Sean Prall

Positions

University of California, Los Angeles Assistant Professor, Department of Anthropology 2024-University of Missouri Assistant Professor, Department of Anthropology 2019-2024 University of California, Los Angeles Postdoctoral Scholar, Center for Behavior, Evolution, and Culture 2016-2019 University of Washington Research Scientist, Department of Biomedical Informatics & Medical Education 2015-2016 *New Mexico State University* Visiting Assistant Professor, Department of Anthropology 2015 **Education**

Indiana University, Ph.D. Anthropology2014Boise State University, B.A. Anthropology2008

Grants

- 2023. National Science Foundation (BCS #2317312) & the Social Science Research Council Mercury Project. *NSF-SSCR: Sociodemographic Influences on Vaccine Decision-Making*. Role: PI. Co-PIs: Brooke Scelza & Helen Davis. \$442,478.
- 2012. Indiana Academy of Science Senior Research Grant. The role of dehydroepiandrosterone in immunocompetence and immunoredistribution in humans. \$2966.

Publications

JOURNAL ARTICLES

Prall SP, Scelza BA, Davis HE. 2024. Medical mistrust, discrimination, and healthcare experiences in a rural Namibian community. *Global Public Health* 19(1): 2346207.

Page AE, Ringen EJ, Koster J, Borgerhoff Mulder M, Kramer K, Shenk M, Steiglitz J, Starkweather K, Ziker J, Boyette A, Colleran H, Moya C, Du J, Mattison S, Greaves R, Sum C, Lui R, Lew-Levy S, Kiabiya Ntamboudila F, **Prall S**, Towner M, Blumfield T, Migliano AB, Major-Smith D, Dyble M, Salali GD, Chaudhary N, Derkx I, Ross C, Scelza B, Gurven M, Winterhalder B, Cortez C, Pacheco-Cobo L, Schacht R, Macfarlan SJ, Leonetti D, French JC, Alam N, tuz Zohora F, Sear R. 2024. Women's subsistence strategies predict fertility across cultures, but context matters. *Proceedings of the National Academy of Sciences* 121(9): e2318181121.

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Prall SP, Scelza BA. 2024. The causes and consequences of women's status in Himba pastoralists. *Evolution & Human Behavior* 45(1): 111-120.

Walker RS, Flinn MV, **Prall SP**, Hamilton HJ. 2023. Remote sensing evidence for population growth of isolated indigenous societies in Amazonia. *Scientific Reports* 13:22448.

Prall SP, Scelza BA, Trumble B. 2023. Stress and androgens in Himba women. *Adaptive Human Behavior & Physiology* 9: 371-386.

Swinford NA, **Prall SP**, Gopalan S, Williams CM, Sheehama J, Scelza BA, Henn BM. 2023. Increased homozygosity due to endogamy results in fitness consequences in a human population. *Proceedings of the National Academy of Sciences* 120(43) e2309552120.

Scelza BA, **Prall SP**. 2023. Only death will separate us: the role of extramarital partnerships among Himba pastoralists. *Archives of Sexual Behavior* 52: 1355-1363.

Swinford NA, Gallagher B, Sheehama J, Lin M, **Prall SP**, Scelza BA, Henn BM. 2023. Examination of runs of homozygosity in relation to height in an endogamous Namibian Population. *American Journal of Biological Anthropology* 180(1): 207-215.

Prall SP, Scelza BA. 2023. The dietary impacts of drought in a traditional pastoralist economy. *American Journal of Human Biology* 35(1): e23803. (selected as *Editors Choice*)

Prall SP, Scelza BA. 2022. The effect of mating market dynamics on partner preference and relationship quality among Himba pastoralists. *Science Advances* 8(18):eabm5629.

Starkweather KE, Keith MH, **Prall SP**, Alam N, tuz Zohora F, Thompson ME. 2021. Are fathers a good substitute for mothers? Paternal care and growth rates in Shodagor children. *Developmental Psychobiology* 63(6):e22148.

Scelza BA, **Prall SP**, Starkweather KE. 2021. The role of spousal separation on norms related to gender and sexuality among Himba pastoralists. *Social Sciences* 10(5):174.

