

The Jaffe Symposium on Security and Scarcity



Oct 5-6, 2017
University of Michigan
Ann Arbor, MI USA
<http://consumption.umich.edu/JaffeSymposium/>

Welcome

This conference is designed to create an interdisciplinary dialogue on the psychological and biological consequences of security versus scarcity. Both are broadly construed to include phenomena from early developmental conditions across species to financial decisions in human adults. The conference includes speakers from a diversity of perspectives and methods—including economic inequality, life history theory, childhood adversity, attachment theory, neuroendocrinology, and animal behavior—with an eye toward uncovering connections across areas. The goal is to create a unified conceptual platform that introduces attendees to high quality, basic science research on how security versus scarcity promote unique and adaptive life strategies, on the basis of evolved biological and psychological mechanisms. To promote an open, accessible dialogue, this academic conference is open to the public and includes a day of short, engaging, and accessible talks (e.g., TED style) on Friday the 6th, after a full-length plenary opening talk on Thursday evening the 5th.

Thank you to Martin Jaffe, MD for his generous contribution to this meeting. Support was also provided by the Department of Psychology and the Evolution and Human Adaptation Program (EHAP).

Schedule of Events

Thursday, October 5th, 2017

Room 4448 East Hall

6:00-6:30 PM Opening reception (light appetizers)
6:30-6:45 PM Welcome and Introductions
6:45-7:45 PM Keynote Address by Dr. Nathan Fox:
The Lasting Effects of Early Adversity

Friday, October 6th, 2017

Pendleton Room at the Michigan Union

8:00-9:00 AM Continental breakfast
9:00-9:15 AM Introduction
9:15-9:45 AM Dr. Katie Hinde:
Mother's Milk: Building a Baby's Brain and Behavior
9:50-10:20 AM Dr. Robin G. Nelson:
Matters of the Home: Institutional Care, Child Growth, and Familial Cultures in the Caribbean
10:20-10:40 AM Coffee break
10:40-11:10 AM Dr. Sarah E. Hill:
Growing Up Poor Promotes Eating in the Absence of Hunger
11:15-11:45 AM Dr. R. Chris Fraley:
What Makes People Secure or Insecure in their Relationships?
11:45-12:15 PM Open morning discussion
12:15-1:30 PM Lunch Break
1:30-2:00 PM Dr. Steven Gangestad:
Hormones, Security, and Scarcity: It's About Getting in Tune
2:05-2:35 PM Dr. Elizabeth Archie:
A Multitude of Insults: Cumulative Early Adversity Predicts Lifespan in Wild Baboons
2:35-3:00 PM Break
3:00-3:30 PM Dr. Michael Norton:
Wanting, Voting, and Paying for Greater Equality
3:30-5:00 PM Open Afternoon Discussion & Student Presentations
5:00-6:00 PM Happy Hour - Pendleton Room
6:00-8:00 PM Dinner for speakers - Welker Room

Abstracts

Thursday, October 5th, 2017 - Room 4448 East Hall



6:30-7:45 PM

**Keynote Address by Dr. Nathan Fox,
University of Maryland:**

The Lasting Effects of Early Adversity

The effects of early adversity on behavior and brain are often assumed although the research evidence is based mainly on correlational studies, often with retrospective report of early adverse life experiences. My talk will review the evidence for sensitive periods in development and using data from the Bucharest Early Intervention Project (BEIP) I will provide research findings on the lasting effects of early

adversity on human cognitive and social behavior. BEIP is the first and only randomized clinical trial of foster care as an intervention for infants and young children who were living in institutional settings in Romania. The study examined the effects of early psychosocial deprivation and whether age of placement of a child into a family affected their brain and behavioral development. The findings from this study have implications for young children living in conditions of neglect in the United States and the millions of children around the world who are living in institutions.

