

## ROBERT FRANCIS LYNCH

Department of Anthropology | Pennsylvania State University  
Greensboro, NC  
robertflynch@gmail.com  
(336) 207-6218

### SUMMARY

I am a bio-cultural anthropologist, specializing in how biology, the environment and culture come together to shape life history outcomes. My current work with **the Shenk Research Group** at Penn State is centered around seeking to understand how religion increases cooperation which can lead to higher fertility and greater social mobility. Previous research with the **Human Life History Project** in Finland sought to understand the impact of immigration on reproduction and social capital, while my time at the University of Missouri was spent analyzing the relationship between marriage practices and violence using an extraordinary database of previously uncontacted Yanomamo Indians from the Amazon rainforest. All of this research relies on Bayesian statistical techniques to analyze social networks and longitudinal, population-based genealogical databases in an attempt to understand how culture interacts with biology to produce human behavior .

### EDUCATION

#### Ph.D. Biological Anthropology, 2014

*Rutgers University*

*New Brunswick, NJ*

Dissertation: *The Evolution of Life History Traits in Iceland: 1650-1950*

Advisor: *Robert Trivers*

#### Cognitive Science certificate

*Rutgers University*

*New Brunswick, NJ*

#### Post-baccalaureate, Biology

*Hunter College, City University of New York*

*New York City, NY*

#### B.A., English Literature

*University of Michigan*

*Ann Arbor, MI*

### PROFESSIONAL APPOINTMENTS

#### Postdoctoral Fellowship, Anthropology and Demography

2020-present

*Pennsylvania State University*

*Happy Valley, PA*

Advisor: *Mary Shenk*

#### Postdoctoral Fellowship, Biology

2017-2020

*University of Turku*

*Turku, Finland*

Advisor: *Virpi Lummaa*

#### Postdoctoral Fellowship, Anthropology

2014-2017

*University of Missouri*

*Columbia, MO*

Advisor: *Napoleon Chagnon*

### PUBLICATIONS

#### Peer Reviewed Journal Articles

**Lynch, R., Lummaa, V. Chapman, S., Briga, M. and Loehr, J.** Child volunteers in a World War II paramilitary organization have accelerated reproduction and higher lifetime reproductive success. **2020.** *Nature Communications.*

-A comprehensive confirmation of a key prediction of life history theory that children adaptively respond to stress and higher mortality by expediting their reproductive schedules.

Danielsbacka, M., Aho, L., **Lynch, R.**, Pettay, J. Lummaa, V. and Loehr, J. **2020**. The resettlement and subsequent assimilation of evacuees from Finnish Karelia during and after World War II. *Digital History Yearbook*  
-A summary of key factors predicting the reverse migration of a population of refugees.

Lynch, E., Johnson, C., **Lynch, R.**, Rothman, J., Di Fiore, A., and Palombit, R. **2020**. Mothers and fathers improve foraging in immature olive baboons (*Papio hamadryas anubis*). *Behavior*  
-First paper to show that fathers may offer foraging benefits for their offspring in olive baboons.

**Lynch, R.**, Lummaa, V. and Loehr, J. **2019**. Kin psychology may help to explain decisions to volunteer for a womens paramilitary organization in World War II Finland. *Evolution and Human Behavior*.  
-First paper to provide evidence of identity fusion for women participating in war.

**Lynch, R.**, Lummaa, V., Middleton, K.M., Panchanathan, K., Rotkirch, A., O'Brien, D., Danielsbacka, M. and Loehr, J. **2019**. Integration involves a trade-off between fertility and status for Finnish evacuees in World War II *Nature Human Behaviour* (1).  
-Shows the differential benefits of bridging and bonding social capital for immigrants.

**Lynch, R.**, Wasielewski, H. and Cronk, L. **2018**. Sexual conflict and the Trivers-Willard hypothesis: Females prefer daughters and males prefer sons. *Nature Scientific Reports*, 8(1), 15463.  
-Uses experimental design to show parental preferences for same sex offspring.