Prall SP, Scelza BA. 2020. Resource demands reduce partner discrimination in Himba women. *Evolutionary Human Sciences* 2:E45 1-29.

Broesch T, Crittenden AN, Beheim BA, Blackwell AD, Bunce JA, Colleran H, Hagel K, Kline M, McElreath R, Nelson RG, Pisor AC, **Prall SP**, Pretelli I, Purzycki B, Quinn EA, Ross C, Scelza B, Starkweather K, Stieglitz J, Borgerhoff-Mulder M. 2020. Navigating cross-cultural research: methodological and ethical considerations. *Proceedings of the Royal Society B* 287(1935): 20201245.

Scelza BA, Atkinson E, **Prall SP**, McElreath R, Sheehama J, Henn BM. 2020. The ethics and logistics of field-based paternity studies. *Evolutionary Human Sciences* 2:E22 1-19.

Prall SP, Scelza BA. 2020. Why men invest in non-biological offspring: paternal care and paternity confidence among Himba pastoralists. *Proceedings of the Royal Society B* 287(1922): 20192890.

Scelza BA, **Prall SP**, Swinford N, Gopalan S, Atkinson E, McElreath R, Sheehama J, Henn BM. 2020. High rate of extra-pair paternity in a human population demonstrates diversity in human reproductive strategies. *Science Advances* 6(8):eaay6195.

Scelza BA, **Prall SP**, Starkweather K. 2020. Paternity and social obligations explain men's allocations to romantic partners in an experimental giving game. *Evolution and Human Behavior* 41:96-103.

Scelza BA, **Prall SP**, Blumenfeld T, Crittenden AN, Gurven M, Kline M, Koster J, Kuschnik G, Mattison SM, Pillsworth E, Shenk MK, Starkweather K, Stieglitz J, Sum CY, Yamaguchi K, McElreath R. 2020. Patterns of paternal investment predict cross-cultural variation in jealous response. *Nature Human Behaviour* 4:20-26.

Scelza BA, **Prall SP**, Levine N. 2019. The disequilibrium of double descent: changing inheritance norms among Himba pastoralists. *Philosophical Transactions of the Royal Society B* 374:20180072.

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Prall SP, Yetish G, Scelza BA, Siegel JM. 2018. The influence of age and sex specific labor demands on sleep in Namibian agro-pastoralists. *Sleep Health* 4(6):500-508

Scelza BA, **Prall SP**. 2018. Partner preferences in the context of concurrency: what Himba want in formal and informal partners. *Evolution and Human Behavior* 39:212-219.

Longman D, Prall SP, Shattuck EC, Stephen ID, Stock JT, Wells JCK, Muehlenbein MP. 2018. Short-term resource allocation during extensive athletic competition. *American Journal of Human Biology* 30: e23052.

Tieder JS, **Prall SP**, Beck J, Alberda E, Jensen D, Nair D, Carline JD. 2017. A survey of perceived effectiveness of Part 4 Maintenance of Certification. *Hospital Pediatrics*, 7(11):642-648.

Prall SP, Scelza BA. 2017. Child fosterage and sex-biased nutritional outcomes among Namibian Pastoralists. *American Journal of Human Biology* 29(6): e23058.

Hodges-Simeon CR, **Prall SP**, Blackwell A, Gurven M, Gaulin SJC. 2017. Adrenal maturation, nutritional status and mucosal immunity in Bolivian youth. *American Journal of Human Biology* 29(5): e23025.

Prall SP, Larson EE, Muehlenbein MP. 2017. The role of dehydroepiandrosterone on functional innate immune responses to acute stress. *Stress and Health* 33:656-664.

Prall SP, Muehlenbein MP. 2015. Dehydroepiandrosterone and multiple measures of functional immunity in young adults. *American Journal of Human Biology* 27(6):877-880.

Georgiev AV, Muehlenbein M, Prall SP, Emery-Thompson M, Maestripieri D. 2015. Male quality, dominance rank and mating success in free-ranging rhesus macaques. *Behavioral Ecology* 26(3):763-772.