Friday, October 6th, 2017 - Pendleton Room Michigan Union



9:15-9:45 AM

Dr. Katie Hinde, Arizona State University:

Mother's Milk: Building a Baby's Brain and Behavior

Did you know mother's milk is older than dinosaurs? Or that the "biological recipe" of milk can differ for sons and daughters? Mother's milk is food, medicine, and message that shapes a baby's brain, body, and behavior. Across rodents, monkeys, and humans, mother's milk predicts temperament, cognition, and social behavior, influencing these systems not only during infancy, but organizing trajectories into adolescence and adulthood. What we take for granted in the grocery store dairy aisle has been shaped by hundreds of millions of years of natural selection. As we better unlock the mysteries of milk, we gain essential new

tools for human health and well-being. Biological and social scientific research on this topic can directly translate to more personalized clinical recommendations and health optimization for mothers and their infants as well as substantiate the importance of infrastructure and institutional support for breastfeeding. Further, a better understanding of the composition and function of milk informs the composition of a more representative infant formula for those mothers facing obstacles or contraindications to breastfeeding. Lastly, decoding mother's milk will allow for enhanced precision medicine for the most fragile infants and children in neonatal and pediatric intensive care units. Transdisciplinary approaches to mother's milk research, along with public engagement, facilitate discoveries at the bench and their translation to applications at the bedside.



9:50-10:20 AM

Dr. Robin G. Nelson, Santa Clara University:

Matters of the Home: Institutional Care, Child Growth, and Familial Cultures in the Caribbean

Studies of kin selection in species ranging from eusocial insects to primates assume that material resources are provided via locally bounded networks. However, for many human children, there are no kin who are able to provide care during critical periods of development. This talk explores what happens to child growth and development when culturally specific familial practices are unavailable. Using data gathered from 200+ children living in state-regulated institutional care settings and familial homes in Jamaica, I use biometric data to investigate the relationship between variability in growth

outcomes and ethnographic evidence of qualitative forms of caretaker investment. Place of residence is correlated to variability in gendered health outcomes. Boys living in familial homes have better growth outcomes than their peers living in institutional care settings. However, boys living in institutional settings that mimic natal home environments experience growth outcomes that are not significantly different than their peers living in natal homes. Additionally, repeated measures ANOVA analyses reveal that girls living in institutional care settings experienced significant improvements in growth measurements over time, as compared to their male peers. This presentation considers how experiences of gender socialization, resource scarcity, and vulnerability impact boys and girls differently, and how these experiences are embodied during critical periods of growth and development.



10:40-11:10 AM

Dr. Sarah E. Hill, Texas Christian University:

Growing Up Poor Promotes Eating in the Absence of Hunger

Previous research has established childhood poverty as a risk factor for obesity, but the mechanisms driving this relationship have not been completely clear. While lack of access to healthy foods and safe places to play may help to explain the association, my research suggests that our early experiences may become biologically embedded in our energy regulation patterns in ways that have a lasting influence on how we eat into adulthood. In this talk, I am going to tell you about research showing that growing up poor may encourage the development of eating patterns that promote survivability in resource scarce environments, but increase the risk of obesity in those that are food rich. First, I will tell you about research done on college students examining the impact of childhood poverty on eating in the absence of hunger. This research finds that growing up poor predicts eating in the absence of hunger,

even among those who are able to escape poverty in adulthood. I will then tell you about research we are doing with children to better understand the development of unhealthy eating patterns in the context of early life poverty. This research sheds new light into the psychology of scarcity and its impact on health.

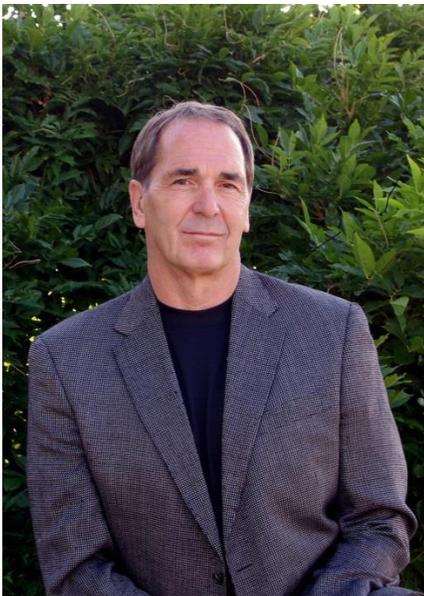


11:15-11:45 AM

Dr. R. Chris Fraley, University of Illinois Urbana-Champaign:

What Makes People Secure or Insecure in their Relationships?

