Bret Alexander Beheim

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D December 18, 2020

Employment

2020-pres.

· Group Leader, Data Provenance Research Group, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

2016-2020

· Senior Researcher, Department of Human Behavior, Ecology, and Culture, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

2012-2016

· Post-doctoral Researcher, Department of Anthropology, University of New Mexico, USA

Education

2007-2012

· Ph.D. in Evolutionary Ecology, University of California at Davis, USA

2005-2006

· M.A. in Social Sciences, University of Chicago, Illinois, USA

2000-2004

· B.A. in History and Anthropology. University of California at Santa Barbara, USA with honors/Phi Beta Kappa

Research

Working Papers

- · Beheim, B., et al. (in review, Nature Matters Arising) Treatment of missing data determines conclusions regarding moralizing gods. DOI: 10.31234/osf.io/jwa2n
- · Minocher, R., Atmaca, S., Bavero, C., McElreath, R., & Beheim, B. (in review, eLife) Reproducibility improves exponentially over 63 years of social learning research. DOI: 10.31234/osf.io/4nzc7

Publications in Print

2020

- 1. Broesch, T., et al. (2020) Navigating cross-cultural research: methodological and ethical considerations *Proc. R. Soc. B.* 287:20201245. DOI: 10.1098/rspb.2020.1245
- 2. Gurven, et al. (2020) Rapidly declining body temperature in a tropical human population Science Advances Vol. 6, no. 44, eabc6599. DOI: 10.1126/sciadv.abc6599 (credited for data curation)
- 3. Wood, et al. (2020) Step Counts From Satellites: Methods for Integrating Accelerometer and GPS Data for More Accurate Measures of Pedestrian Travel Journal for the Measurement of Physical Behaviour 3(1), pp. 58-66.10. DOI: 1123/jmpb.2019-0016

- 2019 1. Borgerhoff Mulder, et al. (2019) Differences between sons and daughters in the intergenerational transmission of wealth *Philosophical Transactions of the Royal Society B* 374:20180076. DOI: 10.1098/rstb.2018.0076
- 2018 1. Ross, C. T., et al. (2018) Greater wealth inequality, less polygyny: Rethinking the polygyny threshold model. Journal of The Royal Society Interface. 15(144). DOI:10.1098/rsif.2018.0035
 - 2. Trumble, Benjamin C., et al. (2018) Parental hormones are associated with crop loss and family sickness following catastrophic flooding in lowland Bolivia. *Physiology & Behavior*. 193(A), pp. 101-107. DOI: 10.1016/j.physbeh.2018.02.028
 - 3. Schniter, Eric, et al. (2018) Information transmission and the oral tradition: Evidence of a late-life service niche for Tsimane Amerindians. Evolution and Human Behavior. 39.1: 94-105. DOI: 10.1016/j.evolhumbehav.2017.10.006
- Kaplan, H., Thompson, R.C., Trumble, B.C., Wann, L.S., Allam, A.H., Beheim, B., Frohlich, B., Sutherland, M.L., Sutherland, J.D., Steiglitz, J. et al. (2017) Coronary atherosclerosis in indigenous South American Tsimane: a cross-sectional cohort study. The Lancet. 389(10080), pp. 1730-1739. DOI: 10.1016/S0140-6736(17)30752-3
 - 2. Gurven, M., Fuerstenberg, E., Trumble, B., Steiglitz, J., Beheim, B., Davis, H., Kaplan, H. (2017) Cognitive performance across the life course of Bolivian forager-farmers with limited schooling. *Developmental Psychology*. 53(1), pp. 160-176. DOI: 10.1037/dev0000175
 - 3. Blackwell, A.D., Urlacher, S., Beheim, B., von Rueden, C., Jaeggi, A., Stieglitz, J., Trumble, B.C., Gurven, M., Kaplan, H. (2017) Growth references for Tsimane forager-horticulturalists of the Bolivian Amazon. *American Journal of Physical Anthropology*. 162(3), pp. 441-461. DOI: 10.1002/ajpa.23128
 - 4. Gurven, M., Stieglitz, J., Trumble, B., Blackwell, A.D., Beheim, B., Davis, H., Hooper, P., Kaplan, H. (2017) The tsimane health and life history project: Integrating anthropology and biomedicine. *Evolutionary Anthropology.* 26(2) pp. 54-73. DOI: 10.1002/evan.21515
 - 5. Trumble, B. C., Stieglitz, J., Blackwell, A. D., Allayee, H., Beheim, B., Finch, C. E., Gurven, M., and Kaplan, H. *et al.* (2017) "Apolipoprotein E4 is associated with improved cognitive function in Amazonian forager-horticulturalists with a high parasite burden." *The FASEB Journal.* 31.4, pp. 1508-1515. DOI: 10.1096/fj.201601084R
- 2016 1. Gurven, M., Costa, M., Eid Rodriguez, D., Stieglitz, J., Beheim, B., Trumble, B., & Kaplan, H. (2016). Health costs of reproduction are minimal despite high fertility, mortality and subsistence lifestyle. *Nature Scientific Reports*. 6(30056). DOI: 10.1038/srep30056
 - 2. Jaeggi, A.V., Hooper, P.L., Beheim, B., Kaplan, H., Gurven, M. (2016) Reciprocal exchange patterned by market forces helps explain cooperation in a small-scale society. *Current Biology*. 26(16), pp. 2180-2187. DOI: 10.1016/j.cub.2016.06.019
 - 3. Gurven, M., Trumble, B.C., Stieglitz, J., Yetish, G., Cummings, D., Blackwell, A.D., Beheim, B., Kaplan, H., Pontzer, H. (2016) High resting metabolic rate among Amazonian forager-horticulturalists experiencing high pathogen burden. *American Journal of Physical Anthropology.* 161(3), pp. 414-425. DOI: 10.1002/ajpa.23040
 - 4. Blackwell, A., Trumble, B.C., Maldonado Suarez, I., Stieglitz, J., Beheim, B., Snodgrass, J., Kaplan, H., Gurven, M. (2016) Immune Function in Amazonian Horticulturalists. *Annals of*