Prall SP, Ambu L, Nathan S, Alsisto S, Ramirez D, Muehlenbein MP. 2015. Androgens and innate immunity in rehabilitated semi-captive Orangutans (Pongo pygmaeus morio). *American Journal of Primatology* 77(6):642-650.

Muehlenbein MP, Pacheco MA, Taylor JE, **Prall SP**, Ambu L, Nathan S, Alsisto S, Ramirez D, Escalante AA. 2015. Accelerated diversification of non-human primate malarias in Southeast Asia: adaptive radiation or geographic speciation? *Molecular Biology and Evolution* 32(2):422-439.

Prall SP, Muehlenbein MP. 2014. Testosterone and immune function in primates: A brief summary with methodological considerations. *International Journal of Primatology* 35(3-4): 805-824.

Muehlenbein MP, Ancrenaz M, Sakong R, Ambu L, **Prall SP**, Fuller G, Raghanti MA. 2012. Ape conservation physiology: Fecal glucocorticoid responses in wild Pongo pygmaeus morio following human visitation. *PLoS ONE* 7(3): e33357.

Streeter M, **Prall SP**, Hill C. 2008. Paleohistological Study of Pleistocene Mammoth (*Mammuthus*) Bone. *Current Research in the Pleistocene* 25:189-191.

BOOK CHAPTERS AND OTHER PUBLICATIONS

Prall SP, Scelza BA. 2024. On causes *and* consequences; a reply to Durkee. *Evolution and Human Behavior* 45(1): 123.

Prall SP, Muehlenbein MP. 2018. DHEA modulates immune function: a review of the evidence. In: G Litwack (ed), *Dehydroepiandrosterone*. Elsevier Press, p. 125-144.

Prall SP, Muehlenbein MP. 2017. Hormonal correlates of dominance. In: A Fuentes (ed), *International Encyclopedia of Primatology*. Wiley-Blackwell.

Muehlenbein MP, **Prall SP**, Peck HN. 2017. Immunity, hormones and life history trade-offs. In: Jasienska G, Sherry DS, Holmes DJ (eds). *The Arc of Life: Evolution and health over the life course*. Springer Press, p. 99-120.

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Presentations

Conference presentations and published abstracts

Prall SP, Scelza B, Davis H. 2024. Discrimination, medical mistrust, and vaccination decisions in Namibian pastoralists. *Society for Applied Anthropology*. Santa Fe, NM.

Prall SP, Walker RS. 2024. Bayesian networks approach to dyadic trait data from Namibian pastoralists. *American Journal of Human Biology* 36(S1): e24049.

Nowak TJ, Gassen J, **Prall SP**, Patel R, Thurman A, Arana D, Krishnan V, Muehlenbein MP. 2024. Bacteria Killing Assay; novel ex vivo method for immunocompetence in humans. *American Journal of Biological Anthropology* 183(S77): 126.

Prall SP, Scelza B, Davis H. 2023. Medical mistrust, social learning, and vaccination decisions in Namibian pastoralists. *International Society for Evolution, Medicine, & Public Health Annual Conference*. Irvine, CA.

Prall SP, Scelza B. 2023. Predictors and fitness-relevant outcomes of women's status in Himba pastoralists. *European Human Behavior and Evolution Association Conference*. London, UK.

Prall SP, Scelza B, Davis H. 2023. Medical mistrust, discrimination, and vaccination decisions in Namibian pastoralists. *Society for Cross-Cultural Research Annual Meeting*. San Juan, Puerto Rico.

Prall SP, Scelza B. 2022. Mating market dynamics on partner preference and relationship quality among Namibian agro-pastoralists. *European Human Behavior and Evolution Association Conference*. Online.

Prall SP, Scelza B. 2022. The causes and consequences of women's status in Himba pastoralists. *American Journal of Biological Anthropology* 177(S73):147.

Scelza B, **Prall SP**. 2022. Hidden Kin: the role of extramarital partners in the lives of Himba women. *American Journal of Biological Anthropology* 177(S73):161.

Swinford N, **Prall SP**, Scelza B, Henn B. 2022. Increased homozygosity due to endogamy results in fitness consequences in a human population. *American Journal of Biological Anthropology* 177(S73):177.