There are vast individual differences in the ways in which people relate to significant others in their lives. Some people, for example, are relatively secure in their relationships. They are comfortable opening up to others and having others depend on them. Other people, in contrast, are insecure. They are uncomfortable depending on others and worry that others will not be available when needed. Social psychologists refer to these kinds of individual differences as "attachment styles." This talk will address three questions about adult attachment styles: Why are some people more secure than others? What are the implications of being secure vs. insecure for psychological functioning? And what can people do, if anything, to change their attachment styles?



1:30-2:00 PM

Dr. Steven W. Gangestad, University of New Mexico:

Hormones, Security, and Scarcity: It's About Getting in Tune

How do we seize opportunities afforded by propitious circumstances and ward off threats that arise from unfavorable ones? Naturally, of course, that's partly what brains are for. Though true, this answer is incomplete. Nervous systems are but one of three types of distributed, systemic communication systems in vertebrate organisms, the others being endocrine and immune systems. Arguably, the function of these internal signaling systems is, in broad conceptual terms, to attune how we put energetic resources and embodied capital, including our brains, to use such that we effectively seize opportunities of various kinds and thwart a panoply of threats. In this conceptual framework, trade-offs are inevitable: Efforts and attention

directed toward one direction necessitate that they turn away from others. Internal signaling systems have hence evolved to coordinate multiple psychological and physiological attunements entailed. Attunements occur on time scales ranging from short-term responses to immediate events to long-term adjustments to establishing conditions during development. These phenomena and their implications can be explored through a host of different signals, ranging from the stress hormone cortisol, to reproductive steroids such as estrogen and testosterone, to the maternal and pair-bonding hormone oxytocin, to signals that emanate from fat cells. Negative psychological and physiological effects of hormones can too readily be interpreted as evidence of a system gone awry – a "dysregulated" stress response, an "overactive" estrogen system, a "deficit" in oxytocin. To the contrary, in more cases than not, what we perceive as negative manifestations reflect the fact that perfectly adaptive, evolutionarily "wise" attunements inevitably entail costs.



2:05-2:35 PM

Dr. Elizabeth Archie, University of Notre Dame:

A Multitude of Insults: Cumulative Early Adversity Predicts Lifespan in Wild Baboons

Adversity in the first few years of life often leads to poor health in adulthood. However, harsh early life conditions rarely occur in isolation, and the experience of multiple sources of adversity are thought to be especially toxic. In this talk, I discuss research by my collaborators and I, which tested the effects of cumulative early adversity on

the health and survival of wild baboons. Using prospective, longitudinal data on 196 individuals, we found that cumulative early adversity has profound consequences for baboons' natural adult lifespans. Individuals who experienced ≥ 3 sources of early adversity died a median of 10 years earlier than those who experienced ≤ 1 adverse circumstances (median lifespan is 18.5 years). Animals who experience the most adversity were also socially isolated in adulthood, suggesting that social processes partially explain the link between early adversity and adult survival. These results provide powerful evidence for the developmental origins of health and disease and indicate that close ties between early adversity and survival arise even in the absence of health habit and health care-related explanations.



3:00-3:30 PM

Dr. Michael Norton, Harvard University:

Wanting, Voting, and Paying for Greater Equality

Our research reveals that people all over the world prefer less inequality – in wealth, health, and income. For example, Americans report an ideal CEO-to-worker pay ratio of 7:1 while the actual ratio is more than 300:1, and consumers prefer to buy from firms with lower pay ratios. Increasing awareness of current inequality shifts preferences toward policies that reduce it.