- Human Biology. 43(4), pp. 382-396. DOI: 10.1080/03014460.2016.1189963
- 5. Mattison, S.M., et al. (2016) The evolution of inequality. Evolutionary Anthropology: Issues, News, and Reviews. 25(4), pp. 184-199. (acknowledged as data analyst, figure author) DOI: 10.1002/evan.21491
- 6. Mattison, S.M., Beheim, B., Chak, B., Buston, P. (2016) Offspring sex preferences among patrilineal and matrilineal Mosuo in Southwest China revealed by differences in parity progression. *Royal Society Open Science*. 3(9), 160526. DOI: 10.1098/rsos.160526
- Stieglitz, J., Beheim, B., Trumble, B.C, Madiemenos, F.C., Kaplan, H. & Gurven, M. (2015)
 Low Mineral Density of a Weight-Bearing Bone Among Adult Women in a High Fertility Population. American Journal of Physical Anthropology. 156(4), pp.637-648. DOI: 10.1002/ajpa.22681
 - 2. Blackwell, A.D., Tamayo, M.A., Beheim, B., Trumble, B.C., Stieglitz, J., Hooper, P.L., Martin, M., Kaplan, H., Gurven, M. (2015) Helminth infection, fecundity, and age of first pregnancy in women. *Science*. 350(6263) pp. 970-972. DOI: 10.1126/science.aac7902
- 2014 1. Beheim, B., Thigpen, C. & McElreath, R. (2014) Strategic social learning and the population dynamics of human behavior: the game of Go. *Evolution and Human Behavior*. 35(5), pp. 351-357. DOI: 10.1016/j.evolhumbehav.2014.04.001
- 2012 1. Beheim, B. & Baldini, R. (2012) Evolutionary decomposition and the mechanisms of cultural change. *Cliodynamics*. 3(2). DOI: 10.21237/C7clio3212123
- 2011 1. Beheim, B. & Bell, A.V. (2011) Inheritance, ecology and the evolution of the canoes of East Oceania. *Proc. R. Soc. B.* 278(1721), pp. 3089-3095. DOI: 10.1098/rspb.2011.0060
 - 2. Borgerhoff Mulder, M. & Beheim, B. (2011) Understanding the nature of wealth and its effects on human fitness. *Phil. Trans. R. Soc. B.* 366, pp. 344-35. DOI: 10.1098/rstb.2010.0231
- 2009 1. Borgerhoff Mulder, Monique, et al. (2009) Intergenerational wealth transmission and the dynamics of inequality in small-scale societies. Science. 326.5953 (2009): pp. 682-688. (as data analyst) DOI: 10.1126/science.1178336