Prall SP, Scelza B. 2021. Effects of paternity and concurrency on the length of interbirth intervals in Himba women. *American Anthropological Association Annual Meeting*. Baltimore, MD.

Starkweather K, Keith M, **Prall SP**, Alam N, Thompson ME. 2021. Paternal care and growth rates in Shodagor children. *American Journal of Human Biology* 33(S1):42.

Prall SP, Scelza B, Trumble B. 2020. Androgen dynamics and reproductive socioecology in Himba Pastoralists. *American Journal of Human Biology* 32(S1):45.

Scelza B, **Prall SP**. 2020. The value of concurrency: the multimodal effects of romantic partnerships on women's health and well-being. *American Journal of Human Biology* 32(S1):51.

Prall SP, Scelza B. 2019. The reputational benefits of social fatherhood. *American Anthropological Association Annual Meeting*. Vancouver, BC.

Prall SP, Yetish G, Scelza B, Siegel J. 2019. Activity, labor demands, and sex shape sleep patterns among Himba pastoralists. *American Journal of Physical Anthropology* 168(S68):194.

Scelza B, **Prall SP**, Swinford N, Gopalan S, Atkinson A, McElreath R, Sheehama J, Henn B. 2019. Husband, lover, pater, genitor: concurrency and paternity in Himba pastoralists. *American Journal of Physical Anthropology* 168(S68):218.

Prall SP, Scelza B. 2018. Bad for boys, worse for girls: the sex-biased effects of fosterage on nutritional status in Himba children. *American Journal of Human Biology* 30: e23111.

Prall SP, Scelza B. 2018. Effects of resource scarcity and food insecurity on partner preference. *American Anthropological Association Annual Meeting*. San Jose, CA. (Winner of the EAS New Investigator Award)

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Prall SP, Scelza B. 2017. Fosterage on adult strength and body fat in Himba women. *American Journal of Physical Anthropology* 162(S64):320.

Muehlenbein MP, **Prall SP**, Shattuck EC, Sparks CS, Baker KC. 2017. Is primate sexual coloration an accurate indicator of immune functions? *American Journal of Physical Anthropology* 162(S64):294.

Prall SP, Scelza B. 2017. Characterizing perceptions of food insecurity in Himba women. *American Anthropological Association Annual Meeting*. Washington DC.

Prall SP, Scelza B. 2017. Cross-cultural perceptions of jealousy. *Human Behavior and Evolution Society Annual Meeting*. Boise, ID.

Prall SP, Scelza B. 2017. Fosterage and paternity uncertainty on childhood health and growth in Himba pastoralists. *California Workshop on Evolutionary Social Science*. San Luis Obispo, CA.

Prall SP, Muehlenbein MP. 2016. Adrenal development and androgen-immune interactions in orangutans (*Pongo pygmaeus morio*). *American Journal of Physical Anthropology* 156(S60):257.

Prall SP, Scelza B. 2016. Effects of paternity confidence on child health. *American Anthropological Association Annual Meeting*. Minneapolis, MN.

Georgiev AV, Muehlenbein MP, **Prall SP**, Emery Thompson M, Maestripieri D. 2015. Innate immune function and oxidative stress as measures of male quality in Cayo Santiago rhesus macaques. *American Journal of Physical Anthropology* 156(S60):143.

Prall SP, Muehlenbein MP. 2014. The roles of dehydroepiandrosterone and testosterone in innate immunity in college-aged adults. *American Journal of Human Biology* 26(2):277-8.

Prall SP. 2014. The role of dehydroepiandrosterone in human immune function. *Anthropology Graduate Student Association Symposium*, Indiana University Bloomington.

Prall SP, Muehlenbein MP. 2013. Androgens and immune function in human and nonhuman primates. *American Journal of Physical Anthropology* 150(S56):224.

Becker LL, **Prall SP**, Shattuck EC, Muehlenbein MP. 2013. The impact of testosterone fluctuations on competition in women. *American Journal of Physical Anthropology* 150(S56):77.

Muehlenbein MP, Ancrenaz M, Sakong R, Ambu L, **Prall SP**, Fuller G, Raghanti MA. 2012. Fecal glucocorticoid responses in wild orangutans following human visitation. *American Journal of Physical Anthropology* 147(S54):219.

