

# The Jaffy 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,

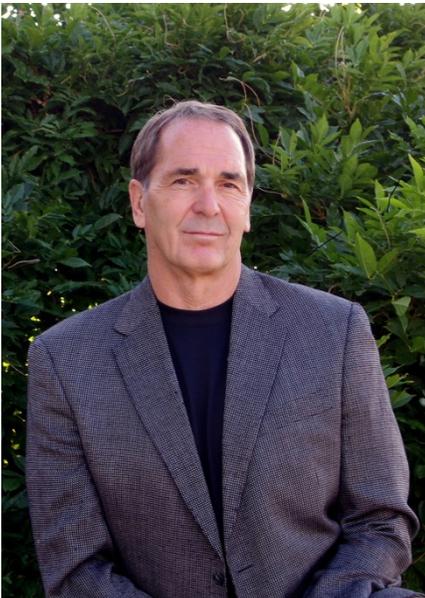
even among those who are able to escape poverty in adulthood. I will then tell you about research we are doing with children to better understand the development of unhealthy eating patterns in the context of early life poverty. This research sheds new light into the psychology of scarcity and its impact 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  $\geq 3$  sources of early adversity died a median of 10 years earlier than those who experienced  $\leq 1$  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.

# 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](http://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**

Nathan Fox

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

Brenda Volling

Conni Harrigan

Teera Losch