Loehr, J., **Lynch, R.**, Mappes, J., Salmi, T., Pettay, J. and Lummaa, V. **2017**. Newly Digitized Database Reveals the Lives and Families of Forced Migrants from Finnish Karelia. *Finnish Yearbook of Population Research*, 52: 59-70.  
-Describes a newly digitized population based database of Finnish evacuees during World War II.

Lynch, E., Di Fiore, A., **Lynch, R. F.**, and Palombit, R. A. **2017**. Fathers enhance social bonds among paternal half-siblings in immature olive baboons (*Papio hamadryas anubis*). *Behavioral Ecology and Sociobiology*, 71(8), 120.  
-First paper to show that bonds among paternal half-siblings are mediated by fathers presence in a matrilineal society.

**Lynch, R.**, Palestis, B. G. and Trivers, R. **2017**. Religious Devotion and Extrinsic Religiosity Affect In-group Altruism and Out-group Hostility Oppositely in Rural Jamaica. *Evolutionary Psychological Science*, 1-10.  
-Suggests that religiously held religious beliefs are associated with prosocial behavior.

**Lynch, R.**<sup>1</sup>, Chagnon N.A., Shenk, M.S., Hames, R. and Flinn, M.V. **2017**. Cross cousin marriage among the Yanomamö shows evidence of parent-offspring conflict and mate competition between brothers. *Proceedings of the National Academy of Sciences*, 114 (13), E2590-E2607.  
-First paper to propose and provide evidence for the hypothesis that parent offspring conflict may play a key role in the widespread cross cultural practice of cross cousin marriage.

**Lynch, R.** and Lynch, E.C. **2016**. Parental investment increases both offspring reproduction and lifespan in Iceland. *Peer J*, 5, e2904.  
-Uses genetic and life history data to show that parental investment improves the fitness outcomes of their children.

**Lynch, R.** **2016**. Parents face quantity-quality trade-offs between reproduction and investment in offspring in Iceland. *Royal Society Open Science*. 3(5), 160087.  
-Uses genetic and genealogical data to show the additive costs of each additional sibling.

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<sup>1</sup>Lynch and Chagnon are co-first authors on this paper. Lynch designed research, analyzed data and wrote the paper. Chagnon collected the data.

**Lynch, R.** and Trivers, R. L. 2012. Self-deception inhibits laughter. *Personality and Individual Differences*, 53(4): 491-495.

*-First paper to connect self-deception to laughter.*

**Lynch, R.** 2010. It's funny because we think it's true: laughter is augmented by implicit preferences. *Evolution and Human Behavior*, 31 (2) 141-48.

*-First paper to reveal a positive association between laughter and beliefs.*

### Manuscripts in Review

**Lynch, R.**, Lynch, N., Chapman, S., Briga, M., Helle, S. and Lynch, E. Support for populist candidates in the 2016 presidential elections predicted by declining social capital and an increase in suicides. In Review at *Electoral Studies*].

*-First paper to empirically connect measures of declining social capital and deteriorating social networks with the rise of populism in the United States in 2016.*

Pettay, J. **Lynch, R.** Lummaa, V. and Loehr, J. Female-biased sex ratios in urban centres create a 'fertility trap' in post-war Finland. [In Review at *Ecology Letters*].

*-First paper to show how excess male mortality and operational sex ratios affect dispersal and mating market in post-war Europe.*

Lynch, E., Lummaa, V. **Lynch, R.**, Pettay, J. and Lahdenperä, M. Age dependent effects of aunts on calf survival in Asian elephants (*Elephas maximus*). [In Review at *Behavioral Ecology and Sociobiology*]

*-First paper to show that the presence of maternal aunts may decrease survival of offspring which adds insight and nuance into our understanding of kin selection.*

Chapman, S., Lahdenperä, L., Pettay, J., **Lynch, R.**, Lummaa, V. Grandchild survival, but not offspring fertility, enhanced by maternal grandmothers in a pre-industrial society. [In Review at *Proceedings B* ]