Grants, Fellowships, Awards

- 2016 · MPI-EVA Senior Researcher Funding Line. \$56,754 startup, \$56,754 annual budget over five years.
- 2015 "The Human Life Course and the Biodemography of Aging", Co-Investigator, National Institutes of Health / National Institute on Aging. \$590,659.
- 2014 · Administrative Supplement to "The Human Life Course and the Biodemography of Aging", Co-Investigator National Institutes of Health / National Institute on Aging. \$15,000.
 - · "Surviving the Flood: Vulnerability, Risk Management, and Resilience among Tsimane Forager-Farmers of Bolivia", Co-Investigator, National Science Foundation. \$126,000.
- 2009 · Graduate Fellowship Block Grant, The University of California. \$10,800.
- 2007 · Graduate Scholars Fellowship in Ecology, The University of California. \$34,022.
- 2004 · Phi Beta Kappa Honors Society

Paper Presentations

- 2018 · Beheim, B. "Milk consumption is globally widespread and increasing: Time to rewrite the textbooks?" Cultural Evolution Society Meeting.
 - · Beheim, B., Takezawa, M. "Japanese Milk Consumption: Asymptomatic Lactose Intolerance Following a Recent Cultural Diffusion." Human Behavior and Evolution Society Meeting.
 - · Beheim, B. "Atherosclerosis as a Culturally-Transmitted Disease among Acculturating Horticulturalists." European Human Behavior and Evolution Association Meeting.
- 2017 · Beheim, B., Baldini, R. "What evolutionary mechanisms drive cultural change?" Poster presented at the European Human Behavior and Evolution Association Meeting.
 - · Beheim, B. "Beyond conformity in cultural diffusion: Knowledge, opportunity and motivation." Cultural Evolution Society Meeting.
 - · Beheim, B. "Advances in studying cultural diffusions", Department of Behavioral Sciences, Hokkaido University.
- 2015 · Beheim, B., Ross, C., Thigpen, C., McElreath, R. "Cultural Evolution in Games of Chess and Go." American Anthropological Association Meeting.
 - · Rowan, C., Sangodkar, S., Achrekar, A., Tolstrup, K., Beheim, B., Stieglitz, J., Trumble, B., Gurven, M., Kaplan, & H. "Left Ventricular Systolic and Diastolic Dysfunction is an Uncommon Finding in a Pre-Industrial Society with High Inflammation and Low Atherosclerotic Risk Factors." American Heart Association Meeting.
 - · Blackwell, A.D., Tamayo, M., Beheim, B., Trumble, B.C., Stieglitz, J., Hooper, P., Kaplan, H. & Gurven, M. "Different parasites, different human life histories: Roundworm increases human fecundity and leads to earlier reproduction, while hookworm entails costs to reproduction." Human Behavior and Evolution Society Meeting.
- 2014 · Beheim, B., Gurven, M. & Kaplan, H. "What evolutionary processes drive cultural change?", Evolutionary Demography Society Meeting.

- · Gurven, M., Costa, M., Eid Rodriguez, D., Stieglitz, J., Beheim, B., Trumble, B., Kaplan, H. "Costs of reproduction and maternal depletion in a high mortality and fertility population." Population Association of America Meeting.
- · Trumble, B.C, Cummings, D., Beheim, B., Stieglitz, J., Yetish, G. Pontzer, H., Kaplan, H., & Gurven, M. "Energetic costs of testosterone: higher testosterone is associated with greater lean muscle mass and total energetic expenditure among Tsimane forager-horticulturalists." American Association of Physical Anthropologists Meeting.
- · Kaplan, H., Gurven, M., Cortez, E., Eid, D., Beheim, B., Stieglitz, J., Rowan, C., Tolstrup, K., & Achrekar, A. "Slow cardiovascular aging and rare infarcts among Tsimane forager-horticulturalists." American Association of Physical Anthropologists Meeting.
- 2013 · Thompson, M.E, Beheim, B., Blackwell, A.D., Stieglitz, J., Trumble, B.C., Gurven, M. & Kaplan, H. "Immunosenescence in Tsimane forager-horticulturalists." American Association of Physical Anthropologists Meeting.
 - · Beheim, B., Thigpen, C., & McElreath, R. "Evolutionary dynamics in the Game of Go." Institute for Pure and Applied Mathematics, University of California at Los Angeles.
- 2009 · Beheim. B.A., Bell, A.V. "Inheritance and Ecology: Canoe Evolution in Fiji and Polynesia." 3UC Evolutionary Anthropology Conference.
- 2008 · Beheim, B. "Japan's Cultural Inoculation: The Radiation and Retreat of Firearms and Christianity." Human Behavior and Evolution Society Meeting.

Fieldwork

- 2018 · Tsimane' Near-river Communities, Bolivia (6 weeks)
- 2017 · Tsimane' Near-river Communities, Bolivia (5 weeks)
 - · Hokkaido Dairy Communities, Japan (11 weeks)
- 2014 · Tsimane' Near-river Communities, Bolivia (2 months)
- 2013 · Tsimane' Upriver Communities, Bolivia (2 months)

Teaching

Primary Instructor

- 1. The Human Life Course (ANTH 160), taught 2013, 2014, 2015
- 2. Human Behavioral Ecology (ANTH 360), taught 2014
- 3. Research Computing in Evolutionary Anthropology (ANTH 560), taught 2014
- 4. Workshop on Statistical Rethinking, taught at UNM in 2016
- 5. Evolution and Human Nature (ANT 50), taught 2011
- 6. Applied Research Methods (ESP 178), taught 2011, 2012
- 7. Cultural Ecology (ANT 102), taught 2010

Teaching Assistant

- 1. Ecology and Evolution (BIS 2B), taught 2010, 2011, 2012
- 2. Physical Anthopology (ANT 1), taught 2011
- 3. Ecology and Politics (ANT 131), taught 2009
- 4. Current Issues in the Environment (ESP 10), taught 2009

Service to the Profession

Supervision, Training, Mentorship

- · Dr. Silke Atmaca, Research Coordinator starting December 2016, MPI-EVA
- · Dr. Daniel Redhead, Postdoctoral Researcher starting September 2018, MPI-EVA
- · Natalia Federova, Doctoral Candidate starting Aug. 2017, University of Leipzig / MPI-EVA
- · Riana Minocher, Doctoral Candidate starting Jan. 2018, University of Leipzig / MPI-EVA
- · Han Tran, Doctoral Candidate starting Oct. 2018, University of Leipzig / MPI-EVA
- · Anja Becker, Bachelor's Thesis completed Nov. 2018, University of Leipzig
- · Daniel Cummings, Doctoral Candidate, University of New Mexico

Service Positions Held

- · Data Director, Tsimane Health and Life History Project, 2012-2016
- · Data Operations Supervisor, Department of Human Behavior, Ecology and Culture, MPI-EVA
- · MPI-EVA Worker's Council (Betriebsrat) reserve member, elected Nov. 2018
- · MPI-EVA Seminar Selection Committee
- · Webmaster, Evolutionary Anthropology Society, evanthsoc.org

Public White Papers & Tutorials

- · Beheim, B. (2017) Text Mining the Human Behavioral Ecology Bibliography, http://babeheim.com/2017/06/15/text-mining-the-HBEB.html
- · Beheim, B. (2017) Generating Ties to Explore Social Network Connectivity, http://babeheim.com/2017/06/02/modeling-network-tie-counts.html

- · Lubell, M., Beheim, B., Hillis, V. & Handy, S. (2009) Achieving Sustainability in California's Central Valley. UC Davis Sustainable Transportation Center
- · Beheim, B. & Reis, M. (2003) A Theory of Social Formalism: The Four Horsemen and the New Deal. Law and Society Review at the University of California, Santa Barbara II, pp. 85-94.