Student Blitz Talk Presentations

Shannon Murphy: Biopsychology, Cognition and Neuroscience, 4th year

Life History Stability Predicts Intentions to Cooperate with Police

Recent policing incidents have increased attention to relationships between community members and police. Academic research on attitudes toward police predominantly follows Tyler's process-based model of policing; examining the influence of socio-demographic factors on perceptions of procedural justice, whether or not police are fair and trustworthy in their interaction with community members. Research investigating individual differences in perceptions of the police and reporting behaviors and intentions to cooperate with the police typically focuses on basic demographic factors such as race/ethnicity. Despite a considerable volume of research there are few consistent findings beyond generally less favorable perceptions of police among ethnic minority groups. We used evolutionary Life History Theory as a basis for understanding relations with authority figures. We found that the stability of resource access in critical life domains predicted both perceptions of procedural justice and intentions to cooperate with the police, beyond the influence of demographic factors, in a demographically and geographically representative sample in a Midwestern county.

Logan Bickel: Cognitive Science, Undergraduate Student (senior)

Feeling Dispassionate about Environmental Harm is linked to Lower Emotional Responsiveness

The success of pro-environmental campaigns and programs depends on both the degree that people perceive a risk to the environment and how much they care about that risk. Our prior research has identified a group of individuals who are "impassive" about environmental degradation, meaning that they do not feel as bad when viewing images of the earth being damaged or destroyed, and they offer less support to environmental programs. To understand why these "impassives" are not upset about the state of the environment, we hypothesized that perhaps they are simply less emotionally reactive or empathetic overall, and not just about the environment. To test this hypothesis, we compared people who view the earth as impassive to those who view it as vulnerable on standard emotion-eliciting images and surveys of psychopathy, emotional expressivity, alexithymia, and concern for future consequences. We found that individuals who respond impassively to environmental stimuli also respond impassively to non-environmental stimuli (both positive and negative). They also reported lower emotional expressivity, weaker emotional experiences, less feeling and care for others, and a view of the earth as secure (i.e. not vulnerable). However, those who view the earth as more vulnerable are not more concerned about the future consequences of their behavior. Given these findings, environmental appeals that focus on eliciting emotion or empathy for the earth are not expected to reach these impassive individuals and new measures must be taken to gain traction with this group.

Iris Wang: Social psychology, 3rd year

Who am I? The Impact of Early Life Environments on Self-concept Stability

Who am I? The answer to this age old question may depend on childhood resource availability and environmental stability. In a preliminary investigation (N = 198), we find some evidence linking early childhood environments to the structure of the self. Specifically, we find that early childhood unpredictability is associated with a self-concept that feels subjectively unclear and is unstable across situations. However, most people, regardless of background, do experience some amount of personality shift across situations, so we also examined how this instability impacted participants' well-being. Notably, we find that self-concept instability across situations predicted decrements in relationship satisfaction and felt authenticity, but only for those people who reported stable childhoods. This suggests that people from unpredictable backgrounds not only have more variable personalities across situations, but also place less weight in maintaining a fixed, clear sense of self.

Tingting Liu: Psychology, CCN, 3rd year

Washing or Hoarding: How Emotions and Their Targets of Concern Predict Diverging Responses

Individuals vary in preference for a clean or cluttered environment. Strangely, in clinical and nonclinical populations compulsive washing and hoarding are highly correlated—exhibiting opposing responses to very similar underlying states (anxiety and depression). How can we explain this paradox? We predicted that anxiety about germs, higher disgust sensitivity would create a preference for cleanliness, while lower germ concern, lower disgust sensitivity and lower socioeconomic status (SES) would create a preference for hoarding behaviors. 123 nonclinical adults (18-32 years) were prescreened with the Obsessive Compulsive Inventory-Revised and completed scales for depression, anxiety, disgust, perceived vulnerability to disease, and current/childhood SES. Partial and bivariate correlation analyses were conducted. Results confirmed that the tendency to clean and hoard—even in nonclinical samples—were highly intercorrelated. Both were increased by anxiety and by depression, but the correlation with anxiety was stronger for cleaning and that with depression might have been stronger for hoarding. Furthermore, anxious cleaning was associated with higher perceived infectibility, fear of germs, disgust, and lower childhood SES. In contrast, hoarding was associated with lower germ concern and current SES. Future work can use causal mechanisms to demonstrate the way emotions, security, and their targets of concern interact to form preferences.