*-Uses historical database to show how maternal and paternal grandmothers differentially affect the life history traits of their grandchildren.*

### Manuscripts in Preparation

**Lynch, R.**, Lummaa, V., Honokola, T., Loehr, J., Pettay, J. and Vesakoski, O. Cultural adaptation predicts human migrations. Pre-registered project on the *Open Science Framework*

*-First project to test cultural adaptation hypothesis in quasi natural experiment using a unique historical dataset containing records of individuals who reverse migrated during World War II.*

**Lynch, R.**, Wasielewski, H. and Cronk, L. Experimental prime designed to trigger Trivers Willard effect. [Data have already been collected on MTurk]. Pre-registered project on the *Open Science Framework*

*-First project to experimentally test Trivers- Willard Hypothesis in humans by priming subjects to be either rich or poor.*

**Lynch, R.** and Chagnon, N.A. Cross cousin marriages among the Yanomamö promote alliances and reduce violence between patrilineages. [The analysis has been finished but submission is on hold following the death of Napoleon Chagnon and uncertainty around ownership of these data.]

*-Uses extraordinarily rare homicide and abduction data for individuals living in a traditional pre-contact population to show how the practice of cross cousin marriage can reduce conflict between villages and patrilineages.*

**Lynch, R.** and Chagnon, N.A. Life histories, violence and warfare in a tribal population revisited. [The analysis has been finished but submission is on hold following the death of Napoleon Chagnon and uncertainty around ownership of these data..]

*-Replication of an important paper (Chagnon, 1988) published in Science showing that individuals who had killed others had higher reproductive success using more sophisticated statistical techniques and several previously excluded covariates.*

### Other Publications

**Lynch, R.** 2019. Integration involves a trade-off between fertility and status for World War II evacuees. *Nature Research*

-Popularized summary and human interest background for a paper published in *Nature Human Behavior*.

**Lynch, R.** 2018. In-group vs out-group, *Encyclopedia of Evolutionary Psychological Science*. Springer International publishing. ed. Shackelford, T. K. and Weekes-Shackelford, V.A.

-Medium size entry in online *Encyclopedia*.

**Lynch, R.** 2014. The evolution of life history traits in Iceland: 1650-1950. *Doctoral dissertation*, Rutgers University Graduate School New Brunswick.

-Comprehensive analysis and review of a genetic and genealogical database recording the reproductive histories and lifespans on an entire population of individuals across three centuries.

**Lynch, R.** and Aronoff, E. September 28, 2012. Human Hubris. *Scientific American*.

-Response to an article published in the *New Yorker* magazine that was critical of the field of evolutionary psychology.

### GRANTS AND AWARDS

**Jenny and Antti Wihuri Foundation** *The impact of immigration on health, dispersal, integration and family life*. [Robert Lynch is PI on this grant] Turku, Finland (€30,000) . . . . . 2019-2020

**Kone Foundation, Biology #1461532** *Learning from our past: the effect of forced migration from Karelia on family life* [John Loehr and Virpi Lummaa are co-PI's on this grant, Robert Lynch is a postdoctoral researcher] (€30,000) . . . . . 2017-2020

**National Science Foundation BCS, Cultural Anthropology #1461532** *Collaborative Research: Demographic and Genealogical Dimensions of Cultural and Biological Success* [Napoleon Chagnon and Ray Hames are co-PI's on this grant, Robert Lynch is a postdoctoral researcher] (\$65,850) . . . . . 2015-2017

**Fulbright IIE Student Scholar Award** *Genetic and environmental determinants of life history traits at deCode genetics*. [Robert Lynch is PI on this grant] Reykjavik, Iceland (\$20,000) . . . . . 2010-2011

**Award for Distinguished Contribution to Undergraduate Education** [Recognition for teaching and developing a 'Signature' course on 21st century challenges.] Rutgers University . . . . . 2009