Symposium & Seminar Participation

- - · "The Future of Fieldsite Management", MPI-EVA departmental workshop
- 2017 · "The Social Diffusion of Gasoline Motors in the Bolivian Amazon", MPI-EVA departmental workshop
 - · "The Nine Circles of Database Hell", MPI-EVA departmental workshop
- 2016 "Transparency and reproducibility in observational research: lessons from anthropology", Yale's Day of Data, co-presented with Melanie Martin
 - · "Anthropological Research as Software Development" Yale Department of Anthropology
 - · "Insights from other anthropologists: Social diffusion of gasoline motors in the Bolivian Amazon", American Anthropological Association Conference
- 2015 · "Estimating Heritability of Reaction Norms" Dynamics of Wealth Inequality and Family Structure, Santa Fe Institute
- 2012 · "Strategic Social Learning and Evolutionary Arms Races in the Game of Go" Invited talk, Santa Fe Institute, Santa Fe, New Mexico
 - · "Inferring General Mechanisms of Cultural Evolution in Observational Settings" Dissertation Exit Seminar, UC Davis, Davis, California
 - · "Evolutionary Decomposition and the Dynamics of Inequality". Santa Fe Institute, Santa Fe, New Mexico
- "Developing Measures of Cultural Variation and Dynamics in Hokkaido, Japan". Radcliffe Institute, Harvard University, Cambridge, Massachusetts

Article Reviews

- · Journal of Theoretical Biology
- · Advances in Complex Systems
- · Human Nature
- · Science Advances
- · Cliodynamics
- · Plos ONE
- · Evolution and Human Behavior

Professional Memberships

- · Software Carpentry / Data Carpentry certification, expected December 2018
- · American Anthropological Association (since 2015)
- · Human Behavior and Evolution Society (since 2018)
- · European Human Behavior and Evolution Association (since 2017)
- · American Association of Physical Anthropologists (since 2015)
- · California Undergraduate Anthropology Conference (Principle Organizer), May 2004
- · Anthropology Student Union President (2003-2004)

Recent Collaborators

Jeremy Koster (U. of Cinncinati/MPI-EVA) · Masanori Takezawa (Hokudai) · Cody Ross (MPI-EVA) · Daniel Redhead (MPI-EVA) · Tom Kraft (UCSB) · Paul Hooper (SFI) · Herman Pontzer (Duke) · Michael Gurven (UCSB) · Adrian Jaeggi (UCSB/Emory) · Aaron Blackwell (UCSB) · Anne Pisor (UCSB) · Sam Bowles (SFI) · Paul Smaldino (UC Merced) · Ryan Baldini · Eric Schniter (Chapman) · Jonathan Stieglitz (IAST-Toulouse) · Richard McElreath (UCD) · Ben Trumble (UCSB) · Siobhan Mattison (UNM) · Martin Muller (UNM) · Melissa Emery Thompson (UNM) · Chris Rowan (UNM Cardiology) · Monique Borgerhoff Mulder (UCD)

Language & Technical Proficiency

- · Japanese, intermediate
- · Spanish, intermediate
- · German, basic
- · Tsimane', basic
- · Markup Languages: TeX, HTML, Markdown, JSON, YAML
- · Computing Environments: R, ArcGIS, Stata, MATLAB, UNIX shell
- · Mathematics through Calculus and Linear Algebra

Avocations

- · Go (weiqui): 5 kyu on Kisedo Go Server
- · Rowing: 101,000 meters rowed
- · Raspberry Pi programming
- · Cycling to work
- · Rock collecting
- · Music: Saxophone, Piano, Soprano Recorder