Prall SP, Muehlenbein M. 2011. The ratio of salivary testosterone to dehydroepiandrosterone changes throughout recover from respiratory tract infections in men: implications for understanding hormone-mediated immunity. *American Journal of Human Biology* 23:273.

Prall SP, Blanchard S, Hurst D, Ireland E, Lewis C, Martinez L, Rich A, Singh E, Taboas C, Muehlenbein M. 2011. Salivary measures of testosterone and functional innate immunity are directly associated in a sample of healthy young adults. *American Journal of Physical Anthropology* S52:243.

Muehlenbein M, **Prall SP**, and Chester E. 2011. Development of a noninvasive salivary measure of functional immunity in humans. *American Journal of Human Biology* 23:267.

Invited Presentations

- 2024. Department of Anthropology, University of California, Los Angeles.
- 2024. Department of Anthropology, Washington State University.
- 2024. Department of Anthropology, University of Wyoming.
- 2023. Department of Anthropology, Baylor University.
- 2023. BEC Speaker Series, University of California, Los Angeles.

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- 2023. Darwin Week, College of Charleston, Charleston SC.
- 2022. University of Namibia, Oshakati, Namibia.
- 2022. Department of Anthropology, University of California, Santa Barbara.
- 2022. Evolutionary Anthropology Spring Colloquium Series, University of California, Davis.
- 2022. Anthropology Department Colloquium Series, University of Missouri.
- 2020. Focus on Africa Series, MU African Interdisciplinary Studies Hub, University of Missouri.
- 2019. Spring Speaker Series, Department of Anthropology, University of Nevada, Las Vegas.
- 2019. Department of Anthropology, New Mexico State University.
- 2019. Department of Anthropology, University of Missouri.
- 2016. BEC Speaker Series, University of California, Los Angeles.
- 2016. BASS Seminar Series, Department of Anthropology, University of Washington.
- 2015. Anthropology Undergraduate Organization, New Mexico State University.
- 2014. Animal Behavior Brownbag Seminar Series, Institute for Mind and Biology, University of Chicago.

Experience and Training

FIELD EXPERIENCE

2016-current - Kunene Rural Health and Demography Project, Kuenene Region, Namibia

Five seasons of fieldwork with Himba pastoralists. Collection of demographic, anthropometric, behavioral, reproductive, and social network data. Collection of salivary samples, DNA samples, and actigraphic data. Project Co-director.

2015 - Primate Ecotourism Survey, Kurland Township, South Africa

One season as associate instructor in an undergraduate field school focused on primate ecotourism. Student management and oversight, and collection of survey data.

2009 & 2011 - Sabah Ecohealth Project, Sandakan, Malaysia

Two seasons of data collection focused on ecotourism and the human-primate interface. Collection and processing of biological samples for virus extraction and identification from humans. Collection and processing of biological samples from orangutans and macaques.

2005 - Belize Valley Archaeological Reconnaissance Project, Cayo District, Belize One season of bio-archaeology field school at Cave's Branch Rockshelter.

WORKSHOPS

Energetics in Anthropology Workshop, Duke University. May 2022.

Professional Grant Development Workshop. Grant Training Center. April 2021.

Economic Network Dynamics of Wealth and Inequality. Santa Fe Institute. February 2020.

Field-site Management. Max Planck Institute for Evolutionary Anthropology, Department of Human Behavior, Ecology and Culture. Leipzig, Germany. June 2018.

Skills

Phlebotomy training from the Indiana University School of Medicine

Anthropometric assessment of body composition

Immunological Assays: hemolytic complement assay, serum and salivary bacteria killing assay, lymphocyte proliferation, dexamethasone suppression, flow cytometry, enzyme immunoassay

Enzyme immunoassay for assessment of hormone concentrations

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Blood borne Pathogen, Chemical, and Bio safety Level II Training R statistical software, Bayesian statistics, Filemaker database software Intermediate Spanish, basic Otjiherero

Teaching Experience

University of Missouri

Introduction to Anthropology Outbreaks and the Anthropology of Emerging Disease Evolution of Human Sexuality Evolutionary Medicine Comparative Social Organization