**Center for Human Evolutionary Studies Research Grant** [To conduct a pilot study at deCode genetics in Reykjavik, Iceland] (\$2,000) . . . . . 2008

**Waterman Special Opportunity Grant** [To conduct research in Southfield, Jamaica as part of the Jamaican Symmetry Project] Rutgers University (\$7,500) . . . . . 2007

**Graduate Student Fellowship** Rutgers University (\$20,000 per year) . . . . . 2005-2007

**Center for Human Evolutionary Studies Research Grant** [To conduct research in Southfield, Jamaica as part of the Jamaican Symmetry Project] Rutgers University (\$5,000) . . . . . 2006

## RESEARCH EXPERIENCE

- University of Turku** Columbia, MO  
*Postdoctoral Fellowship, Anthropology* 2017-Present  
Developed and supervised a large web based demographic dataset of Finnish evacuees in World War II to conduct novel research.
- University of Missouri** Columbia, MO  
*Postdoctoral Fellowship, Anthropology* 2014-2017  
Organized, managed and will ultimately make public a large-scale demographic and ethnographic database of Yanomamö Indians collected over a 25 year period.
- University of Missouri** Columbia, MO  
*Amazon Mechanical Turk* 4/2016  
Used Qualtrics survey software and Amazon Turk to collect data on explicit and implicit offspring sex preferences.
- DeCode Genetics** Reykjavík, Iceland  
*Dissertation Research* 9/2010-7/2011  
Used Íslendingabók (a genealogical database for the population of Iceland ranging from 871 A.D. to the present) to analyze the heritability of lifespan and fertility.
- Jamaican Symmetry Project** Southfield, Jamaica  
*Field Site Manager* 2006-2010  
Supervised field site and collected data including DNA, anthropometric measures, questionnaires, physiological traits and psychological data from local subjects.
- Genetics Laboratory** New Brunswick, NJ  
*Lab Research* 9/2006-5/2008  
Extracted human DNA, PCR, gel electrophoresis and DNA cloning.
- Facial Coding** New Brunswick, NJ  
*Behavioral Study on Humor Appreciation* 3/2006-10/2007  
Created and conducted a study using comprehensive Facial Action Coding System (FACS).

## TEACHING EXPERIENCE

### Academic advisor

**University of Turku**  
**Biology Department** Turku, Finland  
*Supervised Lauri Aho's Masters thesis* 2017-2018  
*Supervised Matleena Tuomoisto thesis* 2018-2019

### Primary Instructor

**University of Missouri**  
**Anthropology Department** Columbia, MO  
*Graduate Seminar on Evolutionary Theory* Spring, 2017  
*Graduate Seminar on Yanomamö marriage and kinship* Spring, 2015

**Rutgers University** New Brunswick, NJ  
**Anthropology Department** 2010-2014  
*Social Evolution (4X), Religion and Evolution (2X), Introduction to the 4 fields of Anthropology, Introduction to Human Evolution, Expository Writing, Human Evolutionary Genetics, Life of Primates*

**William Patterson University** Wayne, NJ  
**Anthropology Department** Spring, 2014  
*Linguistic Anthropology*

### Teaching Assistant

**Rutgers University** New Brunswick, NJ  
**Anthropology Department** 2007-2010  
*Introduction to Human Evolution (2X), Social Evolution (2X), Extinction (2X), Introduction to Cultural Anthropology*

### Teaching K-12

**Educate LLC** Bronx, NY  
**Elementary school** 2004-2005  
*Technology and math teacher*

**Educate for America** Košice, Slovakia  
**Secondary school** 1992-1993  
*English as a second language*

## ADMINISTRATION AND SERVICE

**Editorial Board Social Sciences** 2020-Present

**Introduction to Python workshop series, Organizer, University of Turku** Spring 2019

**Bayesian statistics working group, Organizer, University of Turku** 2017-2018

**Human Behavior and Evolution Society Conference, Planning committee, University of Missouri**  
2014-2015

- Evolutionary Studies Graduate Working Group, Member, University of Missouri** 2014-Present
- Journal Reviewer** 2010-present  
*Proceedings of the Royal Society B; PLOS ONE; Evolutionary Psychology; Journal of Social, Evolutionary and Cultural Psychology; Evolution and Human Behavior; PeerJ and Personality and Individual Differences*
- Pelham School Board in Westchester, NY** 2005-2014
- Anthropology Graduate Student Association, President, Rutgers University** 2006-2007