Tiffany Jantz: Psychology, CCN, 5th year

Previous Incarceration Predicts Late-in-Life Cognitive and Psychiatric Issues

The United States has nearly 25% of the world's prisoners, the majority of whom will return to society with an estimated 1,880 people released from custody each day. Institutions for incarceration are deprived environments, limiting novel sensory input, autonomy, and educational opportunities for inhabitants. Despite the potential effects of prison-related environmental-deprivation, few studies have investigated the long-term effects of previous incarceration on psychological and cognitive health following societal reintegration. Using data from the Health and Retirement Study, which consists of a nationally-representative sample of approximately 20,000 Americans over the age of 50, decarcerated participants were compared to those who have never been incarcerated (controls) on self-report measures related to psychological health and objective measures of cognitive performance, accounting for differences in age, sex, race, education and income. Previous incarceration was associated with increased odds of self-reported poor health, smoking, binge drinking, low life-satisfaction, trouble with pain, undergoing psychiatric treatment, and having received a dementia diagnosis in older adults. Further, decarcerated participants exhibited lower immediate and delayed memory performance, lower number reasoning, and higher cognitive impairment compared to controls. This present study suggests that, even when controlling for other related factors, previous incarceration may be related to declines in mental and cognitive health evident years-and in some cases decades- after societal reintegration.

Lauren Bader: Postdoc, Psychology & Center for Human Growth & Development

Mothers' Perceptions and Responses to Infant Emotions among the Gamo of Southern Ethiopia

Parents' beliefs about their infants and their ensuing parenting strategies are shaped by ecological contexts and cultural schema. Furthermore, parents respond to their infants' emotions in ways they believe are most appropriate. According to attachment theory, these reciprocal interactions make up the infants' social-emotional environment and appear to guide future development and relationship formation; however, this trajectory is supported mostly from research in Western industrialized contexts. In this study, parents' perceptions of infants' emotions were investigated through a qualitative study that included interviews with 29 Gamo (Southern Ethiopia) mothers about perceptions of their infants' emotions and what they believed were the best responses. Next, we examined the link between Gamo mothers' feelings about their infants' negative emotions and mother-infant interactions measured through focal-infant observations. In interviews with Gamo mothers, perceptions of infant emotions were associated with beliefs about basic needs for infants and some mothers expressed stress when their infants fussed or cried. Mothers who reported feeling stressed showed fewer mother-infant interactions. However, mothers who did not express stress had infants that fussed and cried more than infants of mothers who reported stress. The link between Gamo mothers' perceptions of their infants' emotions and basic needs suggests that mothers were mainly focused on keeping infants healthy and alive in a relatively harsh environment. Lastly, infants with mothers who did not express stress may cry and fuss more because they are involved in more interactions with their mothers overall and perhaps use fussing and crying to maintain interactions.

Jaffe Family

This symposium has benefited from the generous support of alumnus Dr. Martin Jaffe. Dr. Jaffe completed both his undergraduate degree and medical training at the University of Michigan, before pursuing a career in internal medicine and cardiovascular research in Bay City, Michigan. Since retiring from practice, he has written extensively about the fundamental role of security in human and mammalian evolution and psychology. His work can be found here: www.mdjaffe.com.

Marty and his wife Ruth have four children, ten grandchildren, and one great grandchild. Of the nine members of their immediate family who have trained in medicine, seven attended medical school at Michigan.



Our appreciation to Dr. Jaffe for his generous contribution to this symposium. Support was also provided by the Department of Psychology and the Evolution and Human Adaptation Program (EHAP).

Special Thanks

Martin Jaffe, MD and family

**The Evolution and Human Adaptation Program
(EHAP)**

The Department of Psychology

Jaffe Symposium Speakers

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Sarah E. Hill

Katie Hinde

Elizabeth Archie

Steven Gangestad

Michael Norton

R. Chris Fraley

Robin G. Nelson

Jaffe Symposium Steering Committee

Josh Ackerman

Jacinta Beehner

Thore Bergman

Daniel Kruger

Stephanie Preston

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Conni Harrigan

Teera Losch