New Mexico State University

Human's Place in Nature Human Osteology Reproductive Ecology

Indiana University, Bloomington

Introduction to Bioanthropology Human Anatomy Lab Human Physiology Lab Biology Laboratory

Honors

Paper selected as *Editors Choice* for the January 2023 issue of AJHB. New Investigator Award, Evolutionary Anthropology Society, 2018. Departmental Nominee for the Wells Graduate Fellowship Award, IU, 2012. Liljeblad Cultural Anthropology Book Award, BSU, 2007. Eagle Scout Award, Boy Scouts of America, 2003.

Awards

Writing Fellowship, College of Arts & Sciences, MU. 2023-2024.
Faculty International Travel Award, College of Arts & Sciences, MU. 2022.
Early Career Fellowship. Energetics in Anthropology Workshop, Duke University. 2022.
William S. Pollitzer Student Travel Award, AAPA 2012, 2013, & 2014.
David C. Skomp Award, Department of Anthropology, Indiana University, Bloomington. 2013.
David C. Skomp Award, Department of Anthropology, Indiana University, Bloomington. 2011.

Professional Affiliations

American Anthropological Association - Evolutionary Anthropology Society American Association for the Advancement of Science*
American Association of Biological Anthropologists
Cultural Evolution Society
European Human Behaviour and Evolution Association*
Human Behavior and Evolution Society
Human Biology Association*

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Service

EXTRAMURAL SERVICE

Panelist, Cultural Anthropology. National Science Foundation, 2024.

HBA Student Awards Committee, 2024.

Panelist, Early Career Event, EHBEA 2023.

Session Chair, "Inequality," EHBEA 2023.

Panelist, Cultural Anthropology. National Science Foundation, 2023.

Session Chair, "Healthcare, health crises, and the intersection of social and gender identity," SCCR 2023. Panelist, Cultural Anthropology. National Science Foundation, 2022.

AAPA Program Committee, 2018, 2019, 2020, 2022, 2023.

HBA Student Awards Committee, 2018.

Intramural Service

Anthropology Graduate Student Association Faculty Liaison. 2023 - 2024. MU.

Chair of the Department of Anthropology Committee for Lectures & Communication. 2023 - 2024. MU. Anthropology Undergraduate Association Faculty Liaison. 2020-2023. MU.

STUDENT SUPERVISION

Kyle Clark, PhD 2021. Committee Member. MU.

Emma Tinker-Fortel, MA 2023. Committee member. MU.

AD-HOC REFEREEING

Adaptive Human Behavior and Physiology, American Journal of Human Biology, Annals of Human Biology, Biological Reviews, Evolutionary Anthropology, Evolutionary Human Sciences, Evolution and Human Behavior, Hormones and Behavior, Human Nature, Impact in Agricultural and Life Sciences, International Journal of Primatology, Nature Human Behaviour, Oxford University Press, Psychoneuroendocrinology, Routledge Anthropology, Scientific Reports, Social Sciences, Social Science & Medicine

Selected Media Coverage

2024 - Brunel Press Release - Are farmers always more fertile than foragers? Context matters, new study asserts

2023 - EurekAlert/AAAS & ScienceDaily - Study suggests that having common ancestors can jeopardize fertility for generations

2023 - Sausage of Science Podcast - Sean Prall on the Himba, dyadic peer ratings, and the giants of R

2023 - Kansas City Magazine - MU Anthropologist Says Relationships Are Better Between People With Similar Levels Of Desirability

2022 - Men's Health Australia - Science says you shouldn't punch above your weight in a relationship

2022 - Psychology Today - Don't date up: why it could be best to stay in your own league

2022 - EurekAlert/AAAS & ScienceDaily - Relationships are best between people of similar desirability, study finds

2022 - EurekAlert/AAAS - Ethical challenges in cross-cultural research

2020 - *The Conversation* - The deep evolutionary links between monogamy and fatherhood are more complicated than we thought, by Rob Brooks

2020 - EurekAlert/AAAS - Study of African society inspires broad thinking about human paternity, fidelity

2012 - Conservation Magazine - Stressful Vacation

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