## PROFESSIONAL MEMBERSHIPS

- Heterodox Academy** . . . . . 2018-Present
- Human Behavior and Evolution Society** . . . . . 2007-2010,2014,2016-Present
- European Human Behavior and Evolution Society** . . . . . 2017-2018
- Cultural Evolution Society** . . . . . 2017
- American Anthropological Association** . . . . . 2014-2016,2017,2019
- American Society of Primatologists** . . . . . 2015-2017
- Society for Evolutionary Analysis and Law** . . . . . 2008-2012

## SKILLS

### Programming

R (advanced), R Shiny (intermediate), R markdown (intermediate), L<sup>A</sup>T<sub>E</sub>X (intermediate), Visual basic (beginner) and Python (beginner)

### Statistical software

R (advanced), STATA (intermediate), Python (beginner)

### Database Management

MS Access (intermediate), MS Excel (intermediate), SQL (beginner)

### Research Software

Certified in the Facial Action Coding System (FACS), Proficient in Qualtrics

### Second Languages

Spanish, French, Slovak<sup>2</sup>

## PRESENTATIONS

### Conference Presentations

- European Society for Evolutionary Biology.** *Child volunteers in World War II have accelerated reproduction and higher lifetime reproductive success.* Turku, Finland. . . . . August 2019
- Human Behaviour and Evolution Society.** *Support for populist candidates in the 2016 US presidential elections predicted by declining social capital and an increase in suicides.* Boston, MA. . . . . June 2019

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<sup>2</sup>Conversant but not fluent in all three



- Human Life History Group.** *Kin psychology helps explain women's decisions to volunteer for a paramilitary organization.* Seili, Finland. . . . . September 2018
- Human Behaviour and Evolution Society.** *Child volunteers in a paramilitary organization have accelerated reproduction.* Amsterdam, Netherlands. . . . . July 2018
- European Human Behaviour and Evolution Association.** *Integration involves a trade-off between fertility and status for Finnish evacuees in World War II.* Pécs, Hungary. . . . . April 2018
- Cultural Evolution Society** *The impact of bridging and bonding social capital on the assimilation and reproduction of Finnish evacuees.* Jena, Germany. . . . . September 2017
- American Anthropological Association.** *Religious devotion and attendance affect in-group altruism and out-group hostility oppositely.* Minneapolis, MN. . . . . November 2016
- Human Behavior and Evolution Society.** *The impact of religious belief on parochial altruism in rural Jamaica.* Vancouver, Canada. . . . . June 2016
- American Society of Primatologists.** *Quantity-quality tradeoffs over reproduction and lifespan in Iceland.* Bend, OR. . . . . June 2015
- Human Behavior and Evolution Society.** *Fitness Consequences of Spousal Relatedness in the Yanomamö.* Columbia, MO. . . . . May, 2015
- Human Behavior and Evolution Society.** *Humor: In the Lab and on the Stage.* Miami, FL. . . . . July, 2013
- Human Behavior and Evolution Society.** *It's funny because it's true: Self-deception inhibits humor appreciation.* Williamsburg, VA. . . . . May, 2007

