presumably to avoid the appearance of partiality (Shaw, Choshen-Hillel, & Caruso, 2018). Here, we investigate whether concerns with appearing fair might also drive biased condemnation—causing us to punish the trespasses of friends and forgive those of rivals. In Experiment 1, participants publicly or privately fired one of two technicians at their start-up, choosing between a friend and a mere colleague (friend condition) or between a rival and a mere colleague (rival condition). People chose to fire their friends more frequently when

decisions were public (50%) than private (30%), and chose to fire their rivals less frequently when decisions were public (45%) than private (85%). In a planned second experiment (pre-registered: osf.io/bx2wm/), participants read about workplace friends, rivals, or mere colleagues pilfering company property and make a public or private decision about how severely to punish that target. Results further explore whether our concerns about fairness optics can influence the fairness of our actual behavior, with implications for the functions of moral phenomena.

“Expectancy Learning in Honey Bees (*Apis mellifera*)”

KiriLi N. Stauch (Oklahoma State University), Harrington Wells (The University of Tulsa), & Charles I. Abramson (Oklahoma State University)

Traditionally, researchers evaluated expectancy in animals by studying avoidance behaviors; however, another way to study expectancy learning is to study event anticipation. There is extensive amount of literature on learning in honey bees (*Apis mellifera*), which makes them an ideal candidate for studying expectancy learning. A series of three experiments were conducted with harnessed bees to determine whether bees could anticipate an event through the form of an unconditioned stimulus (US). The first experiment was conducted to determine that there was a difference in bees' proboscis extension response (PER) for the US (sucrose and honey). Bees in the second experiment were tested to determine if there was a difference in bee CS response and PER when a CS (cinnamon or lavender scent) was paired with a US (sucrose or honey). In experiment three, bees were presented with CS (cinnamon and lavender scent) and US (sucrose and honey) pairings and tested on their response times to the CS and their US retract times. The findings from this study show that bees distinguished between the US (honey and sucrose), exhibiting significantly longer PERs to the honey ($M= 19.95, SD= 1.31$) compared to the sucrose ($M= 3.31, SD= 0.50$), $t(22) = -41.14, p < .001$. Bees did not exhibit significant differences in CS response to retract times in the honey condition ($M=2.933, SD= .144$) compared to the sucrose condition ($M= 2.825, SD= .218$), $t(22) = -1.438, p= .165$. These findings suggest that bees did not anticipate the US (sucrose and honey) when they were presented with the CS (cinnamon or lavender scent).

“Paternal Biobehavioral Influence on the Family: Preliminary Data from the D.A.D.I.O. Project”

Mikayla Tolliver (Oklahoma State University), Nikki Clauss (Oklahoma State University), & Jennifer Byrd-Craven (Oklahoma State University)

While research on maternal influence on the family unit has increased in recent years, assessment of the paternal influence remains sparse. The goal of this research was to increase our understanding of paternal influence on the biobehavioral dynamics of the family unit. Participants consisted of 40 family units recruited between 28- and 36-weeks' gestation. Participants completed 6 monthly questionnaires and an in-home visit when the infant was 4 months of age, during which parents and infants completed semi-structured interaction tasks and provided saliva samples. Saliva was assayed for testosterone, progesterone, and cortisol. Results revealed that fathers' testosterone was associated with father-infant synchrony ($p= .03$), mother-infant synchrony ($p= .02$), and marginally with partner synchrony ($p= .08$). Maternal progesterone responses were correlated with father-infant synchrony and marginally with

couple satisfaction ($p = .08$) Finally, Infant cortisol was inversely correlated with alloparental support ($p = .003$). Together, results suggest that a more muted testosterone response is associated with maternal sensitive responding, that maternal progesterone and paternal testosterone may serve similar functions in the familial context, and that alloparental support facilitates infant HPA response selectivity.

“Gratitude and the Formation and Maintenance of Friendships”

Lena M. Wadsworth (University of Colorado Boulder), Daniel E. Forster (U.S. Army Research Laboratory, Aberdeen Proving Ground, MD), Michael E. McCullough (University of Miami), Debra Lieberman (University of Miami), & Eric J. Pedersen (University of Colorado Boulder)

Previous findings suggest that gratitude signals benefit reception and the intent to engage in a cooperative relationship. We propose that the evolved function of gratitude is to motivate the formation and strengthening of mutually beneficial relationships by signaling to another individual that he or she is valued, and that this plays a key role in all types of mutually beneficial relationships in humans. In the present study, we measured experiences of gratitude over a time of social transition (people’s first semester of college) to test the role of gratitude in friendship formation and maintenance. 111 undergraduates listed and ranked their four closest friends, and reported on their closeness, commitment, and their welfare-tradeoff ratios (WTRs) toward each friend. Participants repeated this process approximately every two weeks over the course of the semester (up to five times), including a re-ranking of their friend list with the option of adding a new friend and subtracting an old one. Additionally, participants reported on their experiences of gratitude toward each of their friends since their last report. Here we discuss the roles that gratitude and changes in WTR played in friendship rankings, new friendship formation, and self-reported closeness and commitment toward friends.

“Sorry, not sorry: Unpopular individuals report but do not display empathy and prosocial behaviors”

Rebekkah Wall (Missouri State University), Amber Massey-Abernathy (Missouri State University), & CaSandra Stanbrough (Missouri State University)

Cooperation is an evolutionary adaption that facilitates group living based on gaining and maintaining resources (Boyd & Richerson, 2009). One aspect associated with a cooperative society is prosocial behaviors including physical and emotional helping behaviors (Baston & Powell, 2003). Often prosocial behaviors are seen in conjunction with empathy. Empathy can act as the “glue” of our social world by allowing us to understand the intentions of others, predict their behaviors, and experience an emotion based on someone else’s emotions (Baron-Cohen & Wheelwright, 2004). Although empathy and prosocial behaviors are adaptive, in extremes they can be costly by increasing systematic inflammation, depression, compassion fatigue, burnout, and decreasing resources for the self (Konrath & Grynberg, 2016; Manczak, DeLongis, & Chen, 2016; Schieman & Turner, 2001). The current study examined the impact of social status on empathy and prosocial behaviors. Specifically, self-reported popular and unpopular individuals were examined based on resource control strategy usage, empathy quotient (EQ) scores, helping behavior, and galvanic skin response to an emotion inducing video about rejection and bullying. Unpopular individuals self-reported higher levels of

empathy, but did not display greater galvanic skin responses or more helping behavior. Social and biological implications from an evolutionary perspective are discussed.

“Individual differences in hierarchy negotiation strategies”

Daija Willis (University of Texas at Austin), Patrick Durkee (University of Texas at Austin), & David Buss (University of Texas at Austin)

Status seeking is a fundamental human motive and there are several known strategies for negotiating status hierarchies. Relatively little is known about whether and how individual differences in hierarchy negotiation are adaptively patterned. The aim of this study is to explore the relationships between status seeking strategies, personality, and physical traits. We hypothesized that status-seeking strategies would be reliably and functionally associated with differences in personality, and self-perceptions of physical characteristics, such as attractiveness, formidability, and health. In order to test this hypothesis, 470 participants fill out the hierarchy negotiation tactic form, the dominance-prestige scale, and HEXACO personality inventory short form, and reported their self-perceptions of strength, attractiveness, and health. Correlational analyses reveal several adaptively patterned links between status-attainment strategy, personality, and physical characteristics. These results provide new insight into the evolution of individual differences hierarchy negotiation strategies.

“Relationship between status-seeking and socio-sexuality”

Jeik Yoon (University of Texas at Austin), Patrick Durkee (University of Texas at Austin), & David Buss (University of Texas at Austin)

Research has established strong cross-cultural evidence of positive association between status and reproductive success. This study aimed to examine the psychology underwriting this behavioral relationship. Given that less restricted mating strategy could increase men’s reproductive success, and that status is one way to gain access to more mates, we hypothesized that men—and to a lesser degree, women—who have less restricted socio-sexuality would tend to have higher status-seeking tendencies. To test this hypothesis, we collected data from an internet convenience sample (N = 927) who reported their respective desire for status using the need for status (NFS) scale; and their socio-sexuality using the SOI-R scale. Results provide partial support our hypothesis: men’s—and to a lesser extent, women’s—desire for status was positively associated with the desire facet of the SOI-R, but the behavior and attitude facets of the SOI-R were not significantly associated with need for status. Discussion focuses on the generalizability of these findings potential explanations of these effects.

“Girl power: The influence of women’s judgments on other women’s perceptions of attractiveness”

Laureon Watson (Oklahoma State University), Kristine Kelley (Western Illinois University)

Men value physical attractiveness in their mates. As such, women’s intrasexual competition tends to occur within the domain of physical attractiveness. In order to gauge one’s own status among a sea of rivals it is important for women to be aware of how rivals’ appearances are judged by others. Here we assess whether women’s perceptions of other women’s physical attractiveness are influenced more by men’s or women’s judgments of their appearance.

Female participants viewed 20 female faces and attractiveness ratings given to them by fictitious groups of men and women. Participants were asked to give their own attractiveness ratings for each photo. Results indicate that women consider the opinions of both men and women when judging the attractiveness of a rival woman. However, when men and women have opposing opinions, participants' ratings are most similar to those of the women. This suggests that women do not only judge rivals' attractiveness by the opinions of potential mates, but take into account both men's and women's judgments. Further, women's opinions seem to take precedence over men's, suggesting that women may be perceived as the authority on female attractiveness.