### Campus Talks

- Department of Anthropology [Susan Alberts lab 2X],** Duke University *Child volunteers in a paramilitary organization have accelerated reproduction and talk on pre-registering hypotheses and study design* May 7 and May 21, 2020.
- Department of Sociology,** University of Helsinki [Hosted Robert Trivers talk] *'Deceit and Self-deception'* February, 2020.
- Department of Biology,** University of Turku [Hosted Robert Trivers talk] *'The Evolutionary Genetics of Honour killings* . . . . . February, 2020.
- Department of Sociology,** University of Helsinki *Migration, Social Capital and Integration.* Westermarck Seminar . . . . . December 10, 2018
- Department of Biology,** University of Turku *Migration, Social Capital and Integration.* Seminars in Biology October 30, 2018
- Department of Biology,** University of Missouri *The Evolution of Life History Traits in Iceland.* Ecology, Evolution and Behavior Fall Lecture Series . . . . . November 12, 2014
- Department of Anthropology,** Rutgers University *Self-deception and Humor.* Distinguished lecture series October 15, 2013
- Department of Anthropology,** Rutgers University *The Evolution of Virulence.* Guest lecture for Rutgers Signature course 'Extinction' . . . . . November 17, 2012



**Department of Anthropology**, Rutgers University *Sexually Antagonistic Genetic effects*. Guest Lecture for Human Evolutionary Genetics . . . . . September 23, 2009

**Department of Ecology and Evolution**, Rutgers University *Evidence for Sexual Antagonistic Effects Found in Icelandic Population*. Ecology and Evolution Spring Lecture Series . . . . . May 7, 2008

**MEDIA OUTREACH**

**The Philadelphia Inquirer** . . . . . June, 12, 2020  
*How coronavirus and civil unrest put children’s health at risk*

**The Mirror** . . . . . November, 13, 2018  
*Women favour their DAUGHTERS while men prefer their sons, study reveals*

**Daily Mail Online** . . . . . November 7, 2018  
*Mothers prefer daughters and fathers prefer sons*

**Helsingin Sanomat** . . . . . November 5, 2018  
*Aidit suosivat tyttäriä ja isät poikia*

**The Nation** . . . . . September 26, 2016  
*Have you ever seen Donald Trump laugh?*

**NPR: “The Hidden Brain”** . . . . . December, 2015  
*How what makes you laugh and cringe reveals your hidden biases*

**PBS NOVA: “The Secret Lives of Scientists”** . . . . . October, 2014  
*Evolutionary Anthropologist/Stand-up Comedian*

**NPR Morning Edition** . . . . . August, 2012  
*An anthropologist walks into a bar*

**Deadspin Interview** . . . . . August, 2012  
*This Man Is A Stand-up Comedian And An Evolutionary Anthropologist Studying The Science Of Funny. Ask Him About Jokes.*

**Wall Street Journal** . . . . . May 18, 2012  
*Week in Ideas*

**Psychology Today** . . . . . January 1, 2010  
*Bias: Funny because it’s true*

**Scientific American** . . . . . October 13, 2009  
*It’s funny because it’s true*

**Multiple stand-up comedy routines at Gotham Comedy Club and the Metropolitan Room in New York City**

**NON-ACADEMIC WORK EXPERIENCE**

**American Stock Exchange** . . . . . New York, NY  
*Market maker and trader* . . . . . 1993-2005  
-Traded NYSE and NASDAQ options and equities for option trading companies

## REFERENCES

### **Robert Trivers**

President  
Biosocial Research Foundation  
Southfield PO  
St Elizabeth, Jamaica  
Email: *triversr@gmail.com*  
Tel#: 876-366-4736

### **Virpi Lummaa**

Academy Professor  
University of Turku  
Department of Biology  
Natura, Vesilinnantie 5  
20014 Turku, Finland  
Email: *virpi.lummaa@utu.fi*  
Tel# +358 504-382044

### **Mark Flinn**

Full Professor and Chair of Anthropology Department  
Baylor University  
1214 S. 4th Street, MMSCI 256  
Waco TX 76706  
Email: *Mark\_Flinn@baylor.edu*  
Tel# 254-710-4050

### **Lee Cronk**

Full Professor of Anthropology  
Rutgers University  
Ruth Adams Building, 3rd floor  
131 George Street  
New Brunswick, NJ 08901-1414  
Email: *leecronk@yahoo.com*  
Tel# 908-